

THE BODYOPUS

EXPERIENCE

By Lyle McDonald

(Pdf Version by ONE SMART COOKIE)

Foreword (By One Smart Cookie)

This pdf book is a compilation of 26 weeks worth of Lyle McDonald journaling his experiences whilst going through what at the time was considered a very revolutionary way to diet. I highly suggest that you read from start to finish and read again to make sure you have fully taken on board what has been journaled. That way if you do decide to try it for yourself you have a good solid idea of the background of what it all entails, which will help you immensely in doing it right first time.

I decided to put it all together in one easy to read ebook so that it wasn't lost as I feel that it is a wealth of info and a good base from which to start your ketogenic lifestyle from. And being in one book a heck of a lot easier than having to scroll through countless journals to find that single piece that you needed to ratify some small notion that may have been bugging you.

Take care and enjoy the journey just like I did.

Cookie.17/09/05

Subject: My bodyopus experience.week 1

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Date: 1996/05/06

Well, since there appears to be a lot of clamouring about **Bodyopus**, protocols, Results, etc. I thought I'd do a weekly write up (like some others) of my Personal results, training, etc.

Today marks my following the BO plan for exactly 7 days. As suggested by Dan, I eliminated carbs from my diet at 6pm two Sunday's ago. I took 50 mg of vanadyl sulphate (VS) with my last meal as well as prior to Bedtime to being lowering blood glucose.

Personal stats:
Bodyweight: 156 lbs.
BF% (by one site home calliper): 15.4%
Fat mass: 24 lbs.
Fat free mass: 132 lbs.

Monday: at about 1700 calories. Trained legs, back, and bis in the gym.
Followed with 20-30 minutes of cardio at about 120 BPM.
Still feeling ok at this point. Shouldn't have taken 3 doses of the Thermogenic cocktail (50 mg ephedrine, 200 mg caffeine, 150 mg aspirin)
As I couldn't sleep.

Tuesday: still about 1700 calories. Trained chest, delts, and tris in the Gym. Also followed with 30 minutes of cardio at 120 BPM.

Wednesday: In mild ketosis right on schedule. Did 60 minutes of cardio
Even though Dan says not to. It was not fun. Hunger starting to get Blunted at this point and find myself not eating meals.

Thursday: same as Wednesday but only 30 minutes of cardio.
Feeling really

Shitty at this point. Still skipping meals although I know it's bad.

Friday: 30 minutes more cardio on empty stomach. Ate one apple and one

Banana at 11 am to get out of ketosis. Start depletion workout at 1:30.

Did it in a Peripheral Heart Action type of circuit:

Squat

Chest

Row

Leg curl

Shoulder press

Lat pulldown

Leg extension

Biceps

Triceps

Leg press

Abs

Low back

Each exercise for 20-25 reps or about 3 reps short of failure whichever

Came first. It took about 20-25 minutes per circuit with 60" between

Exercises but I still only finished two total circuits. Not because I was

Tired but because I was getting bored.

Mental note: How much muscle glycogen can possible be left after 5 day

With no carbs? Is the mammoth grand depletion workout all that necessary?

Started my carbing. For the first 24 hours, I was perfect. Got up in the middle

of the night (damn you, Duchaine) to eat Powerbars and drink Ultra fuel

and switched to more solid carbs (sweet potatoes) later in the day. With each

meal I took 10 mg of vanadyl, 100 mg of chromium, and 125 mg of magnesium.

(I used a pill cutter to cut the chromium and magnesium tablets in half).

Going into the second 24, I was starting to get full. In fact, I didn't even

bother getting up in the middle of the night. I ate some carbs at breakfast

and lunch and then had a couple of final Ultrafuel and Designer Whey shakes before 6pm when I cut out carbs. Yuck. More red meat for dinner.

Ok, so it's Monday morning, what are the fruits of my labors. My weight had been as high as 157 on Sunday but it was back down to 153 this morning. Got out the calipers. Here was the breakdown.

Bodyweight: 153
BF%: 13.6
Fat mass: 21 lbs
Fat free mass: 132 lbs.

Wow! Even though Dan told me that 2 lbs/**week** was realistic, I somehow managed to drop 3 lbs of fat with zero loss of muscle tissue. If I keep this up, I'll be shredded in 4 or 5 weeks.

On top of that, all lifts in the gym were up this morning. I opted to work my whole body in one long session as I had the problem last **week** with my pecs and delts being sore when I began carbing. I intend to do about the same amount of cardio this **week** as last.

Other mental notes: Just how critical are the quality and frequency of carb feedings? I mean, assuming I stay below 16 g of carbs/kg of lean weight, will it make a huge difference if I eat glucose polymers or donuts as far as recomposition goes? How will this effect my workout on Monday?

I plan to test this next weekend when I go on the **Bodyopus** for slugs variation and eat junk food whenever I damn well please making sure to stay below about 5000 calories. We shall see what effects (if any) it has on the overall results.

Until next Monday,
Lyle McDonald, CSCS

Subject: My bodyopus experience.week 2 + some rantin

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Date: 1996/05/14

Before I get on with this week's summary of things, I need to clear the air about a couple of criticisms I got for the week 1 summary. Perhaps clear the air is the wrong way to put it. I simply want to address some of these criticisms so I don't get them again.

Most of the major ones centered around my method of measuring bodyfat. I am using the home calipers which use a one site (supra-iliac) measurement to estimate bodyfat percentage. There seem to be several major criticisms so I'll address them in turn.

1. One site vs several. The standard Jackson-Pollock equations use either a three site (pec, abdomen, and thigh for men or tricep, supra-iliac, and thigh for women) or a seven site (subscapularis, tricep, pec, abdomen, supra-iliac, thigh, and axillary). This is the standard in America. Other equations may use the bicep and medial calf as well as others.

I'm not convinced that the one site measurement is wholly accurate. In fact, I'd be very surprised if it gave much more than even a rough estimate of true bodyfat percentage. So, why am I choosing to use it? Well, it's quick and convenient for one. I can take it first thing in the morning on Monday's and be sure of two things:

1. Tester competency and consistency: I am always taking the measurement so I know it's at least consistently done compared to the others (see next section for a discussion of accuracy vs. consistency)
2. Same conditions: I stop carbs at 6pm on Sundays and take my measurements upon awakening (about 8am) on Mondays. Someone addressed the fact that low carb diets cause dehydration (see my third section). Well, assuming I carb'd more or less consistently and drank more or less consistently, my hydration level should be more or less consistent since I will have gone about the same amount of time with carbs.

2. Accuracy vs. consistency: As mentioned, the one site measurement has been questioned as far as accuracy is concerned which is valid. However, something that seems to have been forgotten is that no measurement of bodyfat (short of being dissected and weighed) is

100% accurate. All caliper equations are derived from hydrostatic weighing which was derived from dissection of cadavers. This means that there are two levels of estimation that are present. In addition, all of the assumptions that caliper measurements are made under (including homogeneity of skinfold, densities and so forth) are currently being questioned by some researchers. So, truth be told, no caliper measurement is truly accurate. Thus, none of them (whether you do a 7 site or a 1 site) will give you more than relative change anyway.

Here's an easier example to understand. We have two scales. When you hop on one, it says you weight 150 lbs. The second says you way 146. Which one is correct? Ask anyone who's dieting and they will tell you the second is correct. The point being that it doesn't really matter which one is 100% accurate. Now you reweigh yourself 4 weeks after dieting and exercising. The first scale shows you at 146. What do you think the second will show? Well, assuming they are both still calibrated correctly, the second should put you 142. Despite the fact that you can't tell which was wholly accurate, as long as you weigh consistently on one scale or the other, you can get an indication of relative change. Of course, if you weighed yourself the first time on the first scale at 150 and the second time on the second scale at 142, you'd think you had lost 8 lbs. Consistency, not accuracy, is what I'm striving for here.

(Anyone who wants to see the issue of body composition measurement analyzed in mind-numbing detail is encouraged to pick up Timothy Lohman's "Advances in Body Composition Assessment" from Human Kinetics Publishers.)

3. Dehydration: One individual brought up the fact that dehydration will affect bodyfat measurement and that the low carb diet promotes dehydration. This is correct sort of. Now I have to bore you with some more physiology.

For simplicity, the body is frequently divided up into a two compartment model (and, yes, I know there are more complicated models out there but this is the most simplistic). As the name suggests, we differentiate two components which are:

1. Fat mass (FM): this is all fat except for the small amount of essential fat (about 3% in males and roughly 10-12% in females)
2. Fat free mass (FFM) or Lean Body Mass (LBM): Everything else. This includes water, muscle, bone, organs, skin, and everything else in your body. (As an aside, this is what allowed the hucksters at EAS to make such ridiculous claims about creatine. The studies found increases in lean body mass with creatine supplementation. While the implication was that the gains were in muscle, if you read the articles closely, they never came out and said that exactly as they couldn't be sure. All they said was the creatine caused gains in LBM but that could just as easily be water. You can increase LBM by eating a bunch of sodium as it causes you to retain water. Which is basically what creatine does as well although the sodium won't make you stronger.)

Ok, so what? Well, number one, I'm taking my body comp measurements under similar conditions so hydration or dehydration level should be more or less the same. Again, consistency, not absolute accuracy is what I'm trying to achieve here. Number two, in theory at least, dehydration shouldn't radically affect absolute body fat amounts although percentages will change. Fat is maybe 3% water by weight and the rest is stored triglyceride. So, changes in dehydration with a low carb diet (which are mainly occurring through dropping of water stored in the muscles anyhow) *shouldn't* be a major factor with skinfold measurements. As a brief aside though, hydration does drastically affect Bioelectrical Impedance bodyfat measurements as it's using total body water to determine bodyfat.

Now, my statement about hydration state affecting percentages but not absolute amounts may have some confused. So, here's the explanation.

Let's say I have 200 lbs. of LBM and 20 lbs. of fat (I wish). That is a bodyfat of $20/200 = 10\%$. Now, I start a low carb diet. During the first 2 days, I drop 5 lbs. of water and glycogen (which, recall, is part of the fat free mass component). I now have 20 lbs. of fat and 195 lbs. of FFM. So, my bodyfat percentage (if measured) should increase to: $20/195 = 10.25\%$. So, even though the percentage of bodyfat went up, the absolute amount of fat in pounds doesn't change.

This is yet another way to make false claims about a supplement affecting bodyfat percentage. Let's take our 200 lb., 10% bodyfat individual again and feed him creatine for 10 days at high doses. He gains 10 lbs. of water but nothing else changes. His bodyfat% is now: $20/210 = 9.5\%$ and our intrepid researchers can now claim that creatine caused a .5% drop in bodyfat without dieting. Which is roughly true. But, he didn't really lose any fat. This is also how bodybuilders can claim such hideously low bodyfat percentages. It's probably more or less physiologically impossible to get to less than 2 or 3 lbs. of fat on the human body. But, by increasing muscle mass, and total body water (through things like creatine, sodium/potassium loading, etc), they can change the ratio of fat mass to fat free mass.

Now, please quit bitching about how inaccurate my methods are. I'm not doing clinical research here. I'm just trying to be generally helpful as I guinea pig my way to (I hope, I hope, I hope) 6% bodyfat and perhaps help others do the same with Bodyopus without making any mistakes I stumble on.

Lyle McDonald

Alright, it's week two and here's the score so far.
Starting: Monday 5-6-96

Bodyweight: 153
BF%: 13.6
Fat mass: 21 lbs.
Fat free mass: 132 lbs.

Recall that this was down 3 lbs. of fat from my first measurement. I doubt that I'll keep up this rate of fat loss without starting to lose some muscle. Even still, my goal is about 7% bodyfat which is an additional 11 lbs. of fat loss. I figure 4-5 weeks. Which is just in time for my skating season to start. I'll be lean, strong and look good (which, of course, is the real reason I'm putting myself through this).

My week at a glance:

Sunday: Finished off my carbing with two small Ultra Fuel and Designer drinks with the last one at 6pm. Took 50 mg of Vanadyl before bed to start driving down blood glucose.

Monday: 1:15 of weights. Decided to go work the whole body in one session in a roughly HIT fashion (1-2 sets of each exercise for 6-10 reps to failure, one exercise per bodypart). Squats were the exception and were worked in a 5X5 format. This decision was made due to the fact that some bodyparts worked on Tuesday of last week were still sore on Friday of last week possibly inhibiting carb-up. Although I didn't get the awesome pump that you are supposed to, all my lifts did go up. I either got the same reps with a higher weight or more reps with the same weight. Even if the one-site caliper isn't accurate, the fact that my lifts went up implies that I didn't lose any muscle. Started getting nauseous towards the end and finished up with 10' on the Lifecycle.

Diet: Ate my standard 1700 calories or so (recall bodyweight is 153 and my body temp isn't all it should be.) My diet is pretty repetitive throughout the week. It is roughly:

Post workout: 1 scoop Designer with 1 T flax and a packet of Equal

Breakfast: 4 eggs scrambled

Lunch 1: canned tuna with 2 T mayo

Lunch 2: same as lunch 1

Dinner: 3-4 oz of ground beef with some mustard for flavour

Before bedtime: 1 scoop Designer with 1 T flax and Equal

Supplements: took 50 mg Vanadyl with 200-mcg chromium and 250 mg magnesium with my first and last shake in addition to my normal vitamins (one a day, extra A, C, and E, and calcium). Also took ECA twice.

Tuesday: Did 45' on the Lifecycle.

Diet: same as Monday.

supplements: same as Monday.

Notes: Still not in ketosis perhaps from drinking too much diet soda (some individuals find that the citric acid in most sodas keep them out of ketosis). Took ECA too late in day and didn't get much sleep again.

Wednesday: 1 hour on the Lifecycle (yawn) at a heart rate of 155. My butt is numb. Thank grog for portable tape players. (Ok, big time in-joke here. When I worked food service in college, we had an industrial trash compactor in the basement which we called Grog. Due to massive boredom, we developed an entire mythology around Grog. Taking the trash down was referred to as making an offering to Grog. If your offering was worthy, Grog would accept it. If not, he (it?) wouldn't. Since Grog worked sporadically at best, this analogy worked well. Our small trash bins were the Hell Spawn of Grog. What can I tell you, we were really bored. You don't even want to know about the time I made 'donuts' out of pizza dough dipped in sugar. Trust me on this one.)

Diet: same as Monday. Boring, yes. But, to be ripped, I can deal with it. I can eat for variety on the weekends.

Supplements: dropped vanadyl, magnesium, and chromium as there is no glucose to clear and they are not needed. Probably good to give my liver a break from the vanadyl anyhow.

Notes: I feel much better this week than the same time last week. I'm starting to adapt to the low carbohydrates. Not that I feel like running a marathon or anything but I don't feel like warmed over shit. I can see some slight differences in abdominal fat and am starting to tighten up nicely. If I flex really, really hard I can see my abs underneath the blubber. 4 weeks and I won't have to do that anymore to see them.

Thursday: Went for a 30' walk in the morning as I slept too late to get to the gym. Feel really good considering the lack of carbs. Only a trace of ketones this morning which is a bit strange but I'm assuming (hoping) that they are being burned and I didn't accidentally eat too many carbs yesterday (doubtful but they sneak in the damndest of places). I look considerably leaner today. Just for fun, I took body comp with the home caliper. It put me at 12.7% (more because I moved up to the next age bracket which shows you just how screwed up these equations are anyhow) at a weight of 148 (dehydration). This puts me at 18.8 lbs. of fat (2 lbs. down) and 129 lbs. of lean (3 lbs. down but don't forget that lean weight also includes water and glycogen and I know I'm dehydrated/depleted). Muscles are very flat looking and I feel even punier than my normal puny self.

Being the masochist I am, I sat on the damn Lifecycle for another hour tonight. My butt is still numb. At least the carb-up is in sight.

Friday: Alright, depletion and carb up time. Ate very little this morning: one Designer w/Flax shake and some fried pork skins. The depletion workout was a bit different this week. I decided to use the NFPT methodology for high rep circuit training instead of the giant loop of last week. They suggest using three primary exercises (leg press, bench press, row) to use the largest muscle mass possible and I figure the other bodypart will get enough indirect work to deplete and get their enzymes churning.

The circuit was:

Leg press
Cable row
DB Incline bench
Leg press
Undergrip pulldown
DB Flat bench press
abs or low back (alternated each circuit)

All done for fairly hard sets of 20-25 reps.

I finished 5 circuits in just under an hour and then hit 5 minutes on the Versa climber as I was getting bored and wanted to finish up. I'm not sure how anyone keeps from getting bored doing this for 2 hours and I'm still not convinced that it's necessary (see last week's mental notes).

As mentioned in my first update, I decided to test my hypothesis that carb quality and frequency isn't all that critical (in terms of spillover to fat cells) as long as you stay below the total amount of carbs (16 g/kg of lean mass or about 960 grams for me). I plan to do this weekends recarb on junk food during the first 24 hours before switching over to complex sources during the second.

Meal 1: 3 Butterfinger bars plus 1/2 scoop Designer
Meal 2: same as meal 1 + a raisin muffin
Meal 3: Two powerbars + some Captain Crunch Crunchberries

I did not get up in the middle of the night to eat this time as I had some extra carbs (taken with some All Bran fiber) with Vanadyl, chromium, and magnesium prior to bed. Wish I had some Glucophage.

Saturday: Weight is up about 3 lbs. from yesterday. I'm waiting until Monday morning to remeasure body comp.
Two more powerbars and the rest of the box of Captain Crunch for breakfast. At this point eating became random. Junk food most of Saturday including some great birthday cake.

Sunday: Starting to mellow out on the carbs at this point as I'm getting

BF%: 12.2%
Fat mass: 18.8
Fat free mass: 135.2

*Supra-iliac was not used for determination of body-fat percentage but merely as an additional site to track changes.

Well, the results from the 3 site are actually very close (in both percentage and absolute numbers although it shows me with a bit less fat and a bit more muscle. Therefore the 3 site must be more correct, right? ;-)) to the one site caliper. I'll keep taking both measurements each Monday to see if the correlation remains similar (i.e. will a .5% drop in the 3 site estimation be echoed by a .5% drop in the one site estimation. I doubt it as one major drawback to the one site measurement is it's lack of accuracy for small changes. I mean, it shows a drop in 1 mm at the supra-iliac as a huge, almost 2% drop in bodyfat. So, it's ability to discriminate small changes is not as good as with more sites). Also, as I get leaner, I won't really be paying attention to the bodyfat estimate as they tend to become less accurate at either the extremes of fatness or leanness and I'll simply compare the actual readings in mm.

See you next Monday,
Lyle McDonald, CSCS

P.S. I apologize for the formatting on the body composition measurements. I'm keeping a diary of sorts on a word processing program and then just pasting it in.

Also, I noticed a couple of stupid typos. In the rant section I mistyped 'weight' as 'weight' and then 'way'. And, in the workout summary, the second dip workout should have been '2 sets of 9 and 8 reps with 20 extra pounds hanging' instead of 15.

Subject : My bodyopus experience.week3

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Date: 1996/05/21

Prologue:

Thought I'd address another topic with my pre-experience post. Several people have asked me about bodyfat measurement since the week 2 update. Here's how I'm doing it.

I am using the generalized Jackson-Pollock equations for estimation

of bodyfat. They rely on three sites (chest, abdomen and thigh for men and tricep, supra-iliac and thigh for women). The problem with most body fat prediction equations is they are very population specific. That is, if you have an equation developed with a sample of white males between the age of 20 and 30, you cannot get accurate estimates (although they will be consistent) for Asian women teenagers. The Jackson-Pollock equations are generalized estimation equations which give decent accuracy/consistency for most population groups.

The site should be measured (for you home technicians) at the following locations:

1. Chest: A diagonal fold taken midway between the anterior axillary line and the nipple.
2. Abdomen: a horizontal fold taken 1 inch to the right of the umbilicus (weenie speak for the belly button)
3. Thigh: a vertical fold taken halfway between the hip and knee joints.
4. Tricep: a vertical fold on the back of the arm halfway between the olecranon and acromion process.
5. Supra-iliac: a diagonal fold taken above the crest of the ilium when an imaginary line would come down from the anterior axillary line.
6. Thigh for women: same.

Basically, you must raise a double skinfold pulling the fat away from the muscle. This takes practice. Place the caliper about 1cm from your fingers and release the handles. Wait about 2 seconds and then take the reading. You should take the average of three readings and all should be within 1-2 mm of each other. Also, you should release the fold between measurements to avoid compression of the skin.

It is possible for males to measure themselves although it takes some practice. Abs and thigh are easy. Chest is tougher. Thanks to MF for explaining how to do it. Take the caliper in your right hand and extend your arm. Raise the skinfold with your left hand. By bending your elbow and working the trigger with the thumb of your right hand, you can take your own measurement.

Girls are out of luck as it's impossible to do your own triceps skinfold.

Oh, for the record, I'm using the Slimguide, cheap-ass looking plastic caliper. Yes, Lange calipers are nicer but they are about 140\$ more money. For anyone who gets the Slimguide, here's a tidbit that Dan missed in his caliper article a while back. Lange calipers are the norm in the US. They are the caliper that the Jackson-Pollock and most other US prediction equations were developed with. Slimguide is the norm in Canada and is based on the Harpenden

caliper from London. The Harpenden/Slimguide caliper has a higher spring tension than the Lange. Meaning that, if you took measurements with both calipers, the Harpenden/Slimguide would consistently be lower than the Lange. If you use these numbers in the Jackson-Pollock equations, you will underestimate bodyfat (accuracy is off although consistency is fine).

For \$10, I'll tell you how much the Slimguide is off as I've tested several people with both.

Ok, just kidding, if you use Slimguide calipers with Jackson-Pollock equations, you need to add 2mm to each measurement made with the Slimguide. EXCEPT for any that are simply skin and read 4mm or lower. This is about the lowest that any of the calipers can measure. A 4mm measurement on the Slimguide is a 4mm measurement on the Lange.

So, for comparison, if my measurements were:

Slimguide
Chest: 4mm
Abs: 24 mm
Thigh: 6mm

My comparable Lange numbers come out to:

Chest: 4mm
Abs: 26 mm
Thigh: 8 mm

And, yes, I have checked this out on myself and it hold true. And, I took both measurements on myself so I know that it was accurate. So, no bitching.

Lyle McDonald, CSCS

Ok, it's week three and here's the score so far.

One site measurement:

Date:	Monday 5-13-96	Change from last week
Bodyweight:	154	+1
BF%:	12.7%	-.9%
Fat mass:	19.5 lbs.	-1.5
Fat free mass:	134.5 lbs.	+2.5

Three site measurement:

Here's how it worked out:

Date:	Monday 5-12-96
Pec (mm)	7
Abs (mm)	27

Thigh (mm)	8
Supra iliac (mm)*	18
Total of 3 (mm)	42
Bodyweight:	154
BF%:	12.2%
Fat mass:	18.8
Fat free mass:	135.2

My week at a glance:

Sunday: Finished off my carbing with two small Ultra Fuel and Designer drinks with the last one at 6pm. Took 50 mg of Vanadyl before bed to start driving down blood glucose.

Monday: About an hour or so of weights. Squats still 5X5 and then worked chins, leg curls, dips, and leg extensions in a semi-loop for 2 work sets of 6-10 with 1:30 rest in-between each set (giving a total of 6' rest between sets of the same exercise). Finished off with 10' on the bike.

Diet: Ate my standard 1700 calories or so (recall bodyweight is 153 and my body temp isn't all it should be.) My diet is pretty repetitive throughout the week. It is roughly:

Post workout: 1 scoop Designer with 1 T flax and a packet of Equal

Breakfast: 4 eggs scrambled

Lunch 1: canned tuna with 2 T mayo

Lunch 2: same as lunch 1

Dinner: 3-4 oz of ground beef with some mustard for flavour

Before bedtime: 1 scoop Designer with 1 T flax and Equal

Supplements: took 50 mg Vanadyl with 200 mcg chromium and 250 mg magnesium with my first and last shake in addition to my normal vitamins (one a day, extra A, C, and E, and calcium). Also took ECA twice.

Tuesday: Did 45' on the Lifecycle in the morning with pulse below 155 (using Maffetone's 180-age formula). Got talked into in-line skating tonight so I did an additional 30-45' of aerobics at varying intensities.

Diet: same as Monday.

supplements: same as Monday.

Notes:

Wednesday: Hit mild ketosis this morning, a bit later than usual. Could have been due to any number of factors but Duchaine says that refilled liver glycogen (due to high intake of fructose and sucrose during recarb) will slow entry into ketosis.

Diet: same as Monday. Boring, yes. But, to be ripped, I can deal with it. I can eat for variety on the weekends.

Supplements: dropped vanadyl, magnesium, and chromium as there is no glucose to clear and they are not needed. Probably good to give my liver a break from the vanadyl anyhow.

Notes: I feel even better this week than the same time last week. There is almost no residual fatigue from the lack of carbs and I feel that I have adapted in full to this diet.

Other notes: The new Muscle Media 2000 came today (hey, I didn't say they were pertinent 'other notes') and boy did it suck the big one. I mean more than usual. Not only the usual EAS infomercials but not even really any training articles of substance. Dan's Rant was funny of course. Phillip's tried to write off his taking over EAS (rumours abound that he is ditching Almada in the same way that he broke with Connely). This blurb mentions that Almada is going to go get his PhD. I wonder if he'll list his credentials as Anthony Almada, B.Sc., M.Sc., PhD. and really show what an ass he is (for those unfamiliar with the etiquette for placing letters after one's names, it's typically bad form to put anything but your highest degree attained. That is, putting B.Sc., M.Sc. is redundant as the possession of a masters encompasses and implies the possession of a bachelor's. My putting all those letters after my name is technically incorrect and poor form but I do it only to point out just how silly this war of certifications/degrees has become.) Even Coach Poliquin (who's articles I read with great zeal) couldn't come up with anything better to write about than supplements to increase focus in the gym (yawn.) I hope the new Peak Training Journal gets here soon (if at all. Anyone hear any more rumours that PTJ has folded? It's a great magazine although I've only read one issue so far). Hell, at least the new MDFH will have some semi-naked pics to keep me interested for more than the 10 minutes it took me to read this month's MM2K.

Thursday: Thursday was a weird day. Due to a hectic as hell schedule at the gym (I'm a personal trainer in case anyone out there didn't know or happens to care), I only ate about 200 calories (1 Scoop Designer and 1 T Olive oil) between 9 am and 6pm. Basically, I overslept and didn't have time to take anything to work. Not that I'd have had time to eat it anyway. Strangely, I wasn't that hungry all day. I started to lag during my last appointment and only made it through on one dose of ECA and sheer willpower. Obviously, I ate when I got home. Still, I only came in at about 800 calories for the day if that. Now, checking ketones I found myself in very deep ketosis (like, the stix were almost dark purple) which contradicts what Duchaine has written. In a previous MM2000, he wrote that you should only show ketones in the evening if your activity level is too low or you are eating too many calories. Well, at 200 calories for the day, no way was I eating too many calories. Strange happenings. Needless to say (so why say it, right), I didn't do any cardio today.

Oh, yeah, speaking of the devil, the new MDFH came today. Although

most of the articles sucked (even Colgan isn't reporting on anything of interest anymore), it had better semi-porn pics than MM2000.

Friday: Woke up and my tongue was purple. Toxic reaction to vanadyl? Nah, I drank some grape kool aid last night. Anyway, decided to recheck body-comp to see how it would compare to the remeasure on Monday (and check for spillover).

The 3 site came out to:

Date:	Friday 5-17-96
Pec (mm)	6 (down from 7)
Abs (mm)	27 (no change)
Thigh (mm)	8 (no change)
Supra iliac (mm)*	18 (no change)
Total of 3 (mm)	41 (down from 42)
Bodyweight:	145 (down from 153)
BF%:	12.2% (no change)
Fat mass:	17.7 (down from 18.8)
Fat free mass:	129 (down from 135 but a lot is dehydration)

Supra-iliac was not used for determination of bodyfat but only for comparison purposes.

So, even though the relative percent bodyfat did not change, due to changes in total bodyweight, the total fat mass went down (see Update week 2 for an explanation of this).

Hit some fruit about 2 hours before the depletion workout. Then ate some more carbs while I was waiting. Basically did the same thing as last week but managed to add another circuit (for a total of 6 in about 1 hour 10 minutes) before throwing in the towel. This time it wasn't so much from getting bored as being just worn out. I felt like I do when I 'bonk' while riding my bike. It's like when you first get into low blood sugar but don't have ketones just yet, you just feel overall like shit. Started the carb up with some Ultra-fuel and Designer protein.

The circuit was:

Leg press
Pull
Push
abs
Leg press
Pull
Push
low back

I basically choose pull and push exercises (as well as leg presses)

based on what was available at the gym. I did incline machine benches, incline DB's, seated rows with narrow grip and wide, undergrip pulldowns, medium grip overhand pulldowns, squats, leg presses, even some leg curls and extension. All sets were done for fairly hard sets of 20-25 reps.

Ate my first four meals right on schedule although still not as strictly as Dan suggests. Had some extra carbs (in the form of chocolate donuts) before bed with some fiber to avoid getting up in the middle of the night.

Saturday: Bodyweight is up 4 lbs. Having some yoghurt and Lucky Charms (Olympic Edition!) for breakfast. Basically, I just ate when hungry and didn't when full not paying much attention to quality and/or quantity of carbs.

Sunday: Although Dan warns not to, I did work out today. Went for a nice easy 25 mile bike ride in the morning on no breakfast after a dose of ECA. Ate some extra carbs afterwards to make up for it. Also going for a skate this afternoon with some friends.

Ok, maybe it will screw my carbing up (and we'll see how it affects my workout tomorrow morning) but I'm taking a couple of things into consideration:

1. I'm not getting in shape for a contest so not achieving perfect carb-up with no spillover isn't that big of a deal.
2. Any diet that is so restrictive that you won't stick to it isn't a good diet (or, as Dan puts it, good advice not followed is still bad advice.)

Still finished carbing at 6pm with a small shake after my skate. Yuck, back to protein and grease again.

Some other notes about this week: despite not taking a fiber supplement at all during the last few weeks, my bowel movements are starting to increase somewhat in regularity. Not quite up to one per day but getting there. However, one thing I've noticed is that about Wednesday or Thursday, my stool (medical term for shit) is green. I don't mean the light brown you usually see when you've got diarrhoea, I mean green like grass. Anyone else out there have this happen to them? Anyone out there have any idea why this might be happening?

Ok, time for the Monday morning weigh-in/body-comp:

Date:	Monday 5-6-96	Monday 5-13-96	Change
Bodyweight:	153	154	+1
BF%:	13.6%	12.7%	-.9%
Fat mass:	21 lbs.	19.5 lbs.	-1.5

Fat free mass: 132 lbs. 134.5 lbs.
+2.5

Now, recall that measurement on Thursday put me at 18.8 lbs. of fat so it looks like I may have regained some fat with my less than strict, junk-food carb up this weekend. In the big scheme of things, it's no big deal to me as it sure made the weekend a lot more enjoyable and less of a pain in the ass. Also, since I didn't track calories, there's no way to know for sure if I went over the 16 g/kg amount or not (once I started with the junk food, all notions of keeping records went straight out the window.)

Three site measurement:

Here's how it worked out:

Date:	5-20-96	5-20-96	Change
Pec (mm)	7	6	-1
Abs (mm)	27	27	NC
Thigh (mm)	8	9	+1
Supra iliac (mm)*	18	17.5	-.5
Total of 3 (mm)	42	42	NC
Bodyweight:	154	151	-3
BF%:	12.2%	12.2%	NC
Fat mass:	18.8	18.4	-.4 lbs.
Fat free mass:	135.2	132.6	-2.8 lbs.

Ok, observations: This is the first week that I seemed to lose both fat and lean body mass. Also, total fat loss was fairly small. A couple of possibilities as to why. I didn't do my normal amount of cardio last week due to a rather hectic work schedule. LBM is a function of both muscle and water, glycogen, etc so it's hard to say whether or not the loss was one of muscle or something else. But, seeing as I rode my bike AND skated yesterday, I can assume that some of the loss in LBM was due to glycogen depletion/dehydration. This week's workout should give the answer to that one (I'm going under the assumption that if lifts go up or don't change, I'm not losing muscle). Also, my haphazard recarbing may be causing more spillover that I think it is. In fact, compared to my 3-site measurement on Friday, it appears that I regained .7 lbs. of fat over the weekend.

Well, workout wise, it was up in the air. Squats stalled somewhat but that could just as easily be tied to the fact that I rode my bike 2 hours yesterday in the hot sun. Upper body lifts improved so I still take it that I'm not losing muscle.

Lyle McDonald, B.S., C.S.C.S., C.P.T., A.C.S.M., C.P.R., First Aid soon to be NFPT certified, maybe to get ISSA certified (hey, I like letters)

P.S. And, no I don't think that all these letters really impress anyone

but me and my mother, I'm making a little joke in reference to my comments about Almada above. You guys have no sense of humour. But, I bet you think I don't either.

P.S.S. Bad health/fitness joke of the week. This is a true story.

At work this week, our dietician had a small mishap.

While trying to transport her plastic food pyramid to a class, it tipped over and spilled.

I immediately said "I guess her diet wasn't balanced." Groan.

Alright, say it with me: "Use a pun, go to jail."

I know there are a couple of people laughing at this.

P.P.S.S. Noticed a couple of screw-ups in my post above. the next to last single site body composition measurement was left over from the week 2 update and should be patently ignored. On the three site measurement from this morning, the second days should (shit, scratch that). The first day should be 5-13-96, NOT 5-20-96. Again, sorry about the formatting but my text editor is acting screwy.

Lyle McDonald, etc., etc.

Subject : My bodyopus experience.week 4

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Date: 1996/05/27

Ok, it's week four and here's the score so far.

Three site measurement:

Here's how it worked out:

Date:	5-13-96	5-20-96	Change
Pec (mm)	7	6	-1
Abs (mm)	27	27	NC
Thigh (mm)	8	9	+1
Supra iliac (mm)*	18	17.5	-.5
Total of 3 (mm)	42	42	NC
Bodyweight:	154	151	-3
BF%:	12.2%	12.2%	NC
Fat mass:	18.8	18.4	-.4 lbs.

Fat free mass: 135.2 132.6 -2.8 lbs.

My week at a glance:

Sunday: Did something a bit different this Sunday. Some friends wanted to go riding so we put in about 25 miles cycling Sunday morning. I did this ride on an empty stomach and a dose of ECA. Later that evening, I also went skating for about 30' with some other friends. Now, Dan says not to exercise during recomposition as it will affect the carb-up (not surprisingly) so the question is how will this affect overall results. From above, you can see that fat free mass was down from last Monday but there's no way to tell whether it was water/glycogen or actual muscle. Finished carbing at 6pm with Ultra Fuel and Designer. Took 50 mg vanadyl at bedtime.

Monday: About an hour or so of weights. Squats stalled a bit from last week. But, my legs were tired from Sunday. Upper body lifts (chins and dips) both improved as did leg curls.

Diet: Ate my standard 1700 calories or so (recall bodyweight is 153 and my body temp isn't all it should be.) My diet is pretty repetitive throughout the week. It is roughly:

Post workout: 1 scoop Designer with 1 T flax and a packet of Equal

Breakfast: 4 eggs scrambled

Lunch 1: canned tuna with 2 T mayo

Lunch 2: same as lunch 1

Dinner: 3-4 oz of ground beef with some mustard for flavour

Before bedtime: 1 scoop Designer with 1 T flax and Equal

Supplements: took 50 mg Vanadyl with 200 mcg chromium and 250 mg magnesium with my first and last shake in addition to my normal vitamins (one a day, extra A, C, and E, and calcium). Also took ECA twice.

Tuesday: Went ahead and did another weight workout (delts, bis, tris) this morning. Followed it up with interval training on the stairmaster. Did 10X60" with 60" rest alternating between level 10 for the hard parts and level 5 for the recovery. Here's my thinking. For ketosis to occur, you need both to deplete liver glycogen and get blood glucose down. Interval training burns tons of carbs. So, if there are any carbs left at this point, this *may* be the best way to get rid of them.

Diet: same as Monday.

supplements: same as Monday but not vanadyl, mag, or chromium before bed as I'm already in ketosis.

Notes: I hit ketosis early this afternoon which was earlier than last week. It could be any one of several things:

1. The bike ride on Sunday
2. Lifting 2 days this week
3. The intervals

My guess is that 1 and 3 are the greater determinants in this case.

Wednesday: In fairly deep ketosis this morning. Put in 45' on the Lifecycle to burn some of them off. Not as butt numbing as a full hour but damn close. Reading "The Diamond Age" by Neal Stephenson helped. Great book. I highly recommend it as well as his first "Snow Crash" for those who like cutting edge sci-fi.

Diet: same.

Supplements: same.

Other notes: none come to mind.

Thursday: Ok, woke up this morning to bad news. Been monitoring morning temp (an indicator of thyroid levels and metabolic rate) and it's dropped (not that it started off great anyway). Normally, I run about 97.4-97.8 (borderline low) but this morning I was at 96.8 (very low). Dan has written that this will occur about the 4 week mark with most diets, especially if you are taking ephedrine and the like (which inhibit conversion of T4 to active T3). Subjectively, fat loss seems to have slowed (I'll measure again tomorrow morning). The question is now what? Now, I'm not using Bodyopus to get into shape for a contest so I'm not under any major time constraint here. Also, I'm hesitant to use thyroid medications. So, some time off from dieting is in order to allow T3 to upregulate and then I can begin dieting again. The question is what to do to allow for upregulation without gaining back much fat.

So far, I plan to:

1. Discontinue ephedrine. I began tapering today taking two doses of 25 mg ephedrine, 200 mg caffeine, an aspirin and 1 gram of L-tyrosine. Tomorrow, I'll drop to one dose and then I'll stop for at least two weeks.
2. Increase calorie level. Not sure how much here. I suppose if I continue with Bodyopus, it's not as critical but low carb diets do lower thyroid somewhat so adding some carbs back into my diet might be helpful. But, the lowered thyroid will lower insulin sensitivity allowing for more fat storage. Dan's isometric diet might be the best choice at maintenance calories and using chromium, magnesium, and vanadyl to keep insulin sensitivity up. Wish I had some glucophage right now.
3. Activity. Not sure on this one. On the one hand, too much aerobics will definitely lower T3. But, cutting my activity too much may allow for fat gain. I've been discussing this with someone else in private email and he thinks that there may be some critical intensity/duration threshold that will give you upregulation of T3 without burning too much muscle.
4. I seem to recall Dan mentioning yohimbe to treat low body temp but do I really want to be seen buying Twinlab Dick Fuel at GNC? And, seeing as I don't have a girlfriend right now, do I want raging hard-ons all day? Any ladies out there into modem email sex? Nah,

never mind. I just can't see the appeal of my typing "I'm licking your butt" for some reason.

Well, Dan suggests just adding some yohimbine to my stack (8mg 3X/day) to raise NE levels and hopefully body temp so I figure I'll try this before I try any of the other options above.

Oh, you may find this interesting. I was called in to have a little talk with the director of the wellness center where I train (it's in a hospital). Usually, that is a bad thing. This week, one of my clients who's had all kinds of trouble losing weight told me that she was going to try Atkins as her sister's and mother found it to work for them. This led to a discussion of low-carb diets and Bodyopus in particular. Well, apparently, some *!\$?# (4 letters, starts with 'c') RD at the hospital overheard me and wrote a complaint about it demanding to know what the center's stance on percent calories from pro,carb and fat was, blah, blah, blah. Thankfully, the director knows me well enough to realise I wouldn't tell anyone something deliberately dangerous. He is going to back me up and tell her how unprofessional she was acting by not addressing my personally and ask the dietetics department for their position stand on exercise (the implication being that if I'm not to discuss diet, they shouldn't be discussing exercise). He is so cool but I'll have to keep my voice down from now on. I would almost never suggest a Bodyopus diet to a client (which crosses the line of what personal trainers legally can and cannot say about eating. Basically, I'm allowed to say things like "Well, I've seen studies showing that chromium picolinate improves insulin sensitivity." But, as soon as I say "I want you to take chromium picolinate, I'm prescribing a diet and I'm in trouble." Yes, this is fucked but that's life.). But, if asked, I will tell someone what I feel is the 'truth' about those types of diets. And, considering that I've been on one myself, I feel more qualified to do this than some fucking RD who has only read a bunch of biased shit (like two recent articles condemning lowered carbs in the prestigious University California Berkeley Wellness Newsletter and another called Environmental Nutrition) and is blowing smoke out of her ass. Just to be safe, I went down to the biomed library and dug up a bunch of research into ketogenic diets in case I have to defend myself to this stupid bitch. And, please don't take my comments as misogynistic or anything like that. Had it been a male RD, I would be calling him a stupid dickhead. I'm an equal opportunity hater.

Anyway, this kind of has me pissed off today which takes a lot of doing (i.e. to get me pissed off).

As I was much pissed off, I went down to the biomed to look up some of the research on ketogenic diets in case I have to defend myself to this RD. While there, I came across a couple of interesting studies but one stands out that I'm not sure what to make of. The researcher in question basically wondered why low calorie dieting leads to ketone body (KB) formation when it would be more beneficial for the fatty acids

to be completely oxidised yielding more energy. He has found that supplementation of pantothenic acid (B-5) prevents the formation of KB's as the fatty acid undergo complete oxidation and yield more energy per gram leading to less hunger and weakness. What I can't decide is if this is a good thing on Bodyopus. I mean, yes, complete oxidation of fatty acids would be useful but don't we want KB's to form to prevent muscle catabolism and all that good shit. Any of you biochem guys out there have an answer before I add B-5 to my stack.

Ref: Leung, L.H. "Pantothenic acid as a weight-reducing agent: fasting without hunger, weakness, and ketosis." Medical Hypotheses 44(5): 403-5, 1995 May.

Friday: Ok, normal morning, decided to measure body-comp again so I can check for spillover on Monday. While it looked like I wasn't progressing, skinfolds show a different story. Which shows you how inaccurate looking in the mirror can be.

The 3 site came out to:

Date:	Friday 5-24-96
Pec (mm)	5 (down from 6)
Abs (mm)	24 (down from 27)
Thigh (mm)	8 (no change from 8)
Supra iliac (mm)*	19 (up from 18?)
Total of 3 (mm)	37
Bodyweight:	144 (down from 144 last Friday)
BF%:	10.4% (down from 12.2%)
Fat mass:	15 lbs. (down from 17.7)
Fat free mass:	129 (no change from 129)

Supra-iliac was not used for determination of bodyfat but only for comparison purposes.

This makes me question my statement last time about hydration not supposedly affecting bodyfat numbers. We'll see what happens after the carb-up on Monday as far as total lbs. of fat is concerned.

Notes: Oh, for you scatologists out there (and, if you don't know what the word means, I'm not going to tell you as you really don't want to know), I had a real bowel movement this morning. It wasn't a bunch of little pellets. It wasn't off colour. Just a regular, normal sized, brown turd. Aren't you glad I shared this tidbit with you?

Well, although non-deliberately, I began carbing without doing the depletion workout. I had planned to do it but was simply exhausted from a hellish week at work. So, I just started without. We'll see if this backs my hunch that the muscles are already good and depleted glycogen wise and that the depletion workout isn't really critical as far as results are concerned on Monday when I redo body comp. If I get

shitloads of fat spillover and have a crappy workout, I'll know that all the carbs weren't going into the muscles.

Saturday: Pretty much ate all day. Thing is, I got really sick to my stomach and ended up not hungry later on. I have no idea how many calories I ate today. Again, we'll see what happens on Monday.

Sunday: Going for a long bike ride today with some friends. While this may screw up tomorrow's workout, it won't matter as I can't lift anyway since it's Memorial day and the gym's are closed. This ride (about 30 miles) should get me back into ketosis very quickly. Started adding Twinlab Yohimbe Fuel to my diet at a dosage of 1 capsule (8mg) three times per day. Will see what happens to body temp with this addition. Finished carbing at 6pm and took my normal 50mg of VS before bed to start driving blood glucose down.

Some other notes about this week: If anyone out there wants the most comprehensive look at thermogenesis and thermogenic agents (natural, synthetic, pharmacological), I suggest you pick up "Fat Management: The Thermogenic Factor" by Daniel Mowrey from Victory Press. I came across it at the Health Food Store. Over 1400 references and looks (in mind numbing detail) at all aspects of thermogenesis, Brown Adipose Tissue (BAT) stimulation, defects in thermogenesis which may lead to obesity, etc. A total bargain at \$9.95. Although it's a bit redundant and could be summed up in about 10 pages, here's the gist:

1. ECA has been found to stimulate thermogenesis through various means including stimulation of BAT. No duh.
2. The best dosing schedule is to take 2-3 doses for 5 days and then take weekends off to allow the adrenals to recover. He suggests that the very obese may need to take ECA for some time to allow BAT to grow to the point where it can work optimally. This may explain why some individuals who I know that used ECA got no results after 3-4 weeks: they didn't take it long enough to allow BAT levels to get high enough to have an effect.
3. Adrenal support (primarily herbs) should be taken to avoid adrenal exhaustion. I may have to look into this.
4. ECA should be taken 30 minute before meals to have an impact on stored bodyfat or with meals to have an impact of dietary fat. An important distinction. Taking ECA with meals may lessen side effects though.
5. White willow bark is not an acceptable substitute for aspirin in the stack although MaHuang and herbal caffeine sources are good substitutes for ephedrine and caffeine.

Like I said, the book gets into applied pharmacology of all these compounds in amazing detail. It also looks at the potential to use cold to stimulate BAT growth. Pick it up if you can find a copy.

Still other notes: Dan pointed out to me in email that the Sliguide caliper has the same overall tension as the Lange (although the spring is twice as strong, the caliper tips are twice as big so that total tension/area is the same). Still, in repeated measurements of different subjects, I've always found the Slimguide (at least mine that is) to yield slightly smaller measurements than the Lange on the order of 2-2.5 mm per measurement. Again, it doesn't ultimately matter as long as you apply them consistently. That is, as long as I figure a 2mm difference, I can get comparative values from week to week, just not accurate values on the lookup charts (which, trust me, are total crap anyway for most of us). Go by changes in skinfold measurements, not by changes in bodyfat % by the charts. If the numbers are going down, you're losing fat.

Time for the Monday morning body comop. I sure felt bloated this weekend but we'll see how much of that was water. Here's how it worked out:

Date:	5-20-96	5-27-96	Change
Pec (mm)	6	5	-1mm
Abs (mm)	27	24	-3mm
Thigh (mm)	9	8.5	-.5mm
Supra iliac (mm)*	17.5	18	+.5mm
Total of 3 (mm)	42	37.5	-4.5 mm
Bodyweight:	151	154	+3 lbs.
BF%:	12.2%	10.4%	-1.8%
Fat mass:	18.4	16	-2.4 lbs.
Fat free mass:	132.6	138	+5.4 lbs.

Ok, observations: Pounds of fat came up .5 lbs. from Friday, not surprising considering the amount of food I ate this weekend. Even though bloated to the point of bursting, I could not quit eating. Still, percent bodyfat and total pounds of bodyfat decreased yet again which is strange since subjectively I felt that I had plateaued. Morning body temp was still a bit low but I'm not sure how long it takes for the yohimbine to kick in. Since Dan didn't mention making changes to my diet or activity level via email, I'm going to forge ahead and try to get below 10% bodyfat for the first time in my life. And, don't take the increase in FFM as an increase in muscle. Number one, I'm holding water like you wouldn't believe. This also reflects undigested food which, I've been told, can comprise up to 7 (!) lbs. of your total bodyweight at any given time. That plus glycogen is why my FFM is up 5 lbs. from last Monday. Off to the gym (they did turn out to be open this morning) to see how my lifts faired.

Ok, back from the workout and it was a killer. Since I'm about to start my speed skating season, I dropped squats back to maintenance so it's hard to say if there was progress there. Seeing as almost every

activity I do outside of lifting works the quads anyway, I'm always in a state of localised overtraining for them anyhow.

Went from sets of 8 on chins with 16 lbs. help (on the Cybex assisted Dip/Chin machine) to one set of 7 full reps with bodyweight. The last rep was a near isometric and I held it for 6" at three positions on the final negative. I consider this major progress in this exercise. I haven't been able to do decent bodyweight chins (underhand narrow grip) since high school (when I used to be able to do 3 sets of 10 doing one set narrow undergrip, one set narrow overgrip, and one set wide grip behind the neck. Although it's quite cliché, if I only knew than what I know now about training maybe I wouldn't have been a fat little unmuscular weenie in high school. Now I'm just a lean unmuscular weenie.) Anyhow, I also went from dips with 25 lbs. hanging for 8 reps to dips with 30 lbs. hanging for 7 reps. Again, considering the jump in poundage (and bodyweight is up from last week as well), I would have expected a greater drop in reps than this so I can only conclude that I didn't lose any muscle and that missing the Friday depletion workout didn't make a bit of difference. Which is fine with me since it's so damn boring anyhow. I'll be skipping it from here on out. I did a couple of other exercises (cable row, incline bench) but, as this was the first week doing them, I have no numbers to compare. We'll see what happens next Monday on those exercises as well.

Happy Bodyopusizing,
Lyle McDonald, blah, blah, blah

Subject : My bodyopus experience.week5

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Date: 1996/06/03

Before I get into the week 5 update, it's time for some more prelude comments. I've been thinking a bit about the overall Bodyopus scheme as laid out by Dan the Man. I, and others, have to a great degree taken Dan on faith in terms of many things regarding the overall diet. But, now I'm starting to question a couple of those things. For example, Dan said (in a past Ask the Guru column) that Bodyopus dieters should only show ketones in the morning and that ketones in the evening indicate too many calories or insufficient activity. But, back in week 2, I found that a day of almost complete fasting (not by choice) led to extremely high ketone levels that evening. A friend who is also on BO has found the same thing. Ok, this is minor complaint at best but my main question is about the workout schedule.

Here are some puzzle pieces that I've been trying to put together in my own mind.

1. At least for myself, skipping the Friday depletion workout made no difference in terms of fat spillover or workout quality during week 4. I had mentioned back in week 1 or 2 that I doubted there could be much glycogen left anyhow and that I was unconvinced that this workout was critical. Which seemed to be the case at least for me. Now, let me say that, for the pre-contest bodybuilder, this workout might definitely be critical in terms of looking their best at contest time. But, I'm not getting ready for a contest so I see it as an unnecessary waste of time for me.

2. Jeff Krabbe (who has been following the Anabolic Diet) for over a year follows his own type of workout plan and he is currently at 4.5% bodyfat and gaining muscle. He also has a friend that trains during the recarb which again goes against what Dan suggests in terms of achieving maximal carb-up. Again, not training on weekends makes perfect sense if you're trying to get maximal glycogen loading.

3. A buddy of mine made the comment that, in terms of burning calories/ glycogen, the high rep depletion workout burned way more than a typical high tension session (this was part of a different discussion which is not important here). This may seem out of place but I'll get back to it in a second.

4. TC has written (in MM2000) that most of the protein synthesis occurs from hour 1 to hour 30 following a workout. That is, this is the time when you need anabolic hormones like test, GH, insulin to move nutrients into the muscle cells.

So what am I getting at?

Dan suggests the following schedule to optimise results from Bodyopus:

Mon: high tension workout for half of the body

Tuesday: high tension workout for other half of the body

The purpose of these two workouts is to instill an anabolic response to prevent muscle loss while dieting. I'll come back to this.

Wed/Thu: aerobics optional to burn ketone calories

Fri: high rep, 2 hour depletion workout.

The purpose of this workout is to deplete muscle glycogen so that total supercompensation can occur.

What I'm thinking is this: What if you switched around the workout schedule to something like this:

Mon: either full body 2 hour depletion workout or split body into Mon and Tue.

Tue: aerobics or other half of body depletion workout. Perhaps followed by interval training (which, as I mentioned in the Week 4 update) would serve to clear out what little glycogen (especially liver glycogen) might be left

and help you get into ketosis faster.

Wed: aerobics

Thu or Thu/Fri: do high tension workout (either full body on Friday or split routine on Thu and Fri).

Sat/Sun: no training

Alternately, you could just ditch the damn depletion workout and train normally on some type of split routine. I'd put any weak bodyparts on Monday and Tuesday to take advantage of whatever strength increases you get from the carb loading. Or perhaps use a split like:

Mon: legs, back, bis: 1-2 exercises per bodypart or POF or something

Tue: chest, delts, tris: 1-2 exercises per bodypart or POF or something

Fri: whole body: 1 exercise per bodypart for 2-3 sets to failure.

This would do double duty. You can take advantage of the carbo loading on Mon and Tue and then get all muscles trained on Friday before the carb up to take advantage of the anabolic rush. In fact, that's what I'm going to do this week.

Here's the rationale: BO is meant to be a fat loss diet and you don't get into major fat burning until you hit ketosis. Which can't occur until you drop blood glucose below 50 and empty out liver glycogen (muscle glycogen doesn't really matter as far as ketosis is concerned). Doing the depletion workout first in the week would presumably drop glycogen and blood glucose levels faster than a normal high tension workout. Interval training would accomplish the same thing. But, Dan says that high intensity aerobics burn muscle. What about sprinters? Or Shawn Phillips for that matter (see MM2000 article by Shawn on High Intensity Interval Training for fat loss several months back). Yes, long duration, high intensity activity will probably cause a loss of muscle but intervals don't *seem* to cause that at least not done in any reasonable amount. Would three days of interval training while in ketosis hasten fat loss? Maybe, but it would suck big time wind to do.

Also, doing the high tension workouts on Thu/Fri or whole body on Friday means that, in the first 30 hours post workout, you would be able to take advantage of the insulin and GH pulse that you get while recarb.

Possible drawbacks to the Lyle method:

1. Can't take advantage of the super-glycogenated muscles on Mon and Tue which (supposedly) make you stronger. Personally, I haven't noticed a monster difference as it is. A buddy of mine did feel extremely strong following recarb this last week but we can't be sure if was because:
 - a. the carbing worked really well for him.
 - b. he loaded creatine that weekend during recarb.
 - c. he took more ephedrine than usual.

I put my money on 'b' and 'c'.

2. Soreness from high tension workout may impair carb-ing. But, question: why wouldn't this apply to normal training. I mean, on a high carb diet, there's no problem getting carbs into the muscles.

Here's what I think the problem is: I think that Dan designed BO for the competitive bodybuilder who's getting ready for a contest. In this case, doing the high rep depletion workout prior to re-carbing makes perfect sense. That allows all carbs to go to refilling the muscles without being drawn away for repairing the damaged muscle fibers. But, what about those of us simply using BO to lose fat and maintain or even gain a bit of muscle at the same time? In this case, using the depletion workout to get into ketosis more quickly *should* allow you to get into fat burning more quickly. And, since getting every last drop of carbs into the muscle isn't as critical (since we're not preparing for a contest), doing your high tension workout immediately prior to the re-carb might create more of an anabolic response than doing it when carbs are lower (which also allows cortisol to be higher as carbs lower cortisol levels) early in the week.

A lot of this came out of the differences between Pasquale's Anabolic Diet (AD) and Dan's Bodyopus (BO) which I'll be summarising and getting into in the prelude to the week 6 update. The AD seems geared towards gaining mass with minimal fat gain which is why calories are not restricted. For that goal, training more 'normally' might be more beneficial. BO seems geared towards maximising fat loss while minimising muscle loss which is why it's set up the way it is (calories at maintenance or below).

Anyone out there have any comments on this idea? Dan?

Lyle McDonald, CSCS

Just to let you know that these shouldn't be as damn long as before. At this point, most of the things I'm doing are the same and I see little need to keep repeating my diet, or my supplement schedule. If anyone missed these from earlier updates, send me mail and I'll bring you up to date. If I try anything radically different, I'll point it out, otherwise there's no point in repeating the same stuff over and over again. And I apologize again for the formatting on the body composition measures. There seems to be a problem between my text editor and my terminal program when I paste these updates onto m.f.w.

Ok, it's week five and here's the score starting out.

Body-composition measurement:

Date:	5-20-96	5-27-96	Change
Pec (mm)	6	5	-1mm
Abs (mm)	27	24	-3mm

Thigh (mm)	9	8.5	-.5mm
Supra iliac (mm)*	17.5	18	+.5mm
Total of 3 (mm)	42	37.5	-4.5 mm
Bodyweight:	151	154	+3 lbs.
BF%:	12.2%	10.4%	-1.8%
Fat mass:	18.4	16	-2.4 lbs.
Fat free mass:	132.6	138	+5.4 lbs.

Assuming I can keep up a decent rate of fat loss, I figure 3 more weeks to 7% bodyfat (my goal). That would require a fat loss of 6 lbs. which, assuming no LBM loss, would be 10 lbs. of fat / 148 total weight = 6.75% bodyfat. Whoo-hoo! as Homer Simpson would say.

My week at a glance:

 Sunday: As I stated in the week 4 update, I went for a 30 mile bike ride on Sunday with some friends. Finished the junk food carb at 6pm bloated as all hell and took 50 mg of VS before bedtime.

Monday: Took squats back to maintenance but upper body lifts (dips and chins) both went up so I take this as a maintenance of muscle mass. This is the week I go below 10% bodyfat for the first time in my life. I'm psyched. I can taste cut abs at this point and there's no way in hell I'm going to stop now. Thyroid levels be damned!!

Diet: Going to try increasing my calories a bit this week and see what happens. I've been about 1700 per day but am going to try to move up to 2000 per day (not easy since I hate the food choices).

Supplements: took 50 mg Vanadyl with 200 mcg chromium and 250 mg magnesium with my first and last shake in addition to my normal vitamins (one a day, extra A, C, and E, and calcium). Also took ECA three times. My dosages were:

1. 50 mg ephedrine
2. 200 mg caffeine
3. 160 mg aspirin (1/2). I found low dosage adult aspirin (81 mg) at the grocery and will be using that from now on.
4. 1 gram of L-tyrosine (which is a noradrenaline precursor and adds a bit more kick)
5. 8 mg Twinlab Yohimbine fuel (upregulates NE release from nerve terminals and raises body temp which I need. Also does a number on A2 receptors but this is more of a concern for women's lower body fat. However, I won't be surprised if research determines that male abdominal fat has similar receptor concentrations).

I was vibrating at Monday's workout after this. Almost too amped up but my workout was great. My whole back is sore today from just

one set of chins and one set of rows. Maybe those HIT guys have something right. ;) Unfortunately, I took my third dose too late in the day and got no sleep. I think the yohimbine and tyrosine kept the ECA in my system too long and I'm dropping back to two doses per day for the rest of this week.

Tuesday: My weight dropped 5 lbs. since yesterday (154 to 149). This is a big drop for one day which shows you just how much water I was retaining from my junk food carb-up.

Diet: same as Monday. BTW, thanks to my Bodyopus gourmand Bob Koss for the following low-carb snack:

1/2 container heavy cream

1.5 scoop whey protein

1 packet Equal

Mix into pudding (add more whey for a thicker consistency).

Almost like eating carbs.

Supplements: same as Monday but no vanadyl, mag, or chromium before bed as I'm already in ketosis.

Notes: Due to my work schedule, I was not able to lift this morning.

Since it was only delts and arms and more of a supplementary workout anyhow, it's no big deal. Also, I'm considering testing my hypothesis that a heavy training session prior to the recarb would be a better way to promote muscle growth than the depletion workout. In an attempt to speed my descent into ketosis (not there this evening), I hit 10 sixty second intervals with sixty second rest on the Stairmaster followed by 20 minutes of easy spinning on the bike. I definitely felt 'bonked' (which is a sign of not only low blood glucose but also depleted liver glycogen which is the key to getting into ketosis. If you've got liver glycogen stored, it will dump glucose into the bloodstream and keep you out of ketosis. This is the genesis of Dan's no fructose or sucrose on weekends (both reglycogenate the liver) rule.) after that workout and am sure I'll show ketones by tomorrow morning.

Actually, I checked for ketones when I got home and I'm showing trace so this definitely did the job. Now, I wonder if I could get into ketosis in one day by lifting in the morning and doing intervals in the evening on Monday. Hmmm. Perhaps next week if my schedule allows.

Wednesday: Well, I'm full into ketosis and getting the appetite suppressant effects of ketones (FYI, one of the early criticisms of the Atkin's diet was that it blunted hunger. Yeah, Grog forbid that you not be hungry while dieting. This shows you how desperate mainstream nutrition 'experts' were to discredit this diet. They simply couldn't come up with anything better. And you wonder why I dislike most RD's. Please note that I said 'most'. Many RD's are progressive enough to accept that maybe, just maybe, high carb/low fat doesn't work for everyone. It's only the close minded idiots who decide that something doesn't work without even rationally considering it who chafe my ass.) I'm trying to keep my calories up but, between the ketones suppressing my hunger and my general dislike

of the food, it's difficult to do. I understand now why Dan said Rebound Dieting failed: not that it was a bad diet, people just couldn't eat enough to get the best results. For muscle growth, Dan (and Pasquale) suggests 20% over maintenance calories. I couldn't eat that much protein and grease if I tried to. If I could get a Designer/Flax IV drip going maybe.

I ended up walking a total of about 45 minutes with my clients at work so I opted not to do any more cardio. That and I'm tired and lazy today.

Ok, I lied. Owing to my pathological desire to have cut abs, I went to the gym again tonight and did 45' of easy cardio on the recumbent bike. What can I say, I'm a cardio addict.

Thursday: Another good BO snack comes to mind. A food I eat a lot (and actually enjoy) is string cheese which is cylindrical strips of mozzarella cheese. Thing is, cold they are a bit chewy and gross. If you microwave them for 30-40 seconds, they melt just enough to be delicious. Kind of like pizza topping just without the crust. I bet dipped into a bit of tomato sauce they'd be even better but watch those carbs.

Friday: Ok, time for the pre-binge body composition measurement.

Date:	Friday 5-31-96
Pec (mm)	5 (no change from 5)
Abs (mm)	24.5 (no change 24)
Thigh (mm)	8 (no change 8)
Supra iliac (mm)*	17 (down 2 from 19)
Total of 3 (mm)	37
Bodyweight:	146 (up 2 lbs. from last Friday)
BF%:	10.4%
Fat mass:	15.1 lbs. (up .1 lbs. from 15)
Fat free mass:	130.9

Supra-iliac was not used for determination of bodyfat but only for comparison purposes.

Ok, this is bad. It appears that I have lost zero lbs. of bodyfat this week but I don't know why. Everything was pretty much the same as last week as far as I can tell. If anything, I've been in ketosis for longer this week than last. Some possible reasons:

1. I got too much spillover last weekend with my 48 hour eat until your stomach hurts binge. This week I will be cutting down the length of my carb-up to no more than 36 hours (suggested by Jeff Krabbe in private email). That should limit the damage I can do bodyfat wise.
2. Yohimbine: This was the only real change I made supplement wise but, if anything, it *should* be helping with fat loss due to it's effect on α_2 receptors and adrenaline release.
3. I mentioned last week that my morning body-temp had dropped.

This is where I put my money. If this is the case, I can either:

- a. drop calories further which isn't necessary as I don't have any pressing contest to get ready for.
- b. back off for a couple of weeks, increase calories, discontinue the ECA stack and cut back on cardio and try to get thyroid levels upregulated like I said I was going to do last week. This is my plan for at least week 6. I'm also going to try weight training an extra day or two as discussed up above). Perhaps added calories plus some extra training can add a lb. or two of muscle in the next two weeks which should help raise metabolic rate.

Notes: Ok, decided to test three hypotheses this weekend (which, unfortunately, makes it difficult to know what's doing what):

1. Shorten the carb load: Seeing as I have a major tendency to overdo it calorie wise during the recarb, I figure I can perform damage control by just shortening the load. This will also give me an additional day in ketosis which might also hasten fat loss. Ok, so I won't get full carbing of the muscles. As I'm going to discuss further in the next week update, I'm not convinced that it's necessary for the non-pre-contest bodybuilder anyhow. I started carbing at about 7:15 pm after my workout (and 30 minutes after taking 30 mg vanadyl, 750 mg HCA (see below), 200 mcg chromium, and 250 mg magnesium). I will continue to stuff my face until 7pm tomorrow night. Then it's a long bike ride Sunday morning to get back into ketosis as fast as I can. For the record, today's workout went as well as Monday's typically does. In fact, I had more endurance as far as getting the same reps for a given weight with shorter rest periods. This makes me severely question the idea that glycogen compensated muscles are stronger but we shall see what happens on Monday.

2. Hydroxycitric acid (HCA): This is the 'miracle' diet supplement that inactivates the enzyme that converts glucose to fat (citrate lyase for you biochem trivia buffs). Jeff Krabbe has written that he found his appetite severely blunted using HCA during recarb. Also, it's been shown to help replenish glycogen stores over fat stores. I could use some appetite blunting (I already have put away an Ultra Fuel/Designer shake, a Phosphagain bar and 6 chocolate donuts and I've only been carbing for one hour if that gives you any idea of the type of gluttony I'm into on weekends. But, that is why I like this diet set up. With other schemes, I can't make a pig out of myself like this. This approach almost requires that you eat until you burst on weekends. Yes, I could make better food choices but why do so if I don't have to. I'm sure I would get better glycogen reloading with Dan's exact suggestions but it's a pain and I won't do it constantly. My new catch phrase of "Good advice not taken is still bad advice" stolen from Bodyopus applies. I'm not trying to get contest ready so taking an extra week or two to get to my goals is worth

being able to eat what I want for 24 hours).

3. Trained heavy before carb-up: This was the crux of my discussion above. I think part of my low body temp problem is my overall lack of muscle. I theorise that training heavy before re-carb may get a better anabolic effect so this might allow me to gain some muscle mass and get my thyroid back on line (on that note, anyone out there know of any non-pharmaceutical ways or supplements to get T3 levels back up except for cut calories, drop ECA, and stop aerobics?). Additionally, I'm going to lift heavy three days (maybe 5 and try the Ironman Fat to Muscle workout or something) next week and cut back on cardio and see what happens. Gotta go eat my Poptarts now (chocolate of course).

Saturday: Started my day with a box (!) of Lucky Charms (it was a small box) and then went into a sugar induced, serotonin coma afterwards and slept for 3 more hours. Actually had real food for lunch (tuna with fat free ranch dressing and added Flax). Went skating for about an hour and a half and then ate some more carbs. I finally stopped carbing at midnight since I was up. I know I said I planned to only carb 24 hours but couldn't quite stop. Had I gone to bed at 9pm, I would have stopped earlier but midnight seemed a good place to stop.

Notes: the HCA definitely made me feel full quickly. I think I ate much, much less than last weekend. It will be interesting to see what effects this has in terms of spillover and my Monday workout. Also, I wonder if an extra day in ketosis might hasten fat loss (in other private email someone told me that they follow a low carb diet with 4-7 days of carbs every 4-6 weeks with good results.) I think this is workable except that:

1. a heavily muscled individual might lose muscle staying this long in ketosis.
2. I'd be afraid of re-adapting to carbohydrate metabolism with this long on carbs (interesting side note on this: Jeff Krabbe says he's been on the AD so long he cannot revert back to glucose metabolism but Pasquale says this happens if you stay on this diet long enough).

Sunday: One major observation, I am not bloated like last week. I mean, last week I could see the water under my skin and felt truly shitty. This week I feel lean and full and my muscles are a bit tight from the lift on Friday. This was probably due to both shortening the carb load as well as using the HCA. Yes, I may have compromised muscle super-glycogenation but it's a small price to pay to be able to eat whatever junk food I want to not be bloated to all hell. It's raining so I can't go riding this morning which sucks. I'm going to try to get into the gym this afternoon to do some mild cardio to start driving blood glucose down and emptying liver glycogen to see if an extra day in ketosis makes any difference. Or maybe I won't and I can just be lazy. Big surprise, I went ahead and hit 45' of aerobics at the gym

to hasten ketosis. HR was at 140 (about 73% of maximum). Dropped 50 mg VS before bedtime as usual. I hope to be in ketosis by the end of tomorrow or early Tuesday at the latest which will give me 4 full days burning ketones.

Some other notes about this week: Picked up the new Ironman this week. It sucked. Picked up the new PLUSA. It was a typical issue. Is it just me or are all the mags except for Peak Training Journal getting really bad? And if so, why don't I quit buying the stupid things? Maybe I should get a subscription to Milo (I already have one to Hardgainer but it gets really redundant after about 3 articles). I looked at this month's Flex which is amusing but there wasn't anything terribly interesting (except for a Q&A on steroids with Jerry Brainum and some others) in it to justify the cost. Even the half naked chick bodybuilder didn't do anything for me (even with the added yohimbine).

Still other notes:

Time for the Monday morning body comp.

Date:	5-27-96	6-3-96	Change
Pec (mm)	5	5	+0 mm
Abs (mm)	24	25.5	+1.5 mm
Thigh (mm)	8.5	8	-.5 mm
Supra iliac (mm)*	18	15.5	-2.5mm
Total of 3 (mm)	37.5	38.5	+1.5mm
Bodyweight:	154	149	-5lbs
BF%:	10.4%	10.4%	+0%
Fat mass:	16	15.5	-.5lbs
Fat free mass:	138	133.5	-4.5lbs

*Supra-iliac was not used for bodyfat estimation but only for comparison purposes.

Ok, observations on the week at large: Well, there appears to be a small fat loss since last Monday but it's within the range of error for the callipers. This again suggests to me that there has been some type of thyroid shutdown from the heavy dieting and use of thermogenic agents. Therefore, I'm going to attempt to maintain that bodyfat level for the next 2 weeks and gradually increase calories to about 2000 per day, discontinue ECA, reduce cardio volume and concentrate on lifting to see if I can get back on track. Dan has written that, for a 10 week diet, the best course of action is to diet for 4 weeks, go back to maintenance for 2 weeks and then finish dieting for the last 4. Looks like I have no choice but to do just that. And, seeing as morning temp was a pitifully low 96.4 (!), that's the plan. I'm also hoping that spending an extra day in ketosis will help avoid any fat gain while I increase calories and try to reset my thyroid.

Next week: The differences and similarities between Bodyopus and the Anabolic Diet.

Happy Bodyopusizing,
Lyle McDonald

Subject : My Bodyopus Experience.week6 (it's long, guys)

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Date: 1996/06/10

Ok, as promised I want to discuss some of the differences and similarities between Bodyopus (hereafter BO) and the Anabolic Diet (hereafter AD) as I've gotten some questions about them and have read both books (as well as Atkin's "New Diet Revolution" and Jay Robb's "Fat Burning Diet") and feel I can give a decent critique of the two diets. I've also looked up some of the research into ketogenic diets but I don't want to get into that too much here. Read Jeff Krabbe's posts if you want the nuts and bolts of why these diets do what they do. Remember that all opinions are mine and mine alone. And, I don't mean to harsh on anyone with what I write, just trying to give an honest, mostly unbiased review. This week (to cut down on overall post length), I'll only discuss the books in general terms (overall quality, content). Next week, I'll get into differences between the actual diets. That way you guys have to come back and read my wonderful writing. Sort of like the cliff-hangers in the old serial TV shows.

Overall book quality and cost:

BO: \$39.95+6.50 S/H from XIPE press. A 300+ page perfect bound book. 48 chapters but some of them are only 2 pages long. I feel that the 50 pages on diet drugs was mere filler as most of us won't ever use/have access to most of these compounds. No references included for geeks like me who like to look up supporting research. This book actually details 3 different diets (Modern dieting, the Isometric Diet, and Bodyopus). It goes into great detail about food quality with regards to protein, carbs, and fats. Information dense without being overly technical (although those without a science background may have some problems with the chapters on thyroid and women's lower body fat). Still leaves a lot of questions unanswered (either because Dan forgot or simply doesn't have them yet) with regards to supplement doses (vanadyl, chromium, etc.), protein during the recarb (he told me

20g per meal in private email but I think that's overkill), and some other things. All of which are minor nit-picks in the big scheme of things. This book covers almost all of the bases as far as dieting for the non-steroid individual. Definitely better than 99% of the shit diets out there (I giggle every time I see Dr. Katahn's "Tri-Color Diet" book in the stores. Or Susan Powter's "Food".)

AD: \$49 + 4 S/H from Optimum Training Systems. Spiral bound and comes with a video (poor quality of Pasquale essentially repeating exactly what's in the book. Yawn.) and one site bodyfat callipers (better than nothing and I used them myself but spend the extra \$5 and get a pair of Slimguide). Much less detail in some ways than BO (with regards to food quality choices as well as training structure and helpful supplements). But, covers some of the aspects that Dan skips like underlying physiology. Which is interesting but hardly necessary to use the diet by any means. Has lots of references but some are simply inapplicable (like research on the effects of a moderate fat (40% calories) diet on endurance athletes). Better graphic design overall. But, this is damning by faint praise as BO (the book, not the diet) has no graphics to speak of.

Both books have things going for them and things going against them. I would have loved to have seen Bodyopus with comprehensive references but the list would most likely be longer than the book itself. Pasquale missed some of the details (like glucose disposal agents) which really help the diet along. A true geek like myself has both. And looks up the references in the library too. I'm not sure which one I would recommend if you only had enough \$\$\$ to buy one or the other. Seeing as BO actually has more information as far as overall dieting, I guess this would be the one I'd recommend. Also, BO has a cooler cover picture. Which is absolutely critical to my buying preferences. Yeah, whatever.

Lyle McDonald, CSCS

 Someone on m.f.w suggested I try a different format for my body composition measurements to avoid so much confusion as to what the changes have been. So, I've made two charts (one for the repeat Monday measurements and one for the Friday lower down). Let me know if this has too much information or could be better presented. I can only imagine how this will format to m.f.w.

Day	Date	Weight	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	5/13	154	7	27	18	8	42	12.2%	18.8	135.2
Mon	5/20	151	6	27	17.5	9	42	12.2%	18.4	132.6
Mon	5/27	154	5	24	18	8.5	37.5	10.4%	16	138
Mon	6/3	149	5	25.5	15.5	8	38.5	10.4%	15.5	133.5

Note: These numbers are starting at week 2 as I was using the single site measure during week 1.

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

Not much change this week but that was to be expected. I was not cutting calories or doing much in the way of aerobics. Reasons are given below.

My week at a glance:

Sunday: Recall that I stopped my carb-up short at 12pm Saturday night to minimise any spillover from overeating. Hence, this day was protein and grease again. I did 45' of cardio at a HR of 140 to hasten depletion of liver glycogen and ketosis. Took same supplements as always but NO ECA or Yohimbine. The plan for this week is as follows:

1. Increase calories: at worst, I maintain fat (I'm not sure it's even really conceivable to gain fat on a ketogenic diet as excess calories will just be excreted anyhow) mass.

At best, my T3 levels come back up and I can continue dieting down after 1-2 weeks.

2. Increased lifting frequency: After much debate, I decided on the following scheme:

Mon: legs, back, bis: high tension workout, followed by 20' cardio

Tue: chest, delts, tris: high tension workout followed by 20' cardio

Wed,Thu: 30' low intensity cardio?

Fri: high tension full body workout

Again, the rationale as discussed last week is to take advantage of any carb-ing from the weekend on Mon and Tue and then hit the muscles hard again on Friday to take advantage of the anabolic spurt on the weekend during recarb.

3. Decreased cardio volume/intensity: Recall that I was doing 45-60' of moderately intense cardio on Wed and Thu in previous weeks.

As too much cardio causes muscle loss and lowering of T3, cutting back may help allow thyroid levels to reset.

4. No thermogenics: Same reason as #3. Thermogenics (clenbuterol and to a lesser degree ECA do a number on the enzyme that converts inactive T4 to active T3) so discontinuation of the stack may help allow upregulation.

Monday: Ok, hit my first tension workout of the week. Recall that I've been without carbs for 2 days now. Not surprisingly, this workout

felt like a typical Tuesday workout in that strength started well and then dropped off quickly. However, I can't say this with all certainty as other things were changed from last week's Monday workout including:

1. No ECA: for anyone who's gone cold turkey, this makes a huge difference in poundage's and reps.
2. Lifting in a different gym: Due to schedule I trained where I work other than at World Gym where I normally workout. I was also forced to train at a different time than normally (mid-day instead of morning). For anyone who doubts the effect these have on workout quality, I suggest you try training in a completely different gym once and watch your poundage's fall off. Or, if you always train in the morning, go at night and watch your strength drop to weenie proportions.
3. Tired: I stayed up past my bedtime helping a friend put together a newspaper. The fact that I'm trying to date this girl had nothing to do with it. No, really, I mean it. Neither did the back rub I gave her. What?! You guys doubt me?

Diet: I noticed a big difference in appetite not being on the ECA stack. I actually ate like a normal person. Guessing that I put down 2000-2200 calories or so. But, I'm in ketosis as of early evening so I'm not concerned with anything being stored. So far, 48 hours to get into ketosis seems about my record. I'm not sure you could get in there faster without:

- a. an extensive workout on Monday assuming a normal carb-up. Mine only lasted about 45' which isn't long enough to deplete muscle/liver glycogen and blood glucose.
- b. insulin: the Bodyopus trick that Dan didn't discuss in the book. It can get you into ketosis faster and carb you up better. Of course, it can kill you in a heartbeat too so don't fuck around with it unless you know what you're doing. Even then I wouldn't fuck around with it. (Note: actually, I'm just stupid enough to try insulin if I could get my hands on some.) As an interesting side-note, another email correspondent (MF) who I have been discussing T3 upregulation with tells me he knows of some trainees who carb with insulin prior to working out and then use insulin right after to get back into ketosis who are getting great results. Scary.

Supplements: Again, just normal supplements (multi-vitamin/mineral, anti-oxidants, glucose disposal agents with breakfast) but nothing else.

Ok, let's talk about supplements on this diet: Dan suggests creatine and carnitine if you don't eat red meat. The creatine I can understand as numerous studies have found it to have an effect. The carnitine I question seriously. Almost all of the research I've seen on carnitine suggests that it has little or no ergogenic effect as far as fat burning is concerned except *maybe* at prohibitively high doses (like 2-6 grams per day for weeks on end. At about \$1 per gram, you can do the math.) FYI, Pasquale says the same thing about carnitine. Thing is, one study I read used glycogen depletion and fat loading

to induce higher than normal levels of free fatty acids in the blood and still found that the body still had enough carnitine to burn all the fat present. Anyone tried this stuff with BO/AD? I suppose it's feasible that high intensity cardio with very high ketone levels might deplete carnitine levels (and I have seen studies that low liver carnitine levels can inhibit ketogenesis so it might be useful if you are having trouble getting into ketosis) but most of the research I've seen don't support it's use. Especially not at \$1/gram (and, yes, I know you can get it cheaper mail order).

Tuesday: Did my push workout today and felt rather weak. No lifts dropped but none went up either. Again, recall that, this week, this is my 3rd day in ketosis and I'm not running on ECA. At least I was back at World Gym today. I actually got a decent pump from this workout which kinds of surprised me. Followed this workout with 20' of cardio at a HR of about 130.

Diet: Again, noticed my appetite up quite a bit which is good since I want to increase calories to try to raise T3 levels. In fact, my morning temp was already back up from 96.4 to 97.0 this morning. Still shitty as all hell but it's getting there. Anyone know where I can score some Cytomel? Just joking (don't want the DEA coming to my door). Additionally, evening temp, which has hovered around a low 98 is up to 98.5 which suggests to me that T3 levels are starting to come back up. At least, I hope they are.

Under the heading of "don't ask why this occurs to me":
As you know, I use these weekly updates to both chronicle my progress (or lack thereof) on Bodyopus as well as offer my thoughts on ways to make it better, more efficient, etc. Here's the thought for the day: We know that, while in ketosis, ketones are excreted through the urine and breath. And, once the ketones are gone, the fat they came from is gone as well. Question: Would drinking tons of water to increase urine volume hasten fat loss or would it just empty the bloodstream of ketones? As the header suggests, don't ask why this occurred to me.

Thinking more about this more, I don't think this would work. I would guess that ketone formation is based simply on caloric need. Urination wouldn't increase that. For the record, is this why the epileptic kids on ketogenic diets are water restricted? That is, since the ketones seem to be what keeps them from having seizures, would too much water lower ketone levels too much to do any good? Would this apply to BO dieters since we want ketones in the bloodstream to be anti-catabolic? Will our heroes escape from the clutches of Dr. Freeze? Tune in: Same Bat time, Same Bat channel.... umm, sorry about that, low blood sugar makes me a bit silly sometimes.

Another in the don't ask category: For those keeping score, we know that my T3 levels are low from too much dieting, too much cardio, and too much ECA. I've already said that I'm going to increase cal, cut back on cardio, and drop ECA for a week or two to allow levels to reset. But, another option occurs to me. We know that one of the main functions of T3 is regulation of body temperature (i.e. raises it). And we know that sitting in cold water burns calories through what's called cold induced shivering thermogenesis. Question: Could cold exposure (i.e. cold showers and baths) help to upregulate T3 levels? According to the book I mentioned last week ('Fat Management: The Thermogenic Factor' by Mowery), cold exposure causes upregulation of 5'-deiodinase activity which is what converts T4 to T3. Could ice cold showers or baths (brrr) be the solution to my and other dieters thyroid problems? Worth a shot I guess. If nothing else, it will help me deal with the lack of a girlfriend, right? ;) That and the new issue of Muscular Development. <double grin> (I apologize if anyone finds my references to stuff like this irrelevant or stupid but, I'm trying to keep these updates humorous and readable. Trust me, it's better than my usual writing style which is drab and research like. "Dammit! Jim, I'm a physiologist, not a doctor.")

Wednesday: Nothing new and out of the ordinary today. My appetite is still up but I don't feel I should restrict calories heavily until T3 comes back on line. I ended up putting in 45' total of walking with my clients so I was a good boy and didn't do any extra cardio work.

Out of boredom, I checked for references on T3 downregulation, especially as it relates to impaired 5'-deiodinase (5-D) activity (which converts inactive T4 to T3 in the body). Most of the studies were done on rats but there was some interesting stuff. I found two possible mechanisms.

a. In the pineal gland: There is apparently 5-D in this gland. When melatonin levels are low, 5-D activity decreases. Supplementing with melatonin (in rats, recall) activates it again. Question: will this have any effect other places in the body, like the liver?

b. In the liver: A deficiency of selenium came up several times as having a severe effect on liver activity of 5-D. Additionally, low blood levels of glutathione (related to selenium levels) cropped up in the research as negatively affecting 5-D. Hypothesis: Dieting plus strenuous exercise lowers selenium stores (for whatever reason, perhaps mediated by free radical generation or something) which lowers 5-D activity. Question: would a simple selenium and/or glutathione supplement be enough to get 5-D activity back on line? Or is there another mechanism at work at work here? Perhaps something worth investigating if my body temp doesn't come back up. This seems an awfully simple explanation for this problem though.

I did check on cold immersion and doing it for long periods of time (like 8 hours) does seem to raise T3 levels in animals (usually hamsters for some weird reason). Two problems with this idea:

1. I'm not sitting in ice cold water for 8 hours.
2. No telling if the transient increase in T3 is permanent (I tend to doubt it very seriously).

I think I'll check out the selenium angle first.

Thursday: Went for a nice easy walk for 45' before breakfast to stretch some of the soreness out of my legs and burn some ketones. This, on top of 10' walking with a client this afternoon, was my sum total of cardio today. Oh, yeah, morning temp is still at 97.0. Which is better but I would still like it higher before I continue dieting down.

Notes: Ok, time for some more ranting. From my updates, I've gotten generally positive responses. Either people thanking me for helping them avoid my mistakes or wanting more information. But, I've gotten a couple that really pissed me off. One was from a guy I rather mercilessly flamed here on m.f.w so I guess I started it. We managed to figure out the hang up (basically, some philosophical differences regarding how strictly to follow Bodyopus, etc.) No problem. However, I answered one today that was truly annoying. Basically, this person (who's name and email address I will not give out) wrote me to criticise my update and Dan's diet, etc asking why I was risking screwing up my body, etc, etc. Basically, he hit me with all the same incoherent gibberish that most mainstream nutritionists give about ketogenic diets (ketosis is dangerous, just eat less to lose weight, blah, blah, blah). Wait. Stop.

Ok, originally, I had written a rather scathing criticism of the comments this person made in private email. But, I've decided not to print all of them here. Here were his basic criticisms and the points that I tried to make to him.

1. If you can't lose fat on a high carb diet, it's because you are eating too many calories. No kidding. And, he's right. Even doing about 10 hours per week of various cycling and 1-2 weight sessions per week, I was not losing bodyfat. I told him that a high carb, very low fat diet kept me hungry all the time and I couldn't control my food intake. Would a 60/20/20 approach have worked just as well? Perhaps. But, I tend to extremes. It's either no fat (I was eating less than 10 grams of fat per day at this point in my life) or all fat (Bodyopus). For many people, high carbs just keep them hungry due to severely fluctuating blood sugar and insulin levels. In which case, lowered carbs and higher fat and protein are appropriate. Is the extreme of a ketogenic diet necessary? It is for some. Would a Zone (or Isometric) diet work just as well for me? Perhaps. But, it's actually more difficult

for me to do a 30/40/30 diet (or 33/33/33) than either low carb or high carb just because of the logistics involved (balancing carbs, protein, and fat is a big pain in the butt).

2. Competition bodybuilders get shredded all the time with high carbs. Ok, here's the big problem. He is making the incorrect extrapolation (he still didn't get this point after I made it several times) that using what works for an extremely small percentage of people (what percentage of people do you figure has a realistic chance of stepping on stage for a bodybuilding competition? 2%? 1%? Less?) to the rest of us. I made the point (which he also missed) that perhaps competition bodybuilders have higher androgen levels. Or higher thyroid levels. Or better genetics. Or use appetite suppressant drugs. Or take steroids (yes, this occurs even at 'natural' competitions). I tried to get across to him (to no avail) that I could train and eat like Dorian (or how about Chris Faildo for a natural) and still be small and weenie. I could ride the same bike the Lance Armstrong (cyclist) uses and train just like him and still suck. I could take every supplement out there and train like a madman, and I'd still be small. What he doesn't seem to understand is the massive impact that individual genetics have in people's response to things (humorously, he gave me the good old Mentzer argument of "Since we all have the same underlying physiology, we should all respond to the same thing. Which is the basis for medicine. Etc. etc." Then why, KC, do drugs work differently for different people? Why can't we all just eat the same, train the same, and look the same. It's called biochemical individuality. Yes, we all have the same basic underlying physiology but not everyone will respond in an identical fashion to the same things.) I'm not trying to make excuses for why I'm small. Just being realistic. I asked him why some get great responses from steroids and others don't? No response to that one. Again: biochemical individuality. Some people just don't respond well to high carbs in their diet. I think I happen to be one of them. IAE, all of these arguments seemed to go completely over this guy's head. Hey, at least I tried.

3. He implied that I was saying BO was a miracle diet. I never said any such thing. BO works for *me*. Maybe it will work for *you*. Maybe not. If you can get cut on high carbs, more power to you, don't bother trying a different diet. If you can't, try something else. It's the same thing with training or supplements. Some get great results with HIT and overtrain on anything else. Some *seem* to need higher volume to get better results. Most get wonderful results from creatine. I took it and just got sick at my stomach. I suppose this guy would still tell me that, since creatine works for bodybuilders, it should work for me since we all have the same underlying physiology. It's the exact same logic as with the high carb vs. low carb argument.

In-di-vid-u-a-lity. That's a big word, isn't it? Can we say it together?

4. Finally, he commented that you just can't possibly function as well on

low carbs as with high. I told him that it amused me that HE could tell ME how I felt on this diet (almost as good as when somebody at PR Bar told me my bodyfat over the phone). This point he did get, to his credit. He finally asked me if I felt my performance was as good on BO as with high carbs. I replied that, being a test of one, it's hard to compare. But, except for this week's lame workouts, my strength has been increasing in the gym. My cycling and skating endurance is not affected. And, most of all, I don't get the low energy crashes during the week that I used to get with high carb due to changes in blood sugar. He told me that he feels run down on low carbs. I asked whether he'd ever tried a true ketogenic diet (low carbs, mod protein, AND high fat) for a decent period of time. This (time) is the key. I felt like crap the first couple of weeks. No energy, incoherent (more than usual), the whole 9 yards. I've adapted now and feel fine. Again, this is what works for ME and ME alone.

Alright, enough of that. But, do me a favour: If there's anyone else out there who wants to debate the relative merits of a ketogenic diet, please save the standard arguments of "It's not healthy." or "Your body needs carbs to function." as they are not true. Also, if you haven't actually tried a ketogenic diet, please don't pre-suppose to tell me how I'm feeling on one. Does that at least make sense, KC?

Friday: Here's the tabulated Friday changes in bodyfat:

Day	Date	Weight	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Fri	5/17	145	8	27	18	8	41	12.2%	17.7	129
Fri	5/24	144	5	24	19	8	37	10.4%	15	129
Fri	5/31	146	5	24.5	17	8	37	10.4%	15.1	130.9
Fri	6/7	146	5	25.5	15.5	7.5	38	11.3%	16.5	129.5

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

Notes: Well, it looks like I backslid a bit this week. It's too bad that I didn't count calories. I'd be interested to see how many more calories above maintenance I was eating in comparison to how much fat I appeared to have gained. Also note that part of this could be measurement error. The break between 10.4% and 11.3% bodyfat is at 37 mm of total skinfold. So, if I mismeasured by even 1 mm over, it would overestimate my overall bodyfat. Considering that skinfolds haven't changed much if at all, I have trouble believing that

I gained 1.5 lbs. of fat in 5 days with low carbs. But, it does point out that it's time for me to at least start counting calories again if I ever hope to have my abs show.

The workout. As described last week, I have opted out of the high rep workout and replaced it with a tension workout in hopes of harnessing the high carb anabolic effect of the weekend. In a fit on insanity, I decided to give a Leistner-like workout a try (HIT to the ultimate degree). Here was the workout (and, please try not to make too much fun of my poundage's. I am just a weenie speed-skater at a bodyweight of ~150):

Warm-up/cardio 20' on bike at 120 HR.

Deadlift: 135X8 warm-up, 1' rest, and 185X10, 1' rest, 185X10, 1' rest 185X10 supersetted with squats: 185X10, 1' rest, 225X8. Pant, pant.

Went to incline DB benches (2 sets to failure with 1' rest), cable row (2 sets to failure with 1' rest), lateral raise machine (2 sets to failure), assisted chins (2 sets to failure). The whole thing only took about 30' but I was gasping for air the whole time.

Finished with a 15' cooldown on the bike and then started the carb-up. Still using HCA, vanadyl, chromium, and magnesium and eating junk food but I will stop carbing again Saturday night as it seemed to work well last week.

Saturday: I tell you what, if Dan is right and soreness is a good indicator of growth stimulation then I should be massive by Monday. Friday's little experiment torched everything. Even my arms are worked and I didn't do any direct exercises for them. Low back, quads, hams, even traps are just aching today. I am so glad I just get to sit at home, sleep and eat junk food. Even doing cardio would flat out nearly kill me. The HCA is having the same effects as last weekend as far as blunting hunger but I'm still eating until bedtime tonight (when you only get carbs for 30 hours a week, you have to make the most of them). It's all been pretty much processed crap but I've made sure to get some protein in there as well.

Sunday: Ugh. I definitely overate yesterday. I also went and saw 'The Phantom'. It sucked big time. Don't waste your money if you are thinking about seeing it. In any case, a quick and dirty skinfold measure show no change so I don't feel I had any spillover from my shortened carb-up. Also, morning body temp showed as 97.9 (yes!). We'll have to see if this is transitory or not. One email correspondent pointed out that a single 200 gram serving of carbs is enough to upregulate T3 levels but I don't know for how long. This makes me wonder if Pasquale's idea of the mid-week carb-up isn't a bad idea. Basically, Wednesday morning, you can take up to 1000 calories of simple carbs to get an insulin pulse, etc. I'd be somewhat worried about getting kicked out of ketosis but perhaps all that lovely glucose would just go into the cells. If

you trained right afterwards, you might bump back into ketosis as well.

I did a light 30' of cardio on the bike to start burning some blood glucose and that ends the week.

A correction: In another thread, I answered a question about the old Atkins diet and Bodyopus/Anabolic diet incorrectly (thanks to JR who set me straight in email). The *old* Atkins diet was built around sustained deep ketosis by keeping carbs to a bare minimum at all times. Dr. Atkins has since modified his diet so that after a couple of weeks when ketosis has been established, carbs are slowly added back in until only mild ketosis is indicated by the Ketostix. However, the standard Atkins diet, new or old, still does not have the weekly carb-up like Bodyopus/AD.

Also, keep in mind that not everyone will respond to that frequent of a carb-up. The same person who pointed out my errors regarding the Atkins diet is one of them. He found that carb-ing each weekend led him to simply lose and then regain the same bodyfat. He is the person I mentioned last week who alternates longer periods of low carbs (4-6 weeks) with short periods of carb (4-7) days. I seem to recall him saying he'd lost about 70 lbs. of fat with this approach which is pretty damn amazing. Sort of puts a hole in the old one-size fits all idea of nutrition and dieting. Hear that KC?

Addition: JR also gave me the name and number of a place in Florida (which I mentioned in yet another m.f.w thread but I had lost the phone number) which specialises in food for Atkins/low carb dieters. It is called: The Sugar Free Marketplace and the phone# is: 800-726-6191 It's in Tamarac, FL

JR tells me that it is somewhat expensive as they have to ship overnight so the food doesn't spoil but for those of you getting bored with tuna in mayo and ground beef with mustard every meal, this might be an option. Also, I'm trying to get my gourmand (BK) to write a low carb cookbook. He is a whiz in the kitchen and has told me about Designer Pancakes and other delicacies.

If you're wondering why I don't typically use names when I refer to people in these updates, it's simply for reasons of confidentiality. Without asking someone if it's ok to use their name, I don't feel that I should be posting it for the world to see. Same reason I wouldn't give out a client's name and specifics to anyone. It's just not right without their explicit permission.

Monday: The body composition shows:

Day	Date	Weight	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
-----	------	--------	-----	-----	----	-------	------	-----	----	-----

Mon 6/3	149	5	25.5	15.5	8	38.5	10.4%	15.5	133.5
Mon 6/10	155	5	26	16	8	39	11.3%	17.5?	137.5

I appear to be backsliding. Considering that I haven't been dieting and eating like shit on the weekends, I'm not terrible surprised. This week, I'm going back to counting calories (starting at 2000 per day) and will be more attentive to my carb-ups and everything else. Next week I hope to start dieting for real again (meaning cutting calories). Maybe I'll just forge ahead and start again this week (I'm tired of waiting for those abs to arrive).

Next week: The differences and similarities between Bodyopus and the Anabolic Diet part 2: the diets.

Happy Bodyopusizing,
Lyle McDonald

Subject : My bodyopus experience Week 7

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Date: 1996/06/17

Alright, continuing from last week, here's a further comparison of the Bodyopus (BO) diets and the Anabolic Diet (AD).

What about the diets themselves as that's what people really want to know about? At their essence, both diets are identical. To use Dan's own words, they are "A cyclical ketogenic diet with 5 days of no carbs and 2 days of carbs." What this means is that you will enter ketosis during the low carb phase and then undergo glycogen supercompensation during the re-carb phase on the weekends. Both are an update of diets like the Rebound Diet, Dan's Ultimate diet and others like the Atkins diet which uses sustained ketosis with no carb up (in BO, Dan gives an interesting history of these diets in BO but they are not really necessary except to establish precedence and hopefully convince those who are still in the "Ketosis is dangerous" mindset).

Ketosis has several good things going for it as it spares protein during dieting (numerous studies of very low calorie diets have found that ketogenic diets cause greater fat loss and less muscle loss than a same calorie high carb diet). Also, you lose fat faster as ketones convert to energy inefficiently. By adding thermogenics and other compounds to the diet, you can possibly attain a fat loss of 2lbs/week with no loss in muscle. Which is absolutely awesome but

you have to get everything absolutely correct for it to happen. And have good thyroid levels, which I don't. Also, ketones in the blood stream blunt hunger, which is a nice bonus when you're trying to lose weight. Somebody on m.f.w commented that he didn't like the Bodyopus diet since he was losing weight from lack of hunger. Umm, maybe I'm missing something but, isn't not being hungry while dieting generally a good thing? (he has since contacted me and said his concern was that he was eating too little to sustain muscle growth. I told him he was unlikely to gain much muscle while dieting if he's natural. BO shines in that it maximises fat loss with minimal muscle loss or a slight gain). Strangely, as I mentioned before, this was the major criticism of the Atkins diet in the 70's: it kept dieters from being hungry all the time which they saw as a drawback. And you wonder why I think most RD's are full of shit.

To be honest with you, the primary differences between BO and the AD are in calorie levels but I think this reflects the different goals of each. BO is set up as a maximal fat loss diet with minimal loss or maintenance of muscle mass. Hence calories are set at maintenance or below to hasten fat loss. The AD has three different phases which set calorie levels for you. They are Induction with calories at 15-18 times bodyweight to allow you to adapt to the diet, Mass with calories at 20-25 times bodyweight per day for gaining maximal muscle with minimal fat gain, and Cutting where you cut calories from the mass phase. BO could become a mass diet if you increase calories to 20% above maintenance. It's tough to do unless you enjoy force feeding yourself.

BO (the book, not the diet) specifies a training protocol that is supposed to maximise effects based on the metabolic state of the dieter. I discussed it and the problems I feel it may have a couple of weeks back so I won't reproduce it here.

The AD does not really get into training structure. Pasquale just says to train heavy with minimal rest periods to maximise GH and testosterone release during training for mass gaining. Big fucking help, Mauro.

The other big difference is in the carb-up phase on weekends. Dan has done his homework and gives very specific recommendations as to the amount and type of carbs to consume (and, no, I'm not going to reproduce them here. You can buy your own copy of the book). Sufficed to say, they are a pain in the ass requiring you to get up in the middle of the night to eat for truly maximal results. Additionally, you eat only 15% of your total calories as fat. Pasquale makes no recommendations on the weekends except that you maintain fat at 30-40% of total calories. This is, he says, to keep the fat burning pathways open. His only comment is that carb-ing should stop when you 'feel' the fat starting to come on, whatever that means. Basically, you start to feel bloated and retain water under the skin and it's time to stop.

Past that, the rest is details. Duchaine gets into all the minutiae of dieting some of which probably has never been addressed before. Pasquale does not. Pasquale fills his book with sample diets and food lists (yawn). Dan fills his with 50 drugs that most of us will never use and a chapter on diuretics that won't apply to most of us anyhow (however, and I forgot to mention this last week, Bodyopus would make an extremely complete dieting book for the natural bodybuilder in which case the chapters on dieting drugs and diuretics are applicable. My assumption, perhaps incorrect, is that most of us will never step on stage as bodybuilders). Dan discusses training although I'm not convinced his training structure is ideal for most of us. Pasquale says little about it. Dan gives lots of background information on low carb diets. Pasquale gives the history of high carb diets and why they are stupid. Neither really address the potential health problems of a high fat diet for some people. Dan makes reference to it but this is the typical complain about ketogenic diets by most nutrition 'experts' (i.e. the high levels of fat are unhealthy which is true if you have carbs in your diet but not if you don't.) and it would be nice to have some references or data to support the lack of health risks (I guess it's time for another trip to the library). Dan discusses cool toys like Ketostix and glucometers and tells us how to use them to chart progress. Pasquale mentions neither. However, before you run out to your pharmacy, let me tell you, even in deep ketosis, my glucometer has never shown me below about 70 blood glucose. And, you almost can't not be in ketosis after 3 days without carbs assuming you train even half-heartedly so the Ketostix are just something cool to piss on. (Don't get me wrong, I think ketostix are extremely useful during the first few weeks of dieting as they will ensure that you are getting things right. At this point, I can more or less tell when I'm in ketosis as I do essentially the same things diet and training wise, more or less, each week. Of course, this week has been the exception but that's below). The Atkin's dieters have been doing this stuff for years. Dan has simply made the ketogenic diet much more workable and elegant for it's goal which is maximal fat loss with minimal muscle loss for bodybuilders and other athletes. By contrast, the Atkins diet is for generally sedentary people who can't lose weight with high carbs but it doesn't have the weekend carb up which has some specific metabolic effects (again, buy either the AD or BO for more details).

Ok, here's what I think the biggest difference between the two diet plans are in a nutshell: BO is designed to achieve maximum fat loss with minimum muscle loss. The training design is structured to achieve maximal glycogen super-compensation during the weekends with no carbs going to tissue repair. Fat is minimised in the BO plan as it will limit recarb. Fat is not really limited in the AD. As I said last week, this simply screams pre-contest bodybuilder to me. For that person, the strict BO plan makes sense as it should get them into peak condition for the day of their contest. But, what about the rest of us? I'm not convinced that the high rep workout is critical. Ok, if you want

to be pumped as hell for a pool party this summer, do the high rep workout instead of a normal high tension workout prior to the weekend carb-up. The AD, depending on the phase you're in, is geared towards weight maintenance, muscle gain with minimal fat gain, or fat loss with minimal muscle loss. So, in a sense, the AD could be said to encompass the BO diet. Recall that BO the book does get into a lot of other topics like details about food quality and the other more 'normal' diets as well as thyroid and thermogenics that the AD book doesn't.

But, for most of us, both diet plans (as I've stated in another thread) can essentially be summed up by:

1. Mon-Fri: no carbs (or at least below 30 grams)
2. Sat-Sun: carbs. If 48 hours of carbs doesn't work for you, cut back to 36 and then 24 hours to minimise fat spillover.
3. Lift weights and do cardio as per your normal routine (hi AJ)

Even Dan himself says (pg. 281): "While some dieters can follow BODYOPUS with the simplest of directions, such as 'no carbs for 5 days, then eat like crazy for 2 days', most of us yearn for more precision." If you want that precision or "All the plumbing" as well as Dan's strange idea of humour, buy Bodyopus. The AD book isn't nearly as entertaining. Just the facts. But not even all of them for that matter.

This will probably get you 90% of the way to your goals IMHO. As pointed out to me in detail by, shall we say, an interested correspondent, the details in Bodyopus (i.e. glucose disposal agents, thermogenics, etc) are what make it work. If you want truly maximal fat loss, optimal muscle supercompensation, etc, follow BO to the letter. Otherwise just don't eat carbs for 5 days and then carb up. Make sure to train at least 3 days per week with weights. If a 48 hour carb up means you spillover, cut it back to 36 hours and then 24.

The other details might maximise your results or might be useful for the contest bodybuilder but for the rest of us, the above distillation will work just fine. As I said in another thread, people have been losing fat with the Atkin's diet for years without most of this. Again, Dan has refined the ketogenic diet rather well and gotten into the details (to swipe a Colganism "God lives in the details.") When you need to get to 4% bodyfat and contest ready, buy Bodyopus and follow it's directions to the letter with no exceptions and I think Dan's genius will show through.

Lyle McDonald, CSCS

Someone on m.f.w suggested I try a different format for my body composition measurements to avoid so much confusion as to what the changes have been. So, I've made two charts (one

for the repeat Monday measurements and one for the Friday lower down). Let me know if this has too much information or could be better presented. I can only imagine how this will format to m.f.w.

Day	Date	Weight	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	4/31	156						15.4%	24	
		132*								
Mon	5/6	153						13.6%		
		21								
		132*								
Mon	5/13	154	7	27	18	8	42	12.2%	18.8	
		135.2								
Mon	5/20	151	6	27	17.5	9	42	12.2%	18.4	132.6
Mon	5/27	154	5	24	18	8.5	37.5	10.4%	16	138
Mon	6/3	149	5	25.5	15.5	8	38.5	10.4%	15.5	133.5
Mon	6/10	155	5	26	16	8	39	11.3%	17.5?	137.5

* These two measurement were taken with the one site home callipers. Therefore, they may or may not be directly comparable to the other measures.

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

Not much change this week but that was to be expected. I was not cutting calories or doing much in the way of aerobics. Reasons are given below. The 6/10 Monday measurement was at the end of this week. It appears that bodyfat is rebounding somewhat but it's hard to tell as small changes in caliper measurement moved me into the next bodyfat category. I guess it's time to start dieting down again and counting calories. Oh, goody.

My week at a glance:

Sunday: I did 30' of mild cardio after returning to protein and fat eating. I definitely overate yesterday. Going to have to watch that from now on.

Monday: As of this morning, it appears that I have regained some of my lost bodyfat (bummer). I think my eat all you can weekends may have been a bit over the top. I'm going to start keeping track of calories again this week (shooting for about 2000 per day) before I start restricting calories again next week. Did my normal light walking with clients. I have also decided to try even more frequent training than last week (three days per week). I want to try the Ironman Fat to Muscle workout system. It is a 5 day split routine working

basically two bodyparts each day and each muscle gets hit directly once per week and indirectly once per week. Along with this, I will do a minimum of cardio.

Diet: Ate about 2000 calories per day. I'm going to stay there all this week and see what happens (gain, lose, no change in bodyfat) before taking it any lower.

Supplements: All the same. Strangely, I'm not yet in ketosis as of tonight so I took another dosage of vanadyl before bedtime. Perhaps all that junk food carbong this weekend is catching up with me. Also, a friend sent me a paper off of medline that found chronic use of vanadyl (100 mg/day) had effects as long as two weeks after stopping the supplements. So, as far as insulin sensitivity, I think a case could be made for daily use rather than just until I hit ketosis.

The workout: As mentioned above, I'm giving the Ironman "Fat to Muscle" workout a try this week. It is a 5 day split routine with little to no cardio. Today was:

warm-up: 10' cardio

chest: 4 sets flat bench, 4 sets flyes

delt: 3 sets press, 3 sets lateral raise

abs: crunches

cool-down: 15' cardio

Strength seemed good and constant (no big drop-off between sets as far as reps go) but I can't compare it to anything last week. I promise I'll stick with this workout long enough (next 3-4 weeks) to see what is happening as far as strength gains. I don't intend to do more than 10' cardio before and 10-15' cardio after any single workout (an idea stolen from Jeff Krabbe of Anabolic Diet fame). That should hopefully avoid any problems with protein breakdown from doing cardio for too long at one time while still getting some of the calorie/ketone burning benefits.

Tuesday: Well, my pecs and delts are sore (no surprise) but I'm still not in ketosis which is very strange. I typically hit ketosis at about the 48 hour mark so I'm not sure what is going on. It could be that I did less activity on Sunday (my first day with no carbs), or ate far too much during the recarb, or that my weight workout last night wasn't extensive enough to lower blood glucose enough. In any case, I'm still taking vanadyl and other blood glucose disposal agents with meals. If I'm not in ketosis by tonight, I'll know something is very wrong.

Diet: Same as yesterday. About 1700 calories or so.

Workout: Today was lats and brachialis for training:

Lats: 4 sets chins, 4 sets pullovers

Brachialis: 3 sets hammer curls, 3 sets reverse curls

Again, warmed up with 10' cardio and cooled down with another 15' of cardio.

Supplements: Oh, yeah, back on ECA but only at 25 mg of ephedrine per dose.

Dammit, I'm still not in ketosis as of this evening so something is definitely wrong. Several hypotheses:

1. Too much sucrose/fructose this weekend. Thing is, it didn't affect my descent into ketosis last weekend. Not likely, IMHO.
2. Training structure: This could be it. I got a mail from someone following Dan's Ultimate Diet and he told me that a Monday workout from hell (20 sets of chest of 10-20 reps, hmm that sounds familiar. can you say bodybuilder depletion workout) got him into ketosis almost immediately.

Ok, theory time: I ate shit all weekend (processed sucrose and crap). This led to a fully re-carbed liver (which, recall is a large determinant in how quickly one enters ketosis). So, what does dumbass me go do? A short, two bodypart workout on Monday followed by minimal cardio. Which made sense at the time but obviously didn't burn enough glycogen to empty the liver.

Ok, I'm finally in ketosis (after 72 friggin hours). It took me 45 hard minutes on the Stairmaster (5X90" intervals and about 15' at anaerobic threshold) to do it but I finally did. This seems to support my idea that I should have done more training on Mon and Tue as far as weights. Which means I'll probably switch my training structure back to what it was last week. Or, how about this idea: been reading more of the NFPT methodology. They suggest as a pre-contest thing to add sets of 20-25 reps to failure to deplete glycogen on top of normal training. Could this be the best way to do the early week workouts: do your normal sets of 6-8 reps to failure for the anabolic effect followed by one or two sets of 20-25 reps of the same exercise to deplete glycogen to hasten entry into ketosis. Hmmmmmmm.

Ok, something interesting. In private email, JR told me that melatonin keeps him from losing weight (recall that he's on the long term ketogenic diet for 4-6 weeks followed by 4-7 days of carbs). I was taking melatonin this week (in hopes of upregulating at least pineal gland 5'-D) so maybe that was the problem. Needless to say, I dropped this from my nightly pill stack tonight.

He also told me that 4g/day of carnitine kept him out of ketosis. Which I find strange. Can anyone give a potential reason why? Perhaps it was causing too many ketones to be burned which cleared the urine out.

Ok, what about this water thing? Again, JR tells me that the consensus on the low-carb mailing list is that extra water

hastens weight loss. The theory being that it carries out the ketones before they can be burned for energy which necessitates creating more. Thing is, we want ketones in the blood for anti-catabolic effects, right?. He commented that perhaps the dieters he speaks of are losing muscle (he did say weight loss, not fat loss) as many of those on the lo-carb list don't seem to make the distinction between fat loss and weight loss. I tried to explain to them that the 4 lbs. they gain when they carbo-binge is not real weight but water and glycogen. To gain 4 lbs. in one day, you'd have to eat 14000 calories or more above maintenance, which I don't think is physically possible without an intravenous glucose drip. I can pig out on the weekends but I'd bet 5-6000 calories is my limit before I get so full that I'm sick.

Wednesday: Stranger and stranger. As of this morning, I'm back out of ketosis which has never happened before (No, baby, I mean it, this has never happened before. No, it's not you....it's me...) to me although it happens a lot to a friend of mine (he just can't seem to get into sustained ketosis no matter what he does). I'm starting to think that this week is basically a wash as far as results. Took me 72 hours to get into ketosis, can't even stay there. Aaaarrrrggggghhhh. And, I have the leg workout from hell to look forward to this afternoon. Double aaarrrrggggghhhh.

On another note, a couple of interesting titbits. Number one, I looked again at what the U Cal Berkeley Wellness letter had to say about ketogenic diets. Their biggest complaint (referring to a recent study) was that it impaired mental functioning *during the first week* of ketogenic dieting (their words, my emphasis). Well, no shit. Again, this points out how desperate the mainstream still is to discredit a diet approach that works for many. If we were to do a supplement study that drew conclusions after one week, it would get laughed out of the journals. But, do some half-assed study on ketogenic diets for one week, and it's frigging gospel to the nutrition people. Give me a break.

On a related note, I came across a book called "The Epilepsy Treatment Diet" at our biomed which details the long term (one year) ketogenic diets that the researchers keep epileptic kids on. So, the message seems to be that ketogenic diets are safe for use medically but unsafe as fat loss diets. Again, give me a friggin break. And, considering further that Bodyopus dieters only stay in ketosis for 4 of 7 days (or 2 of 7 days for me this week), the "ketosis is dangerous" argument just has to get thrown out the window. I only got a chance to glance at it but am looking for a copy to buy to see if I can glean any helpful details that might apply to Bodyopus. It gets into things like ketogenic ratios and starting calorie levels and such like that. To keep the length of this post down, I'll discuss the details of this book more next week. Ok, off to squat

until I hurl. Where's that damn pail...

The leg workout:

Squats: 2 sets of 10 followed by 1 set of 20. Ouch.

Leg extension: 3 sets of 10 to failure

SLDL: 2 sets of 8

Leg curl: 1 set and then my calves cramped.

Cardio: 30' to make sure I'm in ketosis.

Also, tonight, out of frustration over this week, I did another 30' of aerobics at about 150 HR. Probably a bad idea but I was in a bad mood (getting stood up by a client didn't help any). And, to try to make up for not being in ketosis for 3 days of 6, I'm going to overdo cardio tomorrow (as well as train upper pecs and tris).

Thursday: Something interesting to note today. Out of curiosity, I went to get my cholesterol checked. It's been about 3 years since my last test (at which point it was an awfully low 140 but I don't remember the HDL and LDL splits). In fact, I've been trying to raise it since blood cholesterol levels do show some correlation with testosterone (cholesterol is a steroid molecule and is involved in testosterone synthesis). In any case, the blood work showed me with a total cholesterol of 205 and a HDL (the good kind) of 49. This gave me a total cholesterol/HDL ratio above 4 (the ratio seems to be a bigger determinant of heart disease risk than the absolute numbers). I find this hard to believe. Even eating lots of fat (and lots of saturated fat), I find it strange that my numbers were this high. Many individuals report an improvement in lipid profile when they switch to a low carb diet but they are typically starting out with extremely high levels (250+). There's another reason I think this reading may be wrong. I checked this morning and I'm still in ketosis. Yet, the blood glucose measurement they did with my cholesterol test showed me at 73. Ketosis isn't supposed to happen until blood glucose gets to 50 or lower. This leads me to believe that the machine they are using may or may not be entirely accurate.

Ok, after that news, I went and spun on the Lifecycle (this is all pre-breakfast) for an hour at a HR of 120 (60% of my maximum) to try and make up for this week. I was definitely feeling shaky going out after that but I had left some string cheese in my car to eat afterwards. Yumm. I figure keeping the intensity that low (almost pitifully easy) should avoid catabolism.

Observation: Recall that I decided to try a more extensive training structure this week (the Ironman 5 day Fat to Muscle split). I have reached the conclusion that it is bad news on this diet and I will not be continuing it. Paging through BO again, I came across the statement that soreness (which may or may not be indicative of both muscle damage as well as recovery) lasts longer with low

carbs (no carbs to help repair damaged muscle fibers). My chest is still aching from Monday's workout and I never stay sore that long. Hence, I've opted out of another weight training day (today was to be upper pecs and triceps) until tomorrow. I'll be doing a semi-heavy full body workout prior to the carb up but I'm going back to last week's training structure (split body two ways on Mon/Tue and then work whole body on Friday) to minimise overall muscular trauma (not to mention soreness) next week.

I'm slowly coming to the realisation (as we say here in the south: "I may be dumb but I ain't stupid") that I should quit changing things so often. The first few weeks of this diet went the best as far as results. It's only since changing the training structure etc. that results have tapered off (we have another saying in the South: "If it ain't broke, don't fuck with it." Wise words from people who sleep with their cousins. On which note, I do have some 4th cousins I wouldn't mind...)

On which note, a joke: If you get married in Tennessee and divorced in Kentucky, are you still brother and sister in Alabama?

On a related note: For any who come down to the south, a bit of terminology: "Y'all" is singular. "All y'all" is plural. And, if someone offers "to carry you" to the gym, they don't mean it literally. For some reason, people down here use the phrase "to carry" to mean "to take". All they are offering is to take you to the gym.

Hey, I don't come up with this shit, I just report it. Also, watch out for banjo players who don't talk much. This *is* the south, where the movie "Deliverance" is a love story. Where the men are men, the women are women, and the sheep are very, VERY nervous. (No, I've never been that desperate and I haven't ever gone cow tipping so don't bother asking me about it.) Squeal like a pig, boy.

Oh, still in ketosis this evening although the colour is definitely lighter. I know, I'm getting as pathological about checking ketones as my clients get about weighing themselves. But, considering how badly this week has gone ketosis wise, I'm not taking any chances.

Friday: Here's the tabulated Friday changes in bodyfat:

Day	Date	Weight	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Fri	5/17	145	8	27	18	8	41	12.2%	17.7	129
Fri	5/24	144	5	24	19	8	37	10.4%	15	129
Fri	5/31	146	5	24.5	17	8	37	10.4%	15.1	130.9
Fri	6/7	146	5	25.5	15.5	7.5	38	11.3%	16.5	129.5
Fri	6/14	146	5.5	25	16	8	38.5	11.3%	16.5	

129.5

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

Notes: Well, comparing by Monday's measurements, I have gotten back on track (17.5 lbs. of fat down to 16.5 today). I'm still higher than I was two weeks ago but I'm back on track and plan to make the final dieting plunge over the next two weeks. Also, had a talk with my director today about the above measurements. One thing that has not made sense to me is the rather major changes in lbs. of bodyfat with no change in bodyfat percentage. Meaning this: let's say you have a person with 135 lbs. of lean body mass and 15 lbs. of fat mass. That is 15 lbs. fat/150 lbs. total = 10% bodyfat. And, his skinfolds come out to about 37. Now, feed him creatine and he gains 10 lbs. of water (which, recall, is reflected as lean body mass). Now he's got 15 lbs. of fat with 145 lbs. of lean or 15/160 = 9.375% bodyfat. But, his skinfolds, if measured, most likely wouldn't have changed as far as total numbers. This leads me to think (this is what my director clued me in on) that the lookup charts and bodyfat prediction equations aren't that accurate in the short term. And that my Mon and Fri measurements aren't accurately reflecting changes in fat mass. I think simply using skinfold measures (which have gone up slightly this week) might give more accurate indications of what's going on. Does this make sense to anyone else out there?

Friday: I had originally intended to do a light-heavy workout today before starting my carb. But, I am still sore from this week's training. So, feeling awfully lazy, I did 2 loops of a depletion workout, got too bored, and started carbing. Next week I go back to what worked earlier in this diet (heavy Mon,Tue, heavy Fri). I will lose this last 6 lbs. of bodyfat within the next 3 weeks if it kills me.

A funny: Before I went to work this afternoon, I was channel surfing and came across big Lou Ferigno on some inane talk show. He was demonstrating some exercises, etc. The host, of course asks "Ok, what about steroids." Big Louie, with a straight face even, responds: "Oh, I don't believe in them." Wow, I guess the Weider Anabolic Mega Paks are what brought him to the Masters Olympic at 300 lbs. and 5% bodyfat. If I'd had time, I would have shit my pants laughing at this one.

Saturday: Continued carbing with no work out. I had intended to go skating this afternoon but all that insulin put me in a serotonin coma as usual. Stopped the carb-up at about 9 pm which is around 26 hours after I started. Basically ate junk just like last weekend but it's back to fat and protein tomorrow. The HCA did the job keeping my hunger down and, although my

stomach is physically full, I don't feel that water retentive, bloated feel that too many carbs and spillover to fat cells usually causes. For those who can't (or, like me, won't) follow Dan's carb-ing schedule to the letter, I highly recommend an abridged carb-load. Maybe next week I'll finally get the nerve to go the pharmacy and get some insulin (Duchaine assures me that it's not prescription and needles are not prescription items in Tennessees) to use while carb-ing and then again to get back into ketosis.

Sunday: Nothing to report. Back to protein and fat today. Went for a long bike ride to help burn out glycogen, burn some fat, and get me into ketosis this next week. Once again, the goal is 6 lbs. of fat loss in the next 3 weeks. It will be hard but I think I can do it. The key is not to lose any muscle. And, no, I'm not getting any clenbuterol although I'm still waiting for my first issue to arrive from Bodywise (they import non-scheduled items like Cytomel, etc) so I can look into what they've got.

Next week: "The Epilepsy Diet Treatment" Book and Ketogenic ratios.

Lyle McDonald

P.S. I promise to keep the next one of these things shorter.

Subject : My Bodyopus Experienc.week 8 (another long 'un)

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Date: 1996/06/23

"The Epilepsy Diet Treatment" book and ketogenic ratios

This book describes the diet used at John Hopkins medical center for the TREATMENT of childhood epilepsy. Due to unspecified mechanisms (possibly related either to ketosis or pH levels of the blood), a ketogenic diet will control epileptic seizures in children in a majority (something like 80%+) of cases without any dangerous medications (ALL of which have major side effects).

There are two things I took away from this book: Number one, for healthy, non-diabetic individuals, long term ketosis is safe and healthy. (the kiddies are frequently kept in deep ketosis on a calorically restricted (75% of maintenance), water restricted (so as not to dilute

ketone levels) diet for OVER A YEAR) So all the 'Ketosis is dangerous' people can just go take a leap off a bridge. These kids show no side effects (unless you consider treatment of a debilitating disease with no need to use medications a side effect) spending a year or more in deep ketosis. Bodyopus dieters spend 4 days out of 7 in ketosis. The kids are kept in deep ketosis the whole time. The average active Bodyopus dieter shouldn't get much further than trace to small ketone levels in the blood. So, please tell me, how it can be bad for us!? Anyone? Anyone? Bueller? Bueller?

Ok, the other thing (and this applies I think to my problems last week with getting into ketosis) I pulled from this book was the idea of the ketogenic ratio.

The book present a nifty little equation to determine the ketogenic potential of any food or mixed meal. It is:

$$\frac{\text{Ketogenic}}{\text{Anti-ketogenic}} = \frac{\text{K}}{\text{AK}} = \frac{0.9 (\text{fat}) + 0.46 (\text{pro})}{1.0 (\text{carb}) + 0.1 (\text{fat}) + .58 (\text{pro})}$$

Note: all values for fat, pro and carb are in grams. The ratio should be at least 1.5 for ketone production (which *is* what we're after, right?). Keep that number (1.5) in mind.

Again, this formula is useful if you want to find out the ketogenic potential of a given food or meal. When you work it out, you find that you pretty much have to drown everything in some type of lard to keep it ketogenic. If any meal becomes anti-ketogenic, there's a high possibility, I think, of getting kicked out of ketosis.

The ketogenic ratio (KR)

 The researchers at Johns Hopkins have basically determined what ratios are necessary to get the kiddies into deep ketosis to prevent their seizures. What the KR represents is the ratio of fat (highly ketogenic as only 10% can convert to glucose) to protein and carbohydrates (both of which are anti-ketogenic with carbs the most AK and protein in the middle).

So, a 4:1 KR would mean a dietary intake of 4 grams of fat (note that this is not calories and not percent of calories) for each gram of protein or carbohydrate. They give a handy chart (reproduced below) which gives the ketogenic ratios, and the caloric 'blocks' they use to figure out diets. I'll also present the percent of total calories this yields for ease of use.

KR Fat gms Pro/cho gms Fat cals Pro/cho cals Tot cals/block

1:1	1	1	9	4	
13					
1.5:1	1.5	1	14	4	18
2:1	2	1	18	4	
22					
3:1	3	1	27	4	
31					
4:1	4	1	36	4	
40					
5:1	5	1	45	4	
49					

Key:

KR = ketogenic ratio

Fat gms = grams of fat

Pro = protein

Cho = carbohydrate

KR	% fat	% pro/cho
1:1	69%	31% (The Anabolic diet is here)
1.5:1	77%	23% (Bodyopus is here)
2:1	81%	19%
3:1	87%	13%
4:1	90%	10%
5:1	91%	9%

Percentages of total calories were calculated by dividing the total number of calories by the calories from fat or protein. That is, with a 1:1 ratio, 9 of the 13 calories are fat which is 69%. The remainder is pro/cho.

Bodyopus suggests a 25% pro/75% fat ratio which is about a 1.5:1 ratio. The Anabolic Diet suggests 30-35% protein and 65-70% fat which is about a 1:1 ratio.

The kids are typically started at a 4:1 ratio to quickly establish deep ketosis (they are also fasted and water restricted but neither is something I would suggest to a healthy individual). This does not allow for much protein. As the kids adapt to the diet, the KR is brought down to 3:1, 2:1, and then 1:1 as they are weaned from the diet over the span of about a year (no explanation was given as to why they were taken off the diet at all. However, this does raise the question of staying on a ketogenic diet for longer than a year as any potential health problems have not been studied for this length of time.) Interestingly, the kids stay in ketosis even with a lowered KR which seems to support Pasquale's contention that the longer you stay on the diet, the more you adapt to it. Also, Jeff Krabbe has told me that, after a year of Anabolic Dieting, he essentially remains in ketosis and loses fat too quickly

if he doesn't consume enough carbs. Apparently, his body has made such a shift from carb metabolism to ketone metabolism that ketones have become the preferred fuel. Must be nice.

The book determines caloric need based on bodyweight, age and things of that sort. We should all know how to calculate caloric requirements (roughly 12Xbodyweight calories per day for moderately active, 15Xbodyweight calories for fairly active, and 18Xbodyweight calories for really active. Typically 10Xbodyweight calories is suggested for fat loss with little muscle loss for a high carb diet. The nature of ketosis is that you can consume maintenance calories and still lose fat though. So, if you really hate restricting calories, you don't absolutely have to. But you will lose fat faster.)

If you want to figure out your percentages, simply decided what ratio you want to use and then divide total calories by the total calories per 'block' (i.e. a 1:1 ratio is a 13 calorie block of 1 gram fat and 1 gram protein OR carbohydrate).

So, at 2000 calories/day and a 2:1 ratio (22 calories per dietary block), you get:

$$2000/22 = 90 \text{ blocks.}$$

$$90 * 2 = 180 \text{ grams of fat per day}$$

$$90 * 1 = 90 \text{ grams of combined protein and carbohydrate per day.}$$

Basically, you end up having to use lots of pure dietary fat (oils, mayo, cream cheese although it has some protein) to balance out your high protein foods like chicken. For example, a 3 oz chicken breast (not much) has roughly 24 grams of protein. At a 2:1 ratio, you need 48 grams of fat which is four and a half tablespoons of mayonnaise or about three and a half tbsp of pure oil. Yuck. If you hope to be successful with ketogenic dieting, you might as well get used to it.

Another option to figure out how much fat is to estimate protein requirements and work the calculations in reverse. The book suggests a value of 1 gram protein/kg of body weight to maintain lean mass. But, the kids are not working out. The question is how much additional protein do we need for weight trainers on a ketogenic diet. I've seen values in the literature as high as 2 grams/kilo of bodyweight (roughly 1 gram per pound) but that was looking at a high carb diet so there's no way to tell if it's an applicable value or not. The problem is, for a relatively large person, any ketogenic ratio above 1:1 will most likely put them above caloric requirements for a dieting situation. Let's do the math for a 200 lb individual assuming he needs 1 gram protein per lb of bodyweight and wants to achieve a 1.5:1 KR which is about the minimum I think will get him into ketosis assuming he's natural (i.e. using insulin would likely get you into ketosis consuming a lower ratio).

He will be taking in 200 grams of protein per day and 300 (200*1.5) grams of fat (this is assuming that carbohydrate grams are essentially zero). For every gram of carbs taken in, an additional 1.5 grams of fat has to be consumed to keep the diet ketogenic in nature.

So, 200 grams protein*4 cal/gram = 800 calories.

300 grams fat*9 cal/gram = 2700 calories.

Total calories is 3500 which is likely above maintenance (figure 15Xbodyweight for a decently active bodybuilder and you've only got 3000 calories per day). So, we have a problem. For this person to diet, he will have to reduce protein below the magical 1 gram per pound of bodyweight. Reducing fat won't work as it reduces the ketogenic ratio too much and will likely keep this person out of ketosis (which, as I discuss below is what I think happened to me last week. In an effort to cut calories, I reduced fat intake which lowered my ketogenic ratio. Hence, I dropped out of ketosis.). The question (which I don't have the answer to) is how little protein can we consume on a ketogenic diet (assuming high quality sources here) without losing mass. We know that the state of ketosis is protein sparing in and of itself but by how much? Anyone out there have the answer to this?

Lyle McDonald, CSCS

 The body composition record:

Day	Date	Weight	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	4/31	156					15.4%	24	132*	
Mon	5/6	153					13.6%	21	132*	
Mon	5/13	154	7	27	18	8	42	12.2%	18.8	135.2
Mon	5/20	151	6	27	17.5	9	42	12.2%	18.4	132.6
Mon	5/27	154	5	24	18	8.5	37.5	10.4%	16	138
Mon	6/3	149	5	25.5	15.5	8	38.5	10.4%	15.5	133.5
Mon	6/10	155	5	26	16	8	39	11.3%	17.5?	137.5
Mon	6/17	149	5	25	16	8	38	11.3%	16.8	132.2

* These two measurement were taken with the one site home calipers. Therefore, they may or may not be directly comparable to the other measures.

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

Ok, the trend is moving downward again. I've decided that it's time to get serious and make the final push. I've simply accepted that morning temp is not coming back up at this point (hanging tight at a still anemic 97.0) so I've decided to just screw it. The goal is to achieve 7% bodyfat by the end of week 10 which gives me three weeks to lose 6 lbs. I will be cutting calories to 1500 per day this week to monitor results. If necessary (and I hope it's not), I will cut them farther in week 9 and 10. Also, I plan to do a rather voluminous amount of exceedingly low intensity cardio to burn ketone calories. Hey, maybe I'll even start eating healthier during the carb-ups. Nah, probably won't happen. About the only way I can stick to this diet is if I know that I can have my sucrose on the weekends. Donuts. Yumm.

My week at a glance:

Sunday: Went for a 25 mile bike ride to burn some glycogen. Back to low carb today.

Monday: Ate 1500 calories today. My diet was:

Breakfast: string cheese, 5 sticks (350 calories)

Lunch 1: pink salmon in mayo (approx. 420 calories)

Lunch 2: the other half of my salmon (420 calories)

Dinner: whey protein pudding in heavy cream (350 calories)

Also had some sugar free Jell-O with whipped cream for dessert.

Supplements: back on ECA at 50mg ephedrine, 200 mg caff, 81 mg aspirin, 1 gram tyrosine, 8 mg Yohimbe Fuel in addition to my normal supps. (vanadyl, chromium, anti-oxidants, etc.) Took 2 doses per day as the third typically keeps me up all night.

Workout: My ex-girlfriend has decided to try this diet to see what happens so we trained together. Having learned my damn lesson last week, I went back to the basics and trained legs, back, and biceps today. Started with 10' cardio and ended with 10' cardio.

The workout looked like this:

Squat: 2 warm-ups, 2 sets of 8-10 to failure, 1 set of 20-25

Leg curl: 1 warm-up, 2 sets of 8-10, 1 set of 20-25

Calf raise: 1 warm-up, 2 sets of 8-10, 1 set 20-25 (getting the pattern yet).

Chins, Seated row, Shrugs, Bicep curl

Here's the theory: We want to stimulate an anabolic response with this workout. But, we also want to burn out glycogen and blood glucose to achieve ketosis again. Sets of 6-10 stimulate growth. Sets of 20-25 burn glycogen (i.e. the depletion workout). So, ask I, why not just combine the two for best results? I'm in trace ketosis

as of tonight (48 hours from stopping carbs) which gives my 4 full days to burn ketones. My ex is not taking any of the glucose disposal agents and I'll be interested to see if she hits ketosis tomorrow after the workout (she did the same thing as I did, just with lighter weights). Tomorrow is chest, delts, tris, and abs.

Tuesday: I'm back out of ketosis out of this morning (wondering it last night's trace reading was just wishful thinking). Did some light cardio (30') this morning after training my clients. I've been thinking about my problems last week with ketosis and my inability (as of 12pm, no ketones) this week to enter ketosis and I think I figured it out. Looking back over my diet this week (see Monday diet) and last, I think I was eating too little fat and too much protein. Recall my discussion of ketogenic ratios above from the Epilepsy Diet Treatment book. They use a ratio of 4:1 to induce ketosis which is a 90% fat diet (not much room for protein). Duchaine/Pasquale recommend a 75% fat diet which works out (when you do the math) to about 1.5 grams of fat per gram of protein. While this ratio may be a bit low, consider that the kiddies are not performing regular exercise, which also helps to keep blood glucose down. And, they want deep, deep ketosis to prevent seizures. We are simply looking for ketosis is general (i.e. trace is enough). Looking at my diet, I have been at about a 1:1 ratio of fat to protein (really negligible carbs) which I think was the problem. I recall playing around with this last week.

While in ketosis, I ate a couple of meals with a 1:1 ratio of fat:protein and, testing for ketones later, showed lowered amounts. The upshot being that you cannot cut fat intake on this diet or you will really screw yourself (interestingly, my friend BK who has problems getting into ketosis regularly is eating about a 1:1 fat:pro ratio. When we bump his fat intake up, he gets into ketosis. The problem being that we can't be sure if the ketones are coming from body fat (good) or dietary fat (neutral)). The other upshot of having to keep this ratio at 1.5:1 or higher being that 1500 calories is NOT a lot of food since most of it is fat.

At 25% pro and 75% fat, it works out to:

$1500 * .75 = 1125$ calories of fat / 9 cal/gram = 125 grams fat.

$1500 * .25 = 375$ calories protein / 4 cal/gram = 93 grams protein.

I've got 132 lbs. of lean mass, which is 60 kg. 93 grams of protein is only 1.5 grams protein/kg which I hope is sufficient (hell, it's more than I used to eat doing high carbs with maintenance calories). So, to balance things out today, I consumed:

Breakfast: 3 cheese sticks (5 gram pro, 5 gram fat each) and 2Tbsp cream cheese (2 grams pro, 10 grams fat): Total 17 grams protein, 25 grams fat which barely makes a 1.5:1 ratio.

Lunch 1 and 2: 1 cup of pink salmon (about 1/2 the can) with 4 TBSP mayo total (Salmon = 360 cal, 48 pro, 20 fat ; Mayo = 400 cal,

44 fat ; Total = 760 cal, 48 pro, 64 fat which is just shy of a 1.5:1 ratio)

Dinner: 1 scoop designer (18 grams pro) with 1 Tbsp. olive oil and 1 Tbsp. flax oil (28 grams total). Right at a 1.5:1 ratio.

Alternately, I'll have Designer pudding with 6 TBSP of heavy cream (30 grams of fat) and 1 scoop Designer (18 grams pro). Basically interchangeable meals.

Dessert: 1 cup sugar free Jell-O with dairy free whipped cream (essentially zero calories). This really helps psychologically and adds negligible calories to the diet.

Like I said, not a lot of food. But, for cut abs, I can just deal with it and quite whining so damn much, right? If it were easy to reach physical perfection (not that I'm anywhere close), everyone would be doing it. It's a good thing that ECA blunts hunger during the day. The evening will just have to be sheer willpower. And I do get to binge for 24 hours this weekend so it's not so bad. I wonder where I can get some of those cool appetite suppressants Dan talked about.

Oh, one other thing, I finally checked on insulin and the PDR shows it as an OTC (over the counter) drug which means no prescriptions. And, the city where I live does not require prescriptions for needles so I could conceivably go to the pharmacy and get some today (insulin is not that expensive either. I don't know how much needles run). I debated this for a while today and decided against this route for now. Here's why: Duchaine has gone out of his way to develop a dietary approach to achieve low bodyfat levels with no muscle loss without the use of drugs. That is the whole point of Bodyopus, right? Yes, he included the chapter on thyroid and the other dieting drugs for completeness but he does comment that everyone will draw their own line as to how much they will/will not use of that stuff. I drew the line at thyroid meds. Some might use thyroid but not use insulin. It's a personal choice. Bodyopus will work fine without that other stuff, but the other stuff will likely make the diet easier. In any case, my decision not to use insulin right now is based on two things:

1. I want to prove (at least to myself) that the diet can work without breaking any laws (ok, insulin isn't a prescription item and I wouldn't technically be breaking the law but you know what I mean) as many won't be willing to do that. Also, many simply object on principle to the 'frivolous' use of drugs like thyroid or insulin if you're not medically diagnosed with a problem. This can be debated until the cows come home but no one will win. If you want to get in shape 'at any cost', use all the drugs and crap. If not, you need to know that Bodyopus can work without all that stuff.
2. I want to prove to myself that I can get into shape without resorting to those things. This is simply a personal hang-up which you may or may not share. Sorry, but it's time for the sob story: I was a fat little kid (fat parents, no exercise, the whole deal) and always caught shit from the jock boys in high school. Now things are turned around: they

are all getting fat and losing their hair and I'm the jock with a pony tail (can't wait for that 10 year reunion in a couple of years). I've always aspired to having cut abs but could never get anywhere close with high carb dieting. I had basically given up all hope until I came across Bodyopus (geez, that sounds like a infomercial doesn't it? Only 3 easy payments of \$29.95 if you order now...).

IAE, getting in shape naturally (something I've never been able to do in the past) would be a major achievement for me. Sure, I'll never be a bodybuilder or much of an athlete. But, to achieve something (in this case, ripped abs) that I've never had anywhere even near my grasp without resorting to a crutch like insulin or cytomel or lipsusuction or whatever would mean more than simply the possession of ripped abs. That is, I've got to prove to myself that I've got what it takes (willpower? determination?) to do this naturally before I can resort to drugs or whatever. Also, as a personal trainer, I have to know how to get my people in shape without resorting to potentially dangerous drugs as most if not all of my clients would be hesitant to use them. Hence, the 'natural' Bodyopus experience. Does this make sense or does the end justify the means in this case? Opinions?

(Ok, here's the 'real' reason I decided not to use insulin yet: I'm a chicken shit. Not that needles scare me as I've sat in front of that stupid glucometer at various times. But, insulin can be downright fatal if you're not careful. And I can't afford to die when I haven't gotten laid in such a long time.)

Oh, one last thing, note that above I frequently added the rider "not yet" in regards to using insulin. I plan ('come hell or high water' as we say in the south) to be at 7% bodyfat by the end of week 10. That is the official end of the 'diet' phase (i.e. the goal being loss of bodyfat) of my Bodyopus experience. At that point, I will concentrate on adding muscle to my rather wimpy frame (hell, maybe I'll even enter the new MM2K "Best Shape of Your Life" contest and win a year's supply of some supplement I don't need/won't use). I'm not sure if I'll use a ketogenic diet as I don't know if I can eat that many calories of fat and protein. But, I might. In which case, short term insulin use may be of benefit for carb loading and stimulating anabolism, etc. Again, week 10 is the end of my official dieting (and, sob, the end of my boring the hell out of you with these weekly updates. I may do occasional updates if I find anything interesting out about the diet or ways to tweak it but writing this every week does take a lot of time). At that point, I'll have proved:

1. That Bodyopus works as promised at least for me.

and

2. That I *can* get in shape if I put my mind to it.

With those things accomplished, the end will justify the means (although I still won't use any illegal drugs like steroids) as far as packing on muscle. If that means risking it all with insulin, I can deal with it (and, don't worry, I'll do my homework on how to keep from killing myself before I take my first shot. To refrain last week, "I may be dumb, but I'm not stupid." Or how about "I may be dumb and I *am* stupid but I'm not recklessly insane.")

Ok, back to the topic at hand. Lifted again tonight with the ex. It's nice to have a partner. She's stubbornly tenacious, the kind of person who I can motivate by saying "I bet you can't do 100 reps with that weight" and I'd come back 3 hours later and she'd be on number 87. That's why she gets in shape so much faster than I do. She forces me to push harder than I push myself (got to try to impress her, right). IAE, tonight was chest, delts, tris and abs (same format as yesterday: two warm-ups, two work sets, and one set of 20-25 to deplete glycogen). I'll be interested to see if she's in ketosis by tomorrow morning considering she's been on 1200 calories of protein and fat (which is hard for her as she's a vegetarian). Followed with 10' of cardio on the bike.

I was not in ketosis after workout but re-entered about 20' later (assuming I burned off any 'extra' ketones training).

Wednesday: I'm in fairly deep ketosis this morning after waking up. Which is good because ketone build-up overnight has to be coming from body fat. Just gonna pee that abdominal fat off my body if I have to. Today is just cardio at low intensity/moderate volume to burn ketones and will consume the 1500 calories same as yesterday. Also, up to 3 doses ECA. But, I dropped the tyrosine just in case it is a glucogenic amino acid (I suppose I *could* look it up but, until I do, I'm not taking any chances) which might keep me out of ketosis. (FYI, individual amino acids can be either glucogenic meaning they can convert to glucose, or ketogenic and can convert to ketones).

Oh, yeah, talked to the ex today. In addition to being hellishly sore from the workouts I put her through (Ha! Break up with me...), she is already in ketosis based only on the two workouts (which took about 45' apiece) above, no additional cardio and approximately 1200 calories per day. This brings up two things I've mentioned before:

1. It may be useful to do some high rep sets early in the week to hasten the descent into ketosis. My ex was the control subject I needed as, unlike me, she won't go out of her way to do extra cardio. Just weights and calorie regulation like Dan intended.
2. Using things like vanadyl and other blood glucose disposal agents (which she is not as she can't afford them) doesn't seem necessary

to get into ketosis. Might they speed up the descent a bit? Sure. But, are they critical? I would have to conclude not. I guess this comes down to how quickly you need to get into shape. For the pre-contest bodybuilder with a time frame to get into shape, the use of glucose disposal agents to enter ketosis as fast as possible is probably warranted. For the rest of us.....

Finally, in the spirit of completeness, I did a blood glucose check this morning as I was in ketosis. For the first time since I've checked, it showed me below 70 mg/dl giving a value of 62.

Which raises two questions:

1. Do you really have to get blood glucose to 50 to enter ketosis?
or
2. Is there just too much inaccuracy in the glucometers to make them useful on this diet?

Oh, yeah, did 30' of light cardio with the ex tonight to burn some ketones. She's going through that first week feel like shit phase as she adapts but she's hanging in there.

Thursday: Did a light 30' walk before breakfast to burn some more ketone calories. Bodyweight is the lowest it's been since about week 3 (145) and I feel/look noticeably tighter (the gauge I use sometimes is the amount of fat in my lower back area. When that starts to get tight, I'm know starting to lose fat again). I may try cutting calories a bit lower today but am not sure I can make it on anything less than 1500. I was right. Stuck at 1500 calories (still damn low) and ate some extra Jell-O and celery (no, not together) to help with the hunger. The carb-up is so close I can just taste all that yummy sucrose.

Friday: Here's the tabulated Friday changes in bodyfat:

Day	Date	Weight	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Fri	5/17	145	8	27	18	8	41	12.2%	17.7	129
Fri	5/24	144	5	24	19	8	37	10.4%	15	129
Fri	5/31	146	5	24.5	17	8	37	10.4%	15.1	130.9
Fri	6/7	146	5	25.5	15.5	7.5	38	11.3%	16.5	129.5
Fri	6/14	146	5.5	25	16	8	38.5	11.3%	16.5	129.5
Fri	6/21	144	5	24	13.5	8	37	10.4%	14.9	129.1

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

Alright! Back on track at last. I noted with interest the big change in the suprailiac measure even if abdominals didn't come down too much (although, it's back to the lowest it's been at any point during the last 8 weeks). This simply tells me that my abs are going to be the last place to shape up for me. The 1500 calories/day seems to be working and I plan to stay there next week or maybe cut by another 100 calories per day (1 cheese stick) or something. Now I just gotta try to get psyched for the depletion workout.

The workout: The ex and I made it through 45' of high rep circuit training (the gym was closing) for the depletion workout and then the grand pig out started.

Saturday: Nothing exciting to report here. Just your basic junk food carb day. However, I did not take HCA on schedule and it made a big difference in how much I ate. I definitely feel like I spilled over some water and maybe fat without it. Whoops. Went for a 30' in-line skate to try to do some damage control. If you're not following Dan's specific recomposition guidelines, I highly recommend HCA to keep you from overeating/spilling over.

Sunday: Went for a long mountain bike ride with a friend in the heat and I am drained as hell. Although the plan was to stop carbing at the 30 hour mark last night, I did have some more carbs after the ride so I wouldn't be too depleted to train legs tomorrow. I can definitely see the difference without the HCA vs. last week. Last week I looked lean and filled, this week I just look water retentive and bloated. Won't make that mistake again.

Next week: Got a couple more ponderings to share with you before this 10 week experiment comes to an end. I'd put 'em in this update but it's already too long.

Lyle McDonald

**Subject: My next to last Bodyopus experience.week 9
(very long)**

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Date: 1996/06/30

The final ponderings (got something else in store as a prelude to the week 10 update):

1. This question has come up a few times in email so I thought I'd address it here. Anyone following these things has probably noticed a big tendency for spillover to fat cells during the weekend carbo-binge. Hence, some have asked, why not just stay in ketosis (i.e. Atkins dieting) until fat loss goals are met and forget the carb-up. I can think of two compelling reasons to include a weekly carb-up:

a. According to Duchaine, the carb-up is necessary to rebuild any muscle that may have been lost during the week due to higher systemic levels of cortisol and glucagon (assuming it makes it out of the liver). This is the primary difference between Bodyopus and other low-carb diets (or any diet for that matter): the weekend carb-up gives a concomitant anabolic response to short-circuit any muscle catabolism that might be occurring. To the contrary, according to Krabbe, this is not the case assuming you're lifting heavy enough. He doesn't feel that muscle will be lost regardless of the length in ketosis.

b. Psychologically, I would have trouble sticking with no carbs for longer than 6 days. Don't get me wrong, I probably *could* do it if I really put my mind to it. But, and this gets into my own personal dieting theory, any diet that forever restricts any one type of food is a recipe for disaster. The short time I spent on the low-carb mailing list pointed this out rather painfully to me. What happens to strict low-carb dieters is this (and this applies to anyone dieting whether it's low-fat or whatever)

i. go on exceedingly restrictive diet (in this case, low carb but it applies to any diet which forever restricts a given type of food)

ii. crave the foods you cannot have for no other reason than you cannot have them (i.e. you always want what you can't have)

iii. eat some of the food you cannot have (because no one has that much willpower, at least not forever)

iv. feel extreme guilt because you were too 'weak willed' to stick to your diet (this is the really silly part but it's a failing of any dietary plan)

v. eat more of the foods that you cannot have as "Anything worth doing is worth overdoing." (this quote stolen without remorse from BK)

vi. possibly derail your diet completely and not get back on it once you're off (you probably know people that this has happened to. They start on exceedingly strict diets and hardcore exercise routines only to burn out after about 2-3 weeks and quit completely. I'd rather see people find a dietary and exercise approach they can live with and

will stick to in the long term.)

(Additionally, the massive gains in water weight that occur when one carb-binges on a low carb diet simply exacerbates the feeling of failure although, as I tried to point out to the low-carb dieters to no avail, the excess weight is primarily water and glycogen and not fat. It's simply not physiologically possible to gain 5 lbs. of fat in one day as that would require a caloric intake of 20,000 calories+ over maintenance. I like to eat carbs and all but come on...).

The above pattern called the Dieter's Failure Cycle by some and I agree with it. Any diet based on long term restriction/deprivation of a given food is a recipe for failure from the outset. Personally, that is what I like about Bodyopus dieting: it's not that I can't ever eat any particular type of food again (which has not worked for me or just about anyone else in the past), it's just that I have to wait until a certain time. Just about all foods are permissible on this type of diet, just only at the proper time. Yes, I know I'd get better overall results following Duchaine's specific recomposition guidelines instead of my haphazard junk food carbing but I can live with that as it means I will more faithfully follow the low carb portion. So it takes me a couple of extra weeks to get to my goals. That's fine, I'm not in any massive hurry.

IAE, back to the point: the weekend carb-up, while possible causing me to take a step backwards every week makes it easier psychologically for me to stick with the diet. I have tried to minimise any major fat gain damage by cutting the length of the carb-up to 24-30 hours and taking HCA. I fucked up last weekend by not being organised with my supplements and ended up paying the price for it. But, that was the fault of the dieter, NOT the diet.

c. Thyroid upregulation: A buddy of mine has told me of research that even one 200 gram bolus of carbs can upregulate T3 levels. I definitely notice that morning temp is higher during recomposition than during the week. It does drop back to baseline rather quickly but every little bit helps when you're dieting.

2. Training structure redux: A long while back (week 4 or 5?) I discussed the suggested Bodyopus training structure and where I thought it might be modified for different goals. I felt then (and still do now) that the high rep workout prior to recarb is really only useful for the individual looking to carb-up for a contest and I think that a heavy tension workout makes more sense, especially if you're using a ketogenic diet for muscle gain. But, that's not what I want to talk about now. If you recall, in week 7, I tried a radically different training structure from previous weeks working the hell out of two bodyparts per day. The two observations I made were:

a. I didn't get into ketosis until day 4 although I still can't be sure if

this was related to my training structure, the use of melatonin supplements, or my ketogenic ratio being too low from cutting fat calories.

b. I was sore as all hell much, much longer than when I train according to the suggested BO routine (1-2 sets of 6-8 to failure with 1-3 exercises per bodypart: more for larger muscles, less for smaller).

I want to delve a bit into observation 'b'. We know that two effects of low carb dieting are:

1. An increase in cortisol levels which is good for fat burning but bad as it may cause muscle catabolism. But, ketones blunt catabolism so it may be a wash as far as overall effects.
2. Longer duration soreness since there aren't any carbs to repair damaged muscle fibers.

My question is this: on a ketogenic diet (moreso when total calories are restricted as in Bodyopus), should one use a lower training volume than while on high carb diet. Yes, testosterone is supposedly higher with the higher fat intake but, then again, so is cortisol. So, the question is what is happening to the testosterone/cortisol ratio (a rough indicator of the overall anabolic or catabolic state of the body). It would be interesting to get a free test and free cortisol assay done while both high carb and low carb dieting to see if there are any overall shifts in the T/C ratio. I sent email to Coach Charles Poliquin with that very question but have yet to receive an answer. Any of you biochem buffs out there have an opinion on this?

 The body composition record:

Day	Date	Weight	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	4/31	156					15.4%	24	132*	
Mon	5/6	153					13.6%	21	132*	
Mon	5/13	154	7	27	18	8	42	12.2%	18.8	135.2
Mon	5/20	151	6	27	17.5	9	42	12.2%	18.4	132.6
Mon	5/27	154	5	24	18	8.5	37.5	10.4%	16	138
Mon	6/3	149	5	25.5	15.5	8	38.5	10.4%	15.5	133.5
Mon	6/10	155	5	26	16	8	39	11.3%	17.5?	137.5
Mon	6/17	149	5	25	16	8	38	11.3%	16.8	132.2
Mon	6/24	153	5	24	13.5	7.5	37.5	10.4%	15.9	137.1

* These two measurement were taken with the one site home calipers. Therefore, they may or may not be directly comparable to the other measures.

Key:

BF% = body fat percentage
FM = fat mass in lbs.
FFM = fat free mass (total weight - FM)

Well, due to my massive screwup forgetting to take HCA this past weekend, it looks like I had some spillover from Friday (though, as mentioned a couple of weeks ago), I'm still not sure if comparing Friday and Monday measurements is all that accurate. IAE, fat mass is down a full pound from last Monday which is a move in the right direction. Down to the final 2 weeks so no more mistakes like this can happen. Shooting for about 1450 calories or so and going to do more low intensity cardio than last week to make that final push. I'm not sure if 7% bodyfat is in my grasp in the next 2 weeks but you never know what will happen.

My week at a glance:

Sunday: As stated, did about 1.5 hours of mountain biking in the heat and stopped carb-ing about 1pm in the afternoon. Didn't keep track of calories today but will be from here on out.

Monday: Started the day with a one hour walk outside to stretch my legs, burn some calories (hopefully fat) and start making the move into ketosis. I hope to be there by tonight after lifting. I'd have lifted this morning but I have early personal training appointments which throws a wrench into everything.

Supplements: Same as always, 3 doses of ECA, 3 Yohimbe fuel, multi-vitamins, etc.

Workout: Same workout as last week since it worked well for getting both me and the ex into ketosis. I pretty much maintained my workout levels neither gaining nor losing which is not horribly surprising considering that:

1. This is week 9 of this diet and I'm most likely overtrained. I plan to take a week to chill out after week 10 before I attempt a mass gaining phase.
 2. My low calories last week. If I can maintain my strength levels (which I take as indicative of lean mass maintenance) over the next two weeks, I'll be very happy.
- The ex got stronger in almost every movement which was also not horribly surprising. She hasn't been working out for a while and will likely see some quick and dirty strength gains over the next few weeks.

Tuesday: I'm not in ketosis yet which is strange. However, recall that my carb-up did last until about 1pm Sunday and the quickest I've ever made it is about 48 hours following cessation of carbs. So, I'm looking at 12pm today to enter ketosis. Did another 30' easy walk this morning before breakfast to burn some calories and further lower blood sugar.

Oh yeah, bodyweight is down from 153 to 149 today if that gives you any indication how much extra water I was holding.

Well, in the spirit of experimentation, I did the following. One question that's been on my mind is how much/how intense of cardio will get you into ketosis quickly. So, I figured it was high time to find out. I'm making two assumptions that may or may not be correct:

1. Blood glucose has to get below 60 to start making ketones. Recall that I've been in ketosis and my glucometer showed a BG of 63.
2. My One Touch glucometer is accurate enough to tell me anything useful. A very big assumption based on past experience.

Here was today's experiment:

Pre-cardio: Ketones: negative, Blood glucose: 86 (not sure why it's still this high, might be related to high levels of liver glycogen which are still dumping glucose into the bloodstream, gotta get the liver emptied completely to get into ketosis)

Workout: 5' warm-up, 20' at 70% of max (about 150 heart rate), 5' cool down

Post cardio: Ketones: still negative, Blood glucose: 72. So, if this is accurate, 20' at a relatively high intensity dropped BG by 14 points.

A question that I didn't have time to answer today was whether another 20' of cardio would have dropped it a further 14 points to 58 and ketone land. An experiment for another day.

One hour post cardio (I wanted to check for any blood glucose rebound which would indicate a still glycogenated liver): BG = 83. Very strange things afoot here. But, looking back over last week's record, it did take me until Wednesday morning to get into ketosis. It would surely help if I could lift in the mornings to get rid of some blood glucose but that's just not something my schedule allows me to do right now short of getting up at 5:30 am to lift which I am not going to do.

Workout: Chest, delts, tris, abs again same format as last week (2 warm-ups, 2 sets of 6-8, one set of 20-25). Started with 10' cardio and ended with 10' cardio. Just for grins, I checked blood glucose before and after to see what kind of drop this workout caused.

Pre-workout BG: 71

Post workout BG: 64

So, it's inching down at last and I hope to be in ketosis by tomorrow morning then it's cardio, cardio, and more cardio until I can't stand it anymore. And the more cardio. Just at really low intensities.

Wednesday: Ok, after much pondering (ponder, ponder) and discussions with Jeff Krabbe, here's what is going to happen from here on out:

My plan was to finish the 10 week diet cycle next weekend which is July 4th. The problem is that I will be going out of town in the middle of the week which will screw up both dieting and activity levels. So, if I'm to come anywhere close to reaching my body fat goals, some changes will have to be made. Despite my ponderings in the prologue, Jeff assures me that muscle loss is not anything to worry about while

in ketosis. I'm going to have to trust him on this one and hope he's right. Considering this, I've decided to forego carb-ing this next weekend at all. This will give me almost 10 full days in ketosis as I will most certainly be carb-ing next weekend as I visit with my relatives for the 4th. On top of this, I will be combining a rather severe caloric restriction (again, hoping that the ECA stack plus the anti-catabolic effects of ketosis will prevent any muscle loss) with lots of cardio and every legal thermogenic/diet trick in the book. Today is a good example of how things will be run for the next 10 days. (For the record, I don't recommend this to other Bodyopus dieters at least not until I've evaluated the results for myself. It's entirely possible that I will lose muscle during the next 10 days. It's entirely possible that I will screw myself up royally with all the things I'm going to combine together. But, I'm the only one at risk here. I repeat: Do NOT try this at home.) With that in mind, here's how today went:

Ketones: Trace as of this morning. Finally.

Wake-up at 6am: 50 mg eph, 200 mg caff, 81 mg asp, 1 tab Yohimbe
do 1 hour of cardio at 70% of max (150 HR)

8 am: Breakfast: 2 cheese sticks with 2 TBSP cream cheese: 200 calories plus 2 capsules Nature's Way Cayenne capsules (another thermogenic product suggested by Jeff. He's using it instead of the ECA stack. Being the psycho I am, I'm using it *in addition to* the stack. Grog only knows what I'm doing to my thyroid levels).

10: 30 am: another dose of ECA on an empty stomach

12: pm: Lunch: 1/2 Cup salmon with 2T mayo: 340 calories + 2 more capsules of Cayenne + Yohimbe fuel

2:30 pm: last dose of ECA on an empty stomach

7pm: 30 minutes more cardio

9pm: Dinner: 1 scoop Designer with 2 T oil (1 olive, 1 flax): 350 calories + last 2 capsules of Cayenne + Yohimbe fuel

Total calories: 890

I want to try and estimate what the potential fat/weight loss from the above regimen might be (assuming I can stick with it for the next 10 days).

Let's put my overall caloric requirements (BMR+incidental activity) at 1800 calories per day (or about 12XBW).

Figure a 10-20% increase in calories burned from thermogenic aids.

So, $1800 + (1800 * .2) = 2160$ calories per day.

Figure added cardio activity at about 750 calories per day (assuming 90 minutes total/day at relatively low intensities) gives

$2160 + 750 = 2910$ calories per day expended.

At 900 calories of food, that is a 2000 calorie per day deficit. But, figure in an additional deficit of 23% for inefficient ketone to calorie conversion (7 cal per gram of ketones/9 cal per gram of fat=.23). So, $2000 + (2000 * .23) = 2460$ calories per day total deficit.

It takes a caloric deficit of 3500 calories to lose one pound of fat. That yields a deficit of $2460/3500 = .7$ lbs. per day fat loss if total loss is coming 100% from fat stores. Across the next 10 days, that should yield a fat loss of 7 lbs. Which, if it really happens, would put me at 9 lbs. of fat/~143 total lbs. = ~6.2% bodyfat. That would be more fat loss in 10 days than I've achieved in the last 8 weeks (or damn close). Is this even physiologically/biochemically/thermodynamically possible?

Something tells me it's not going to work out quite that nicely but we shall see.

In moderately deep ketosis as of tonight. Which is strange considering my low calories and high activity levels. Dan has written that this will typically lower ketones in the urine but I've always found the exact opposite to be true (i.e. high activity plus lowered calories gives me more ketones in my urine). Since calories are so low, I take this to mean that my body is mobilising body fat to produce the ketones which is a good thing.

Thursday: Went for an hour walk this morning pre breakfast. Too my ECA stack + Yohimbe and added 500 mg of HCA to the stack and will be adding L-carnitine as well. This is based on a paper I came across earlier this week suggesting that pre-breakfast cardio + caffeine plus citrimax and l-carnitine would theoretically increase fat oxidation during exercise.

Ref: McCarthy MF "Optimising exercise for fat loss." Medical Hypotheses 44(5): 325-30, 1995 May.

Looking in the mirror today, I look noticeably leaner than earlier this week. If I pose very hard, I can see a 4.5 pack (I've got that Boyer Coe fat lower ab thing going). Also, I've got my first sign of vascularity on my left side between my rectus abdominus and my rapidly declining love handles. Weight has dropped to 143 as of this morning and I look and feel very flat muscle wise. Which is to be expected since I'm very carb depleted. I've decided to do a heavy, full body tension workout tomorrow instead of the depletion workout since I won't be carbing. The goal being to maintain muscle mass in the face of extremely lowered caloric intake.

Another 30' of cardio tonight with the ex. Ran a quick body comp tonight. BW=144. Sum 3 skinfolds = 34. BF% = 9.4%. Fat mass= 13.5 lbs. LBM = 130.5. So far so good.

Friday: Here's the tabulated Friday changes in bodyfat:

Day	Date	Weight	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM

Fri 5/17	145	8	27	18	8	41	12.2%	17.7	129
Fri 5/24	144	5	24	19	8	37	10.4%	15	129
Fri 5/31	146	5	24.5	17	8	37	10.4%	15.1	130.9
Fri 6/7	146	5	25.5	15.5	7.5	38	11.3%	16.5	129.5
Fri 6/14	146	5.5	25	16	8	38.5	11.3%	16.5	129.5
Fri 6/21	144	5	24	13.5	8	37	10.4%	14.9	129.1
Fri 6/28	143	5	22	11.5	7	34	9.4%	13.4	129.6

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

Notes: Cool! Cool! COOL! Bodyfat is on the way down to the cellar and it looks like the severe protocol outlined above is working to some degree. And, lean body mass hasn't dropped any more than usual which is also good. Body temp was 97 this morning so it's holding steady. Time to go do that morning cardio. Tell me if you think the following is the ultimate pre-cardio stack or what:

Ephedrine: 50 mg

caffeine: 200 mg

aspirin: 81 mg

l-tyrosine: 1 gram (since I'm in ketosis, I'm not worried about getting kicked out)

HCA: 500 mg

L-carnitine: 2 grams

Cayenne: 80,000 heat units (2 caps Nature's Way Cayenne)

Yes, a handful of pills but that's cool if it works. Again, I do NOT recommend this to anyone else out there. Yet. Oh, yeah, did one hour of easy walking pre breakfast after dropping the stack from hell.

The workout: Like I wrote above, I decided to make today a heavy tension workout. I essentially have a 'contest' in the form of a 4th of July party next Thursday so I'm following Dan's pre-contest training (more or less) until then. Now, I wanted to make sure tonight was a good workout and I recalled reading an article in MD a while back by Fred Hatfield about his experience with the WBF and Anabolic diet where Pasquale had them take in 200 calories of high GI carbs before training. It's from a 1995 issue so I'm glad for once that I never throw anything away. IAE, I figured I'd do it to try to increase anabolic drive and give me enough energy to get through the workout. Here's how the protocol looked:

Initial blood glucose measurement = 62. I am in ketosis at this blood sugar level.

30' prior to workout: drank 1 cup grape juice (41 grams carbs) + 1 scoop designer with 50 mg VS, 200 mcg CP, 250 mg magnesium. If I didn't get sick at my stomach from it, I would have added some creatine monohydrate to this.

Blood glucose at 20' mark at gym = 95 (big spike). I got some funny looks from a guy in the bathroom while I was doing the blood drop thing. It's kind of a good thing there is a bodybuilding contest coming up as it means there are lots of pre-contest guys doing weird shit at World Gym where I train. Even though I'm skinny as shit (maybe a super lightweight), my weird ass training methods and stuff look normal relative to what everyone else is doing. Like I give a flying fuck what anyone thinks of my training and eating patterns anyhow. And, yes, the lack of carbs/calories is making me pissy and irritable. I'm going to have to be very careful that I don't snap at any of my clients this next week. 10 days of no carbs, 900 calories of food, and too much cardio make Lyle a dull boy. I'm just trying to muddle through the days at this point without killing anyone. I can seriously understand what pre-contest bodybuilders go through after this week. (you hear that kcory@bright.com?)

Anyway...

At the gym:

Warmup: 5' on bike

(Note: All heavy sets were taken to failure.)

Squat: 2 warmups, 2X8 (2' rest between sets)

Leg curl: 1 warmup, 1X10 (1' rest between sets of all other exercises)

Incline bench: 1 warmup, 1X8

Row: 1 warmup, 1X8

Shoulder press: 1X8

Assisted chin: 1X8

Tri pushdown: 1X8

Machine curl: 1X8

(Note: I used the exact same weights as on Mon/Tue heavy workouts and managed essentially the same reps (I might have dropped 1 rep here or there) which suggests to me that the carbs before workout helped and that I haven't lost any muscle with the severe dieting.)

I followed the above with 1 set of 20-25 of each exercise in a circuit format with about 50% of the weight used in the above work sets. Finished with 20' light cardio on bike (HR about 130 but it's falsely elevated after weight training).

Blood glucose after workout = 63

At home: back in ketosis. No problems.

Friday night: Tonight I was weak. Since I've been having trouble sleeping, I've started eating 1/2 a raisin muffin (about 70 calories and 14 grams of carbs) to get just enough of a serotonin pulse to put me to sleep. Well, my mom has some friends staying and bought this raising bread with frosting on it (see where this is going?). Well, once I got the taste of carbs in my mouth from the muffin, I lost it. 3 pieces of raisin bread later... Unfortunately, one of mom's friends was staying in my room so I couldn't get to my vanadyl and chromium to do damage control and just had to face the consequences.

Saturday: Well, I'm just barely, barely (like if I hold the ketostix in the right light) showing ketones and blood sugar reading shows 57. Which I find strange since I rarely get that low even in deep ketosis. Took 50 mg vanadyl with 200 mcg chromium and 250 mg magnesium along with the thermogenic stack and went walking for 30 minutes. At work (grog I hate Saturday appointments) I measured BF% with the real Lange calipers and they put me at 8.5% bodyfat so they are consistently lower than my Slimguide by about 4 mm (30 mm with Lange vs. 34 with my Slimguide). I'll be figuring in the 4mm adjustment from here on out. Still, this means I'm still on track. Abs are just starting to come through (ab skinfold is still the largest at about 20mm. Zero subcutaneous fat is a measurement of about 3-4 mm. Something tells me I'm not going to get there by Thursday but 7% would be damn good. 7.6% BF is a sum of 26-28 mm. 6.6% is 23-25 mm. So, figure 7% is right at 26. A further loss of 4 mm (which should mostly happen at the iliac and abs as there's really nothing left to lose at pec or thigh) would be quite nice. If it can be done.

Started tanning today. Since it's so frigging hot in Nashville, I started with a mere 10' on each side to avoid burning. To be honest, I don't burn (I'm one of those swarthy middle easterners) anyway but I'm not taking any chances. I will be gradually increasing my tanning time over the next few days. Thing is, I have to balance out a horrible cyclist's tan (meaning my legs are tan from above the knee to above the ankles and my arms are tan from below my shirt sleeve to my wrist) so I may or may not need longer tanning times. I'll just play with it as I go along. Gonna start reducing sodium (not that I get much anyway) and will most likely potassium load on Wednesday. Also going to increase water intake. Finally, I have to decide what to do about all this damn body hair. My legs are already shaved (which look goofy since the rest of me is pretty damn hairy) and I typically keep my chest trim with hair clippers. I did shave my whole body once for a girlfriend but it was a major pain in the ass and I can't get at my back. I'd consider waxing but a whole body wax would hurt so much I can't even imagine it. Have to think about this one some more.

In order to scare everyone on m.f.w (and have an official record of my

one day of physical perfection), I'm going to make sure and get a good picture of myself looking pumped and lean on Thursday or Friday. Then, I will upload it as a JPEG to m.f.w if that's ok with everyone. Just remember, if you don't want to see it, don't download it. I wish I had had the sense to take a before picture to compare with. Especially since Dan has approached me about publishing the BO diaries. Would have been nice to show Fat Lyle at week 1 and Lean Lyle at week 10.

Saturday night: I'm hungry. Dieting sucks. But, only 3 more days of this crap. I did increase calories a bit (about 100 calories) with an extra 2TBSP of cream cheese. Also, I found a great snack in raw cucumbers with salt on it. Of course, come Tuesday or so, I'll have to drop the salt to start reducing sodium intake. Oh, the inhumanity of it all. Sitting at home tonight watching TV instead of being at the gym doing cardio (it's closed) isn't helping. Being at home is a great big food trigger for me. So, I'm going to go skate around the city for a bit. Thinking about getting my nipples pierced (seriously) again. I have thought about it before but I'm not sure that I should do something that rash while in the throes of low calorie, low carb dieting delirium. Did I mention how hungry I was?

Ok, I had enough. Had 3 cheese sticks (150 calories) and some cream cheese (100 calories more) and decided not to go skating since my legs are so damn sore. This is the last time I increase calories until I carb up on Wednesday (the total was still probably only around 1200-1300 anyway which is still a major deficit. I needed this little boost to get me through the next three days. Going to make sure to get the fuck out of the house tomorrow so I won't be so triggered to eat. Mon and Tue will be cakewalks food wise as I have clients to torture, er, train and won't have time to think/worry about it.

Late last night: Well, after going to the store to get last minute supplies, I decided to try my late night carb experiment again. Had some of that killer raisen bread (again, more for psychological peace of mind than anything else). Sadly, this morning I'm back to no ketones. Took 50 mg vanadyl, 400 mcg chromium, and 500 mg magnesium to get back in.

Sunday: Ok 3 days to crunch time so I have to figure just how much fat I need to lose by Wednesday when I start carbong to reach my goals. Body weight is 144 lbs. BF% is 8.5% (again, using the correction factor from the Lange calipers at work). Fat mass = ~12 lbs. Lean mass is 132 lbs.

There's a handy equation you can use to determine total fat loss to reach a certain percentage bodyfat. Note: this assumes no change in lean mass over whatever period of time. Recall that adding lean

mass (by carb loading or whatever) will decrease BF% but will not decrease fat weight (see week 1 update for a more in-depth discussion).

It is: Desired weight = (lean weight/(1-goal bodyfat)). Goal bodyfat is 7. Plugging the numbers in, we have:

Desired weight = (132/ (.93)) = 142 lbs. So fat loss needed is current weight minus desired weight = 144 - 142. Assuming all weight loss is from fat stores, that would put me at 10 lbs. fat/142 lbs. = 7% BF. By the time I gain back all my lean mass (water, glycogen, and I may try creatine again). Figure 5-6 lbs. which will put me 10 lbs. fat/148 lbs. = 6.75% BF. Yeah, body.

So I need to lose 2 lbs. in the next 3 days to reach my 7% BF goal. This works out to .7 lbs. per day (which is the same as the above calculations) so I will be doing the same thing food wise and exercise wise to get there.

Dropped the stack, time to go do some morning cardio.

I skated 1.5 hours this morning with some friends. Came home. Ate some cream cheese and then went and skated again with some other people. Total of 2.5 hours of cardio today but all at low intensities. I'm tired, irritable, my feet are swollen and my breasts are tender. Let's face it, this is as close as any male will get to PMS. Really cut calories today. Only 440 total and it's 5 pm. But, I'm in ketosis and am not worried about losing muscle at this point. Continued to work on my tan moving up to 20' each side (sounds like a recipe doesn't it). Increasing water intake and starting to pay attention to sodium/potassium levels and all that fun stuff. I'm debating getting some creatine to help with my loading but, the last time I took it, it just made me sick. Still trying to figure out a way to get all this body hair off. Shaving is a pain in the ass and too short term. I'm not getting waxed (well, maybe the bikini line <G>). Anyone out there have any success with the depilatory creams like Nair and Neet? I've heard that some react badly and break out in a rash which I do not need to have happen. I guess I can try a small spot on my shoulders or something and see what happens. Anyone know how long this stuff will keep me clean and smooth?

And, that's it for week 9 update. One more and then I'm outta here at least for a little while. 6 days and counting to 'contest' time (turns out my 4th of July party is on Saturday the 6th which is good as it gives me longer to carb and look my best).

Lyle McDonald, CSCS

Subject: At last! Week 10 of the Bodyopus Experience

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Date: 1996/07/08

Alright, this is it. As mentioned in my week 8 update, this is the last weekly one I'm going to do as it concluded the dieting portion of my experiment (the next task is muscle gain). As stated in week 8, if I find out anything monumentally exciting about the diet, I'll post an update but doing this each week is taking a lot of time and I am trying to grow my personal training business. Since there's not much more for me to discuss theory or practice wise, I'll quit boring you with the hardcore physiology of the ketogenic diets and my own ponderings. Instead, I want to make some final comments about My Bodyopus Experience Weeks 1-10.

At this point, I hope I've provided some good information to anyone who's considering following a Bodyopus type diet. If you still think that ketogenic diets are a fad or unhealthy or whatever, it's your loss. I think in 5-10 years, the high fat proponents like Duchaine, Pasquale, Atkins, and Sears will probably be validated. (It's funny but, in every field there is always a generation lag between when a new idea is presented and subsequently snubbed by the mainstream and when it is finally accepted as correct. A very related example is during the early 60-70's when endurance athletes were eating lots of protein and fat. Then Costill and some others come along saying that carbs were the best bet. They got laughed at. Now carbs are king and we are making the shift back to fat and protein. The point being that the current crop of RD's and MD's seem to have forgotten past experience with close minded attitudes towards new ideas. When they die and are replaced by new individuals, the new ideas will come to the forefront. And the pattern will just keep repeating itself). Again, if you still reject ketogenic diets out of hand, it's your loss. I have neither the time nor energy to waste trying to change your mind. It worked for me and that's all I really care about at this point. It might work for you. But, unless you're willing to try it out, you will never know.

So, Lyle, was it worth it?

As I've dieted, and dieted and dieted some more, there have been lots of distractions. With dieting, there always are. When I tell people about my diet, first they look at me funny ("What do you mean you haven't had carbs for 3 days?") and then ask me why I'm doing it. I talked about why I'm putting myself through this in previous week's updates so I won't rehash that here. As Dan points out in Bodyopus, non-athletes and the non-fit can't understand why

we do what we do. And, no amount of explaining will make them understand. My mom can't understand why I'm suffering to have 7% bodyfat when I've got 8%. She's got 36% bodyfat if that's any indication. My entire family thinks I'm fucking nuts to work out like I do and eat like I do. Most of them are sedentary and fat and could never understand what I aspire to.

But, I digress. Was the hassle and inconvenience of a low-carb diet worth it? Was it fun? Well, dieting by it's very nature is not fun. This is why I get frustrated with 99% of my personal training clients. They think that a little exercise a couple times a week (which they want to be fun and enjoyable) will get them in tip top shape. Oh, if it were just that easy. To me, the end results (placing in a race, 7% bodyfat) is what's fun. Doing 30' at a heart rate of 180 every other week to prepare for races is not fun. Restricting calories and eating meat and fat for every meal is not fun. Nothing worth achieving ever is fun. Low fat dieting was never fun for me for two reasons:

1. I was always hungry.
2. I never got where I wanted to be (which was related to 1). Low carb dieting required more willpower for me than Bodyopus for reasons discussed previously.

Well, Bodyopus dieting wasn't fun either for other reasons:

1. I don't like high fat foods.
2. I'm a carbohydrate addict.

But, I was less hungry and I did get where I wanted to be so it was worth it to me. Is this diet worth it to the average person? I don't think the average person would have the patience or discipline to put themselves through the necessary dietary restriction or training program needed to get optimal results. But, then again, Bodyopus isn't aimed at the average person. It's aimed at those who want to be more than average. I started this diet at 15% which is well within the recommended range for men (under 18% is considered healthy). I felt fat at that level. I'm now right around 8-9% (not deluding myself that I'm going to hold 7% for very long the first time out). Most think that is unhealthily low. Maybe it is, maybe it isn't. I don't really care in any event. It's where I want to be. From that perspective, the diet was worth it.

Unfortunately, the written word is insufficient (even with those f-ing smileys) to convey my excitement over finally reaching my body fat goals. I am 26 years old. I can't even begin to tell you how long I have yearned for low bodyfat and cut abdominals. And, no I may not have made it quite to my goals of 7% but I got a lot closer than I've ver been. This is the first time in fact that I've even been able to attain single digit bodyfat and I feel that cut abs (or at least close enough to make this

experience worthwhile) are within my reach for the first time in my life. Some of you can probably relate to this, many of you possibly cannot. It's like the first time you benched 315. Or squatted 405 for a full repetition. It's an achievement that only a small percentage of people can relate to much less understand. That's what makes athletes different from everyone else IMO: they are willing (well, most of them) to do what it takes to get the job done. They may endure ridicule, criticism, and any number of distractions from their goal, usually from people who don't have what it takes themselves (i.e. there's no better way to deal with your own mediocrity than to pull those around you down into it).

Finally, I want to thank some people out there. I've gotten lots of mail (mostly good but a couple of negative items) over the past 10 weeks. Either from people asking for clarification, or back issues of the weekly diaries that they missed, or offering advice/suggestions as to how to resolve my problems. Unfortunately, I don't remember the names of but a handful of those people so if you're not on this list, I apologize. I purged my email files and much of the mail I've gotten was erased. The people listed were the ones who I corresponded with the most regularly over the last 10 weeks which is why I remember them.

So, thanks goes out to:

Dan Duchaine: Well, duh. Had he not written the book, I wouldn't have done any of this. He gets first credit. Also, thanks Dan for answering my stupid questions about this diet to help me along.

Mauro Di Pasquale: For getting Dan to look into ketogenic diets again.

Jeffrey Krabbe: Who has been posting about and tinkering with the Anabolic Diet approach for over a year on the Training and Nutrition list. He has given me many suggestions/pointers from his own experiences which have really helped out with my plateau's.

Bob Koss: my partner in crime who has been fighting with success in Bodyopus for a while. He has gotten me to think hard about some issues (like the ketogenic ratio) to find a solution to his problems (he has lots of problems getting into ketosis which we just can't figure out). He really helped me keep in mind that what works for me doesn't work for everyone. But, we just kept tinkering with things until he got and stayed in ketosis. Also, he gave me many of the recipes that help me to keep my sanity during low blood sugar.

Bill Cooper: A fellow low carb dieter.

Joe Ritter: another low carb dieter.

Byron: Yet another low carb dieter.

Marc Flores: With whom I discussed the finer points of thyroid upregulation.

And, anyone else who sent me mail asking for past updates, offering encouragement, advice, etc. Again, I wish I had saved all my past mail but my hard drive doesn't have much space on it.

And special thanks to those who gave me shit about the diet:

The RD's who say the low carb diets don't make you lose anything but water. Wow, didn't know I had 13 lbs. of water covering my abs to lose.

KC (bozo never did give me his name): an 18 year old know it all punk who doesn't understand the principle of individuality and that what works for drug using bodybuilders diet wise might just not work for others.

All the other nitwits who said the ketogenic diets don't work, are dangerous, and all other manners of total bullshit whether it was on m.f.w, the low carb mailing list, the newsletters I read, etc.

The final body composition record:

Day	Date	Weight	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	4/31	156					15.4%	24		132*
Mon	5/6	153					13.6%	21		132*
Mon	5/13	154	7	27	18	8	42	12.2%	18.8	
		135.2								
Mon	5/20	151	6	27	17.5	9	42	12.2%	18.4	132.6
Mon	5/27	154	5	24	18	8.5	37.5	10.4%	16	138
Mon	6/3	149	5	25.5	15.5	8	38.5	10.4%	15.5	133.5
Mon	6/10	155	5	26	16	8	39	11.3%	17.5?	137.5
Mon	6/17	149	5	25	16	8	38	11.3%	16.8	
		132.2								
Mon	6/24	153	5	24	13.5	7.5	37.5	10.4%	15.9	137.1
Mon	7/1	142&	5	21	12	7.5	34	9.4%	13.3	
		128.7								

* These two measurement were taken with the one site home calipers. Therefore, they may or may not be directly comparable to the other measures.

&This value is so much lower than the others as I did not carb this weekend.

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

My week at a glance:

Sunday: As stated last time, I did a sum total of 2.5 hours of skating and consumed about 500-600 calories (been eating lots of non-starchy veggies like cucumber and celery to keep my sanity with such low 'real' food intake). Continued working on tan. Shaved the bod down. Gonna wait for it to regrow just a touch and try some Nair.

This is a bit of strange week but here's the overview. I'm leaving on vacation on Wednesday and will be gone until Sunday night. Since I will be staying at an aunt's lake house, I've decided to essentially make this trip my 'contest' to hit a peak. Now, an ideal situation would have had me at 7% bodyfat or lower last week but things never work out that nicely, especially the first time out. So, to drop that last little bit of bodyfat, I'm forced to diet right up until the day I leave coupling low calories (as low as I can stand essentially) with high volume, low intensity cardio. I plan to hit the high rep, depletion workout Wednesday and start carbing then (gonna be in the car anyhow). I will carb for 3 days which should put me at my peak on Saturday night (just in time for the real 4th of July party at the lake house area where my aunt is staying.) I plan to use a mild diuretic (Dan suggested buchu extract in a past Ask the Guru column) before my 'contest' and will make sure to get a picture of me in my prime shape whatever it turns out to be. As anyone will tell you, peaking for a contest or an event (whether bodybuilding or sprinting) is an art more than a science. Dan has written articles about how to get 75% there which I will follow to the letter. The last little bit requires practice and tweaking. Unfortunately, I won't have a chance to practice my peaking routine for this weekend. I have a decent idea about how much food I can eat during the carb-up before I start to spill over which is a start. This is one of the big benefits (this is pointed out in the Anabolic Diet book by Pasquale) of this type of diet. You are carbing every weekend while on the diet which gives you a chance to find out when you look your best. This makes it much easier to time your carb-up for a contest.

I'm going to be taking daily body composition measurements to keep track of what's going on in my body day to day to chart diet and

stuff. Since, I'll be away from the computer, it may be difficult to get all the details in here. But, I'll do my best.

Monday: Took the thermogenic stack from hell (described last week) and went skating. Put in a total of 60 minutes with 5X60" intervals at maximum effort in-between. Some of you may be questioning the use of intervals while cutting. I mean, didn't Dan say that cardio over 70% of max will cause muscle loss? I brought this up a while back using sprinters as an example. Well, as Mr. Deadlift pointed out, most elite sprinters are on the juice. Well, Shawn Phillips sure didn't seem to hurt for mass after his bout with High Intensity Interval Training. I've been thinking about this whole question and here's the conclusions I've come to regarding the debate over the best exercise for fat loss (weights vs. low intensity cardio vs. high intensity cardio vs. intervals):

Weight training sends a signal to the muscle to be maintained. That's why even high rep weight (20-25 reps) training should at least maintain muscle.

Aerobic training at low intensities sends the signal to Type I (slow twitch) fibers to become more enduring which has minimal if any effect on muscle size (there is a theory floating around regarding an optimal muscle size for Type I fibers. In essence, one researcher has found that there is some optimal compromise between fiber strength and capillary density. His research shows that Type I fibers approach an optimal level with training and that small fibers get bigger and larger fibers get smaller). Yes, too much of cardio will lower testosterone levels (got that review paper around here somewhere) but, in reasonable doses (say 30-40 minutes 2-3 times per week), I think it's safe. It's also relatively injury-proof (unless you fall off the treadmill while staring at the thong clad girl on the Stairmaster).

Continuous aerobic training near at higher intensities (specifically near the lactate threshold) seem to send the signal to Type IIa fibers to become more enduring and hence smaller. So high intensity continuous training (i.e. 20' at 80% intensity) is a bad idea. Interestingly, in the new MM2000 (a good issue BTW), Dan talks about new research suggesting that 80% of max heart rate is a better fat loss zone than 60%. I've seen these studies which typically find equal or greater fat loss from higher intensity/shorter duration's than lower intensities/ longer duration's as long as caloric expenditure are equal. However, these studies are not done on heavily muscled bodybuilders (who are likely overtrained anyhow) and do not address muscle catabolism. Numerous studies have found that the combination of heavy weight training and high intensity cardio causes overtraining and inhibits strength gains in the muscles which are being overworked (typically the legs).

Interval training above lactate threshold sends a signal to the Type IIb fibers similar to that of weight training. Tension is high, time is

relatively low (30-90 seconds which is on par with your average weight training set) so I think the signal is still one of growth or at least size maintenance. However, one thing to keep in mind (even moreso on a low carb diet) is that intervals selectively deplete glycogen from the Type IIa and IIb fibers. So, if you're in a heavy squat cycle, doing interval training for your legs may promote overtraining. But, most of us don't try to cut body fat and gain mass at the same time. If you decide to incorporate intervals for fat loss, you should only be trying to basically maintain muscle mass and strength. Trying to ramp the intensity and volume of both intervals and leg training is going to be a recipe for disaster.

Conclusion: either do low intensity, long duration cardio and don't recruit anything but Type I fibers or do intervals. Neither should result in much muscle loss as long as you don't go crazy with either. I think that it's the continuous training near LT where you will run into problems since the Type II fibers will be sent a message to become more enduring, hence smaller. And, as mentioned above there is data that a smaller muscle fiber is a more enduring one as there is a greater ability to diffuse nutrients (oxygen, etc) to the fiber as well as clear waste products (lactate, etc) out due to increased capillary density (number of capillaries per unit volume of muscle).

Trained the hell out of the ex-girlfriend (BTW, after a mere two weeks on this diet, she has reduced BF% from 23 to 19 and lost 4 lbs. of fat. I'm jealous as hell but she's got my 10 weeks of experience with this diet to help her get faster results).

Did another hour of cardio tonight to burn some more ketones. Am I overtrained? Yes. Am I grouchy as hell? YES. Am I almost done with this shit? YES!!! One more day. On Wednesday, I do the depletion workout and then start the grand carb up. A friend in Columbus who I'm going to visit just got a new expensive camera so I'll plan to peak for Saturday and get him to take my action shots for me. Which means I have to pay close attention to this carb-up. Not only is it 3 days long but I have the added pressure of getting photos taken so I can't afford any spillover. Of course, with a mild diuretic and some time in the sauna, even water spillover can be dealt with.

Tuesday: Well, as of this morning, I'm stuck at 8.5% bodyfat (still not too shabby considering it's the lowest I've ever been and I started at 15% 10 weeks ago). Since I'm not going to get much lower at this point, I figured I'd back off and take it easy. Going to raise calories today (still protein and fat) to 1500 or so. To be honest, it wouldn't surprise me if this gets my body out of starvation mode and I lose some more fat by tomorrow. Going to finish tanning with another 30-40' per side today and make the final run to the health food store to get everything I need (glucose

replacement drink for tomorrow in the car, perhaps some creatine to load the muscles, some type of herbal diuretic, things of that sort). Also going to start tapering off of the ECA stack. I may be imagining things but my neck seems swollen (the thyroid gland is right there) today so I want to get off the stack as quickly as I can without crashing out completely (which often happens when you go from high dose ECA to quitting cold turkey). I will taper to two doses of 25 mg E, 200 mg C, 81 mg A but still keeping the other stuff (cayenne, etc). Tomorrow, it's one dose but Dan has written that Clenbuterol (and perhaps ephedrine since they are related compounds) does affect the carb up due to changes in insulin sensitivity. Can anyone out there overnight mail me some phenformin?

Alright, did the depletion workout and it wasn't fun. I definitely felt depleted (hell, I felt depleted before I even started) and then started carbing. Going to make sure and use HCA, chromium, vanadyl, and all that other good stuff to avoid spillover. Am going to carb for 3 days (hitting the high GI foods into tomorrow and then moving to more complex carbs). Saturday is photo shoot day and I will be using a herbal diuretic pill (as well as finishing my tan between now and then). If I have to I'll sit in the sauna to get rid of the last water. Someone suggested I post my end of Bodyopus pic in JPEG format to the m.f.w gallery instead of directly to m.f.w (so those who want to see it can go download and those who don't won't have to wade past it to get to the most recent flame war about Rob Schuh). I very nearly snapped at some people tonight before my workout. Went to GNC for last minute supplies. The brain dead girl behind the counter asks me if I have a Gold Card (if you don't know, the Gold card allows you to get 20% off the extortion prices charged at GNC the first Tuesday of the month). I answer no rather curtly. She asks if I'm interested. Again, I answer no rather curtly. Rings up my total and fucking asks me again if I'm interested in a gold card. I was very close to saying "What did I say the first time you asked me this question? Can't you fucking listen?" but restrained myself. Then, at the grocery store getting carbo foods, the fucking bagger asked me if I needed help carrying my groceries. I said no. She asked "Are you sure?" No, you stupid twit, I was joking the first time. I definitely need a break from dieting before I kill someone. Coming down off of ECA isn't helping either.

Wednesday: Carbs, carbs, carbs. In roughly that order. But I have to be careful not to spillover.

The next 4 days are being written after the fact since I didn't have access to a computer at the place I was staying.

Thursday: Still carbing at this point. Since I'm meeting with a buddy

of mine who's got a new hot shit digital camera, he's going to take the ending Bodyopus pics of me pretending to be a bodybuilder. So, after carbing today on mainly starches and other low GI foods, I switched back to fat and protein.

Friday: a little fat and protein for breakfast as I drive to meet my friend. Just enough to keep me full but not so much that my stomach is bloated from too much food. Also been taking some herbal diuretic from the health food store since yesterday evening to drop water under the skin.

At high house, we shave the spots I missed and oil me up (taking TC's suggestion of Almond Oil from a previous MM2000). I feel like a 'real' bodybuilder now. I try to pump up but it's not working. I drink some grape fruit juice to see if that will help and then go sit outside in the hot sun (which frequently helps to bring out the vascularity in my legs). Still nothing going on. Am I dehydrated? Not sure. It turned out not to matter as his camera didn't give very good contrast and any veins wouldn't have shown up. My tan is still a bit uneven in places since I started too late on it. I'm not as cut as I'd like to be in the abs but my lower body looks pretty damn shredded. All in all, I learned a few things about peaking (as in how not to) with this photo shoot. I'm not embarking on a 10 week cycle for the recent MM2K best shape of your life and will hopefully have learned a few things by then about how to peak for a photo shoot.

The final week body composition measures:

All values are taking into account a -4 mm correction from my Slimguide calipers as compared to Lange calipers (see week 2 update as well as week 9 for an explanation of why).

Day	Weight	Sum 3	BF%	FM	FFM
Mon:	142	30	8.5%	12	130
Tue:	142	29.5	8.5%	12	130
Wed:	147	29.5	8.5%	12.4?	134.6

Thu: I didn't have access to a scale so I didn't do measurements.

Fri: Same as Thu.

Sat: Same as Fri.

Sun: same as Sat.

Friday: Here's the tabulated Friday changes in bodyfat:

Day	Date	Weight	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Fri	5/17	145	8	27	18	8	41	12.2%	17.7	129
Fri	5/24	144	5	24	19	8	37	10.4%	15	129
Fri	5/31	146	5	24.5	17	8	37	10.4%	15.1	130.9
Fri	6/7	146	5	25.5	15.5	7.5	38	11.3%	16.5	

129.5

Fri 6/14 146 5.5 25 16 8 38.5 11.3% 16.5

129.5

Fri 6/21 144 5 24 13.5 8 37 10.4% 14.9

129.1

Fri 6/28 143 5 22 11.5 7 34 9.4% 13.4

129.6

Fri 7/5 Since I didn't have access to a scale, taking BF% measurements was fairly moot. Oh well.

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

Saturday: After my photo shoot, I carbed like a madman. We went to an all you can eat pasta place and did. At carbs until dinner and then switched back to low carbs after that.

Sunday: Back to meat and fat again. I'm still debating what to do for the mass phase of training. Increasing calories is a given.

What I haven't decided is whether to:

a. carb every weekend

b. stay on low carb but do a carb spike before every workout as described by Dr. Squat in an old issue of MDFH. It's Sunday night as I'm writing this so I have to make a decision this week.

Well, except for one last little bit (see the Bodyopus epilogue), that's the end of the series. I'll do occasional updates if I find anything out really exciting about the diet but, for now at least, I'm out of here.

Lyle McDonald, CSCS

Subject : Ok, I lied: Bodyopus Week 11

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Date: 1996/07/17

Well, due to some massive fuckup on my part, the original write up of this week got lost in cyberspace. I'll put the blame on the fact that I have a new email account and a different newsreader but, as we say in the south "It's a poor carpenter who blames his tools."

In any case, I know I said that I wouldn't be doing these things after the original 10 week stint. But, due to my pathological need to both write and draw attention to myself, I feel compelled to forge ahead. And, I still don't have a girlfriend so it's not like I have anything better to do in the evening.

Ok, as mentioned in the Bodyopus epilogue, having gotten close to my original goal and attained a previously unobtainable 8.5% bodyfat, I am now embarking on a mass phase using the same diet structure (with one or two modifications). Also, as mentioned, I'm setting up the next cycle as a 10 week dealie to correspond with the MM2K Best Shape of Your Life Contest. The official start date was July 4th (I had another picture taken on that day although my real photo shoot wasn't until the 5th) but didn't actually start my 10 week program until Monday, July 8. Which gives me 4 less days to reach my goals but that's ok. I tentatively plan to divide the 10 weeks into:

1. 6 weeks of mass training or until I hit 10% bodyfat
2. 4 weeks of cutting. I think I pretty well have the diet phase dialled in for myself and will make faster progress this time and will attempt to cut to 6-7% bodyfat with no muscle loss (no mean feat).

I have decided (after much pondering and debate with others) to do the Ironman 10 week Size Surge program. It is a 3 day per week program based around compound movements and relatively low volume (1-2 sets per exercise to failure). I decided on this for two reasons:

1. I've heard good results from people who have used it.
2. It fits well into the structure of this diet. The Monday workout (squats, chest, back) takes advantage of fully carbed muscles. The Wednesday workout (deads, shoulders, arms, abs) will be done following the one hour carb-spike as outlined by Pasquale. The other Friday workout (squats, chest, back) will immediately precede the carb-up and anabolic spurt on the weekends.

One comment I got from MF was the possible overwork of the shoulder girdle which gets hit three days. I'd be worried about it but I'm not altogether that strong (except decent legs) anyway.

So, with that as a prelude, on to the second 10 weeks of My Bodyopus Experience. And I really will try to keep these things shorter.

Lyle McDonald

The body composition log: Taken with Slimguide calipers first

thing Monday morning upon awakening.

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
-----	------	----	-----	-----	----	-------	------	-----	----	-----

Mon	7/8	152	3	20	10	6	29	8.5	12.75	139.25
-----	-----	-----	---	----	----	---	----	-----	-------	--------

Notes: Ok, still holding at 8.5% bodyfat which is good. It gives me some room to gain muscle as long as I stay below 10% bodyfat.

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

My week at a glance:

Sunday: This was the Sunday following my lame 4th of July vacation and I returned to no carbs today. No exercise.

Monday: Ok, first lift of the week. The actual workout is detailed below for all three days. I pulled something in my right adductor group which bothered me during squats but, with 10 weeks to get in killer shape, I can't be bothered by it. Workout went well and I was out of there in about 50'. Mabye 10' cardio warmup before and 10' after. For the record, I will be cutting way, way back on cardio this cycle. Might do a little very easy to keep from turning into too much of a slug but I typically overtrain and do too much cardio anyway.

Eating is a bit different now since I don't have to count calories (this is so relieving after the diet hell I put myself through). A typical day's diet is:

Breakfast: 4 scrambled eggs

Lunch: steak or pink salmon in mayo

Lunch 2: more salmon

Dinner: more steak or cheese sticks with some cream cheese to keep the ketogenic ratio high

I might also put a Designer + Flax/Olive oil shake in there somewhere or Designer Whey Pudding (designer plus heavy cream and equal). Figure calories in the high 2000's or so. I'm not really paying attention to it and am just making sure to eat. Trying to get something every 2-3 hours at least.

Tuesday: Hit ketosis this evening which is about right. Since I'm not training this day, I'm wondering if ketosis will take longer. Also, I wonder if ketosis is absolutely necessary for gaining mass anyhow. I don't get the impression from Pasquale's book that it is. His contention seems to be that the low carbs and resulting hormonal effects are the main part of the battle. For fat loss, of course,

ketosis is critical to the success of the diet. No activity other than incidental walking with my clients today.

Wednesday: Did the carb spike this morning. Put away 900 calories of sucrose (jelly beans and candy corns, yum) along with a scoop of Designer protein and Ultra Fuel (another 100 calories carbs). Not sure how Pasquale figures one hour for 1000 calories. More like 5 minutes. Did this in the morning to establish a baseline but will probably put it right before the evening weight workout in future weeks. Workout number 2. Should NOT have done deads at 225 (got 2 sets of 6 reps). My back is severely tweaked (not injured, just sore) after this. My last rep or two that second set sucked shit. Didn't get my butt down and pulled with my low back. Bad, bad idea. Worked delts, bis, tris, and abs. Also did the plate pinch for forearms. Got some funny looks in the gym for this one. The plate pinch is one of those lost exercises for grip. Take 2 10lb plates (25's if you're a real man), face the carved part together and then pinch the plates together as long as you can (watch your feet when they drop). I made 50 seconds with each hand. Again, no cardio.

Strangely, am not back in ketosis yet this evening so the carbs this morning may have screwed me. Again, I'm not sure ketosis is necessary on a mass phase when calories are above maintenance anyhow so I'm not too concerned. Yet...

Thursday: Same diet. No cardio. It's really strange to not do cardio every day. As an endurance athlete, overtraining has always been a big part of my daily routine. Maybe I'll actually grow this time.

Friday: Ok, repeated Monday's workout with some small changes in exercise order. I was so strong I scared myself. On squats for example, Monday, I got 225X9,8 + 1 with help. Today, I cranked out 225X12! and then 225X15! Started the carb-up immediately after.

Saturday: carbs, carbs, carbs. In that order.

Sunday: Started the morning with about an hour of very easy skating on an empty stomach after dropping some HCA and carnitine to try to burn some fat. The fact that a girl I'm currently *trying* to date was there had nothing to do with it. No, really, I mean it. Stopped carbing at 6pm and back to protein and grease.

For the record, here's the exact workout I'll be following the next 6 weeks. Set/rep notation is as follows: 2/6-8 is 2 sets of 6-8 reps or failure. I didn't quite have the weights dialled in this first week and many sets went past 8 reps. Rest periods

are 1' between warmups (typically one set at 50% of work weight for 8 reps and one set at 75% of work weight for 5 reps) and 2' rest between work sets.

Mon	Wed	Fri
Squat (2/6-8)	DL (2/6-8)	Squat (2/6-8)
Leg ext. (1/12-15)	Overhead press (2/6-8)	Leg ext. (1/12-15)
SLDL (2/6-8)	Lateral raise (1/12-15)	Leg curl (1/6-8, 1/12-15)
Chins (2/6-8)	Barbell curl (2/6-8)	Seated row (2/6-8)
Seated row (2/6-8)	Inc.Hammer curl (1/12-15)	Chins (2/6-8)
Inc. DB bench (2/6-8)	Tri. Pushdown (2/6-8)	Machine bench (2/6-8)
Machine bench (2/6-8)	Kickback (1/12-15)	Inc. DB bench (2/6-8)
Pec deck (1/12-15)	Abs (whatever)	Pec deck (1/12-15)

See you next week.

Lyle McDonald, CSCS

Please note that I have a new email address. Send any and all correspondence to:

lylemcd@edge.edge.net

I decided to ditch delphi.com as, for the money I was paying, I wasn't getting the services (like graphical access to the WWW) that I want. Edge Net is awesome although it's a pain in the butt learning a new mail handler and usenet handler. Also, access to the Edge means I get my own WWW page (at last) which gives me a good place to post updates and pictures of myself as I get (hopefully) bigger. I'll post the URL after I get a chance to get the damn thing put together. Please do NOT send me linking URL's at this time as I'll just lose them anyhow.

Subject: Bodyopus Week 12

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Date: 1996/07/21

Well, since I can't think of anything else really brilliant to ponder or write about, I thought I'd address some of the more frequent questions I'm getting in email about using Bodyopus as a fat loss diet. Note that many of these suggestions ARE in the book but it appears that either:

1. People are trying the diet without reading the book.

or

2. They are reading the book but not paying enough attention to it.

So, here are some of the common questions I'm having to field about the diet. It's strange, I write 10 weeks worth of diaries and all of a sudden I'm the Bodyopus guru. Ah, well, I guess it saves Dan from having to answer all this mail.

1. What's the best workout schedule you found for Bodyopus?

After much experimentation with both my own training and that of my ex-girlfriend (who makes an easy control), I've decided on the following in terms of training, sets, reps, etc. I'll present the exact workouts I used with the ex-girlfriend as they consistently put her in ketosis by morning of day 3 without the use of any glucose disposal agents.

All work sets are presumed to failure. Time in parentheses is rest interval between work sets.

Mon: legs, back, biceps, abs

Warmup 5-10' on bike.

Squats: 2 warmups, 2 sets of 6-8 (2')

Leg curl: 1 warmup, 1 set of 6-8 (2')

Calf raise: 1 warmup, 1 set of 6-8 (2')

Assisted chins: 2 warmups, 2 sets 6-8 (2')

Seated wide grip row: 1 warmup, 2 sets 6-8

Barbell curl: 1 warmup, 2 sets 6-8

Abs: varies week to week

Cool down 5' on bike.

After all heavy work is finished, I then take her through a circuit of one set of each of the above exercises. She uses 50% of the weight used for the sets of 6-8 for a set of 20-25 with 1' rest between exercises.

Tue: chest, delts, tris

Warm-up 5-10' on bike.

Assisted dips: 2 warmups, 2 sets 6-8

Incline DB bench: 1 warmup, 2 sets 6-8

Shoulder press: 1 warmup, 2 sets 6-8

Lateral raise: 1 warmup, 2 sets 6-8

Tricep pushdown: 1 warmup, 2 sets 6-8

Cool down 5-10' on bike although she'll likely start doing 20-30' of easy cardio afterwards to hasten fat loss.

As with Monday, I have her do one set of each exercise for 20-25 reps in a circuit format after all the heavy work is done and before cardio. She's never failed to get into ketosis by Wednesday morning with this scheme. If she could train in the mornings, I bet she'd be in ketosis early Tuesday. The key is a relatively high volume of training on Mon and Tue (if you use a different split or split across three days, make sure to get the large muscles: legs,

chest, and back on Mon and Tue) and I think the high rep backoff set really helps as far as burning lots of glycogen/glucose.

Wed: 30'+ of cardio

Thu: 30'+ of cardio

Fri: the depletion workout.

Done in a giant loop format. A typical workout is:

Squat, incline bench, chins, leg curl, shoulder press, seated row, calf raise, tricep pushdown, bicep curl, abs. Pant, pant.

1' rest between each sets using the same weights as for the sets of 20-25 on Mon/Tue. Typically 4 or more total loops are done. Depends on when we get started (gym closes at 8pm and she works until 6:30 pm) and how quickly she gets bored. I had to bribe her with treating for pizza tonight to get a 4th loop out of her. No telling what I'd of had to offer to get a 5th. Actually, I've got a pretty good idea but this is supposed to be family entertainment. ;-)

Sat: off

Sun: off

The next three questions relate to the glucose disposal agents vanadyl sulfate, chromium picolinate, and magnesium. I thought Dan addressed this adequately in the book but it is a recurring question so I'll answer it one more time here.

2. What doses of each should I use?

Vanadyl: up to 120 mg per day in divided doses. At some point when I have the time, I'd like to really quantify what's the best dosing schedule for vanadyl as far as lowering blood glucose to ketone land. For now, I suggest 20mg six times per day or 30 mg 4 times per day. I was doing 50mg twice per day (morning and evening) but I'm not sure that was the best choice.

Chromium: 800 mcg per day (most capsules are 200 mcg so 4). Again, divided doses taken with the vanadyl.

Magnesium: 1000 mg/day (my capsules are 250 mg/cap so 4) Divided doses taken with vanadyl and chromium.

3. Should they be used on low carb days?

Only until ketosis is established. Glucose disposal agents either act like (vanadyl) or help along (chromium) insulin to do it's job. Once you're in ketosis, there's almost no insulin present so taking these substances is a waste of money.

4. Should they be used during recarb?

Of course, of course, of course. Use the same dosing schedule as outlined above.

To summarise these three questions, here's a typical weeks dosing schedule for me:

Mon: 120 mg vanadyl (20mgX6), 800 mcg chromium (200mcgX4), 1000 mg magnesium (250mgX4)

Tue: same as Monday

Wed: if ketosis established, discontinue use

Thursday: none

Friday: begin taking all three agents with carb meals. I typically take 20 mg vanadyl, 200 mcg chromium, and 250 mg magnesium with every other meal.

Saturday: continue with same dosing schedule.

Sunday: continue with same dosing schedule.

Next week, more questions (should this be the Bodyopus FAQ?).

Lyle McDonald, CSCS

The body composition log: Taken with Slimguide calipers first thing Monday morning upon awakening.

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
-----	------	----	-----	-----	----	-------	------	-----	----	-----

Mon	7/8	152	3	20	10	6	29	8.5	12.75	139.25
-----	-----	-----	---	----	----	---	----	-----	-------	--------

Mon	7/15	157	3	20	11.5	6	29	8.5	13.35	143.65
-----	------	-----	---	----	------	---	----	-----	-------	--------

Notes: ok, gained about .5 lbs. of fat but FFM is up 4 lbs. (some of which is undoubtable water + glycogen) but that sounds about right. Percent bodyfat is the same and we'll see how things go in the gym today.

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

My week at a glance:

Sunday: As mentioned last week, I skated this morning pre-breakfast and carb'd until 6pm. Back to low-carb hell. Actually, it's not that bad since I'm not restricting calories right now. The question is what will happen to body composition as of tomorrow morning.

For those tuning in late, here's the workout I'm following with sets and reps indicated (2/6-8 means 2 sets of 6-8 to positive failure).

Mon	Wed	Fri
Squat (2/6-8)	DL (2/6-8)	Squat (2/6-8)
Leg ext. (1/12-15)	Overhead press (2/6-8)	Leg ext. (1/12-15)
SLDL (2/6-8)	Lateral raise (1/12-15)	Leg curl (1/6-8, 1/12-15)
Chins (2/6-8)	Barbell curl (2/6-8)	Seated row (2/6-8)
Seated row (2/6-8)	Inc.Hammer curl (1/12-15)	Chins (2/6-8)
Inc. DB bench (2/6-8)	Tri. Pushdown (2/6-8)	Machine bench (2/6-8)
Machine bench (2/6-8)	Kickback (1/12-15)	Inc. DB bench (2/6-8)
Pec deck (1/12-15)	Abs (whatever)	Pec deck (1/12-15)

Monday: Damn! what a workout. Here's some highlights.

Squats:

Last mon: 225X10,8

Today: 245X10,10

Incline DB bench:

Last mon: 40X12,10

Today: 45X12,10

Other lifts increased similarly. This is a big strength gain for one week. I wonder how much of it is just regaining anything I lost while dieting. Ate more or less ad-libitum today. Guessing about 2500 calories (which is a lot when you consider I was eating 600/day for a while there) since I had to miss dinner due to my schedule.

Also got an awesome pump today. Not that I'm convinced at all that the pump is necessary for growth (maybe to stretch the fascia out to allow more potential for growth or something like that) but it sure feels good. Like Arnold said "Better than coming." At this point, I'll take what I can get. ;-)

Also, stranger and stranger, I'm already in ketosis. Which has never happened before (no, really, baby.... whoops, already used that joke once). Individuals I've talked to tell me of getting into ketosis this quickly with fairly extensive workouts but this was the same workout I did last Monday and I didn't hit ketosis then. Or maybe, I did hit ketosis but didn't think to check. The only thing I did differently today was NOT taking but about 40 mg of vanadyl. Again, strange.

Tuesday: Shit! Now I'm back out of ketosis. Maybe burning them off with activity but I didn't do much today except train clients. Did 20' of very light cardio (HR = 120) tonight with the ex after I trained the hell out of her. Showed some guys at the gym the plate pinch mentioned last week since they wanted a grip exercise. Next

week I teach them the Farmer's Walk and really kick their asses. Stayed up far too late dickin' around on Netscape, doing mail and typing this stupid thing and I've got a 9am appointment. It's 1am and I'm going the hell to sleep.

Wednesday: Was in ketosis this morning which is good. Did the same carb-spike as last week (trying my damndest to be methodical and not change 14 variables each week). 900 calories of pure refined sugar (candy corns and jelly beans. Double yum) plus 1 scoop of Ultra fuel (100 calories carbs) and a scoop of Designer Whey protein for a total of 1000 calories of carbs. Also, took 30mg vanadyl, 400 mcg chromium, and 500 mg magnesium. The only change I made was moving it a bit closer to workout to see what (if any) difference it would make. Moved from 9am last week to 11 am this week. Not sure exactly what I'm trying to figure out here but it sounds good and scientific.

Workout went well. The ex sat on the bike for an hour while I lifted. Deads, shoulders, arms, abs, and forearms same as last week. Not unsurprisingly, all lifts improved over last week. Also, decided to get some funny look again by doing the Farmer's Walk instead of plate pinch for forearms. If you're not familiar, the Farmer's Walk is a strongman event where you take 100 lbs. DB's (I used 50's cuz' I'm a big weenie) and simply walk around with them until you drop them on your toes. In addition to giving the forearms a killer workout, it makes the rest of your body work too. I was gasping for breath by the time I finished my set of 70 seconds. Will move up to 55 lbs. next week or alternate plate pinch each week. Or come up with some other strange forearm exercise (these are taken from past articles in Hardgainer magazine) to amuse/bemuse the guys at World Gym.

Get this shit: after giving me constant crap about my dietary approach the past 10 weeks (Bodyopus) and that it's not balanced, not healthy, etc, my mom has decided to jump on the low carb bandwagon. Know what convinced her? The fact that one of our fucking neighbours was on Atkins and was losing weight. That's right, mom, don't listen to your son: jock boy-exercise physiologist-personal trainer but DO listen to your neighbour. People around me do this shit all the time and it really, really chafes me ass. Hell, at least my mom is exercising along with it so I guess I should be happy about that. Of course, same thing happened with weight training. I've told her for 3 years that weights are the key to being healthy, losing fat, etc. She tells me "It's not natural." I tell her to go to the park and lift rocks or something. She talks to a friend who started lifting weights and, voila, she wants to start. My ass is so chafed... Well, don't want you guys to get the wrong idea. Look, just because my hair is long, both my ears are pierced, and my legs are shaved (in-line skating, yeah, that's

it) and I don't have a girlfriend right now doesn't mean anything....

Wednesday evening: Hmm, not back in ketosis. This happened after last week's carb-spike as well. I may have simply burned them all up during exercise or they just aren't being generated in sufficient amounts to show on the Ketostix.

Thursday: Ok, cool, back to showing ketones. Today is a just a mild cardio day with the ex (she gets bored easily) for about 20-30 minutes tonight. The carb-up is in sight. ("And there was great rejoicing. Yea!" 10 more no-points for first person to name the reference. First person to 100 gets an autographed picture of my butt. Huh, huh, huh, he said 'butt'.)

Oh, another note: Read a good book this week. Called "Steroid Blues" by Richard La Plante. Basic murder mystery about the situations surrounding the murder of a homosexual doctor who writes drug prescriptions for bodybuilders who will pose for/have sex with him. My only dislike was that it perpetrated the idea that all bodybuilders are a bunch of depraved, no-testicle, drug-abusing psychos (no need to raise your hand if this describes you). There are some sick images in there (like one with the main murder suspect and a severed monkey's head but I won't give away this Secret of Advanced Bodybuilders to the newbies. Give you a hint: fresh hypothalamic fluid. Lots of hormones). The ending is a bit unbelievable and I saw it coming with a couple of chapters left to go but it's not the worst book I've ever read. Check it out if you get the chance. Lyle's Book rating: 2 plates on the bar. (5 plates is highest. no plates sucks.)

Friday: Some good news I think. Target had a sale on Thermoscan automatic thermometers (the one's that take 1 second to measure your temperature through your ear canal) so I picked one up to do morning temp. Recall that, during the dieting phase of Bodyopus, my morning temp hovered around a rather low 97.0 (or worse some days). This is indicative of lowered thyroid levels which occurs with heavy dieting and long term use of thermogenics. Also, loss of muscle will lower thyroid. In any case, took morning temp today and it's recovered somewhat to 97.5. Still a bit lower than Dan's ideal 97.8-98.2 but a step in the right direction. Hopefully, between increased calories, no ECA and the gain of some muscle, I can achieve an optimised thyroid level by the time I start cutting in 5 weeks.

Off to do the Friday workout.

Wow! Another killer workout. Squats, which are probably my favourite and best movement improved from 245X10,10 on Monday to 245X15,12 today. I go 265 next Workout. All other lifts went up as well. I'm pretty much using the past Friday's workouts as a guide for how much (or how little) to raise weights and will post the entire 6 week workout report at some time in the future. Had

a small carb + protein shake after workout and then put the girlfriend through an hour of high rep circuit training for the depletion workout. Then, we both started carbing as usual. Donuts, donuts and more donuts.

Saturday: Ah, you gotta love them carbs. Just ate and ate and ate some more today. An interesting observation that I've made is that my food choices on carb days are improving. Instead of eating total junk like when I was dieting, I'm making better overall choices in terms of nutritious foods. I have a feeling this has something to do with the psychology of carbing for 2 instead of just 1 day. Knowing that I can eat what I want for 2 days keeps me from eating anything I want. Strange, huh?

Sunday: Still carbing (you gotta love peanut butter with grape jelly on wheat bread). Went for an easy 45' skate this morning with some friends. Continued carbing until 6pm finishing with a small Ultra fuel and Designer protein shake to get an insulin spike and start getting blood glucose down.

See ya next week.

Lyle McDonald, CSCS

Please note that I have a new email address. Send any and all correspondence to:

lylemcd@edge.edge.net

Subject : Bodyopus week 13

Copyright Lyle McDonald 1996

Date: 1996/07/28

Continuing in the vein of last week, here's the continuation of Lyle's Unofficial Bodyopus FAQ where I try to answer (for the last time?) some of the more common questions I'm having to field about the diet.

5. What foods do you eat during the week? Don't you get bored? The 5 days of no carbs is the easy part of the week food wise. Just about anything is fair game as long as three criteria are met:

a. fat intake must be at least 1.5 grams of fat for each gram of protein/carbs. If you want a rationale, use Dejanews and track down my discussion of the ketogenic ratios. If you want to try to get into ketosis on less fat, it's your funeral. It will happen

but it will take much longer and not work as well. Please, please, please trust me on this one. I've gotten far too much mail from people who can't get into ketosis until day 4 or 5 of the week because they are not eating enough fat on the diet. And, one day in ketosis won't cut it for fat loss. With the proper combination of ketogenic ratio, training (see last week's FAQ) and use of glucose disposal agents (see last week's FAQ), you should hit ketosis by late Tuesday evening or Wednesday morning at the latest. That gives you almost 3 full days in ketosis.

b. Caloric intake is not too high. Calories should be set at maintenance or 90% of maintenance for optimal fat loss. If you don't know your maintenance value, shame on you. Dan explicitly said to determine your maintenance calories before starting the diet. Of course, I didn't either. IAE, if you don't know your maintenance intake calorie level, use 10-12 calories per pound of bodyweight (or 11 calories per pound of lean body mass) as a starting point. Stay there for a week and see what happens. If you don't lose sufficient fat, lower calorie intake a bit further. If you're losing more than 2 lbs. per week, increase calories a bit as you will lose too much muscle losing fat that quickly.

c. You don't eat any freaking carbs. Or at least less than 30 grams per day. This is really the most important of the three criteria as even this few carbs (and they hide everywhere) is enough to keep most people out of ketosis. Some may need to go as low as 10-20 grams and some seem to handle as many as 40 but don't push your luck on this. Personally, I strive for as close to zero grams of carbs as I can during the low carb phase. (Which brings up another question I got: Is eating too few carbs during the week a bad idea? Not that I can see. Ketosis is ketosis whether you eat zero grams carbs or 10 grams carbs. However, some carbs (I like cucumber with salt on it) may help psychologically. A lower carb intake might lead to deeper levels of ketosis but there's no way to know if this is indicative of greater fat loss or not. Atkins thinks it is but Dan says maybe.)

This is one of the more common questions I get and I do not know what the problem is. Anything is fair game as long as there aren't carbs in it. That means: any meat, most cheeses, heavy cream, any vegetable oil, etc, etc. No, not a particularly varied diet but quit bitching. Dieting isn't really supposed to be fun and you can eat for variety on the weekends. Note that many foods (hot dogs for example) do not have nutrition labels. And, companies put carbs in everything these days. If a food doesn't have a label, I recommend you DO NOT eat it just to be safe. Look, go get a copy of Corrinne Netzer's "Complete Book of Food Counts" and carry it around with you. Memorise it if you have to. It has listings for just about every food you might come across. Just don't eat carbs.

Some have asked me if it's ok to have a smidgen of peanut butter or something like that. Again, as long as you're below 30 grams carbs per day, it's fine. However, you have to be very careful doing this. I'm the kind of person who, once I get the taste of carbs in my mouth, I'm history. Give me a touch of peanut butter and I'm likely to eat the whole jar, go buy another one, and eat that too. Might even smear some of it all over my body just for the sheer unadulterated hell of it. I basically shoot for zero grams of carbs per day during the week and save my carb-ing for the weekend. I'd rather not tease myself with a measly teaspoon of peanut butter. I'd rather wait and have three peanut butter sandwiches on the weekend. Preferably with very high GI grape jelly on some chewy wheat bread. Whoops, better stop there before I get too hungry.

6. They say that caffeine raises insulin levels, can I still use the ephedrine, caffeine, and aspirin (ECA) stack?

I'm supremely tired of arguing the caffeine and insulin debate. Look, the studies people are referring to find that, in some individuals, caffeine intake will lead to greater insulin release if carbs are eaten. Caffeine by itself DOES NOT RAISE INSULIN at least not through any possible mechanism I can find. So please quit asking. The ECA stack will definitely improve your results on this diet. I took it and never had a problem. So has everyone else I've talked to or coached on the diet. Yes, Atkins says no caffeine but here's what I think happened: Some individuals are sensitive to the citric acid (and/or Nutrasweet) in diet sodas. I think some early Atkins dieters were drinking lots of diet soda and couldn't get into ketosis. Atkins concluded that caffeine was the problem when the real culprit was something else in the soda (again, citric acid and nutrasweet seem to keep some people out of ketosis). If you are having trouble getting into ketosis and are consuming lots of Nutrasweet (Equal) or diet soda to stay happy, try dropping it and doing just protein, fat and water and see what happens. You may simply be sensitive to one or more of these compounds.

On a similar note, someone asked me about smoking and insulin release. Without getting preachy about any athlete who smokes, all I can say is I think that smoking may be like caffeine in that, if you eat carbs, you may get more insulin released than if you didn't eat carbs. But, having not really looked into it, I can't say for sure.

7. What doses of ECA did you take?

This was spelled out directly in the book but I'll answer it again here. The research suggests a dose of 20 mg ephedrine, 200 mg caffeine, and some amount of aspirin (hard to quantify just how much you need but I've seen anywhere from 20 mg to 300 mg suggested). Dan suggests 50 mg ephedrine, 200 mg caffeine, and 81 mg of aspirin (a baby aspirin)

three times per day which is what I used. I tried taking 400 mg of caffeine as well but didn't notice a big difference. Other than having to buy caffeine pills (I use Vivarin) twice as frequently.

Note: Daniel Mowery, in his book "Fat Management: The Thermogenic Factor" suggests cycling ECA 5 days on 2 days off which fits in well with this diet. The rationale is that the adrenal glands need a break from the stimulation of ECA. Also, clenbuterol has been shown to lower insulin sensitivity which would affect the recarb and ephedrine may do the same thing (being a related but weaker compound). So, taking the weekends off of ECA isn't a bad idea. Also, ECA blunts hunger which is definitely what you don't want when you have to eat every 2 hours during recomposition.

8. Should I take ephedrine and clenbuterol while on this diet?

Not unless you want a stroke. Ephedrine is a weaker cousin of clenbuterol although both work through similar actions. Taking both is not only unnecessary but probably dangerous.

One interesting question I got was the possibility of alternating clen and ephedrine intake (say 2 days clen, 2 days eph) to avoid the receptor downgrade seen with clen. Not knowing enough about the compound, I can't say for sure if this would work. Seeing as both ultimately lead to receptor downgrade (as well as inhibition of T4 to T3 conversion), while this might slow down the effects, only complete discontinuation of the stack will allow for upregulation.

9. Are there any other substances to help hasten fat loss along with the ECA stack?

I tried several different compounds but was not methodical enough to know what did what. Some things worth trying are:

L-tyrosine: In rats at least, tyrosine has been shown to further potentiate the effects of the ECA stack. According to Larry Hobbs ("The New Diet Pills" Pragmatic Press, 1996), there is reason to believe (although he never gives those reasons) that it will do the same in humans. Kind of like when you hear a sentence start with "Well, they say..." They who? I want to start a company called They,Inc. to put out all these pithy little saying like "Well, they say that a colourful sunset means this." "And they say that caffeine raises insulin." And charge royalties to people every time they use "They say..." in a sentence.

Dose: 500 mg - 1 gram with each dose of ECA.

L-carnitine: This is a substance involved in transporting free fatty acids into the mitochondria to be burned. Thing is, you need a lot of

it, on the order of 2+ grams per day to have any effect. And, typical costs are \$1/gram. Also, most of the research I've seen does not support its use assuming you're eating a normal meat based diet (carnitine is synthesised from lysine and methionine) which you should be on Bodyopus. It's possible that some could have a deficiency and supplementation might be useful. Or that the particular situation of a ketogenic diet would make it useful. But, I can't say for sure.

Dose: 2 grams taken 30 minutes prior to aerobics.

Hydroxycitric acid (HCA)/Citrimax: Some have suggested that ingestion of HCA prior to cardio may allow the carnitine transferase shuttle to work more efficiently. HCA inhibits conversion of excess carbs and protein to fat in rats (although, Larry Hobbs in "The New Diet Pills" does not believe it will do the same thing in humans). I had the most success using HCA on weekends during recarb since I tended to eat too much. It kept me full and seemed to help me avoid fat spillover. Seem to preferentially refill muscle and liver glycogen while avoiding conversion of carbs to fat.

Dose: 750 mg taken 30 minutes prior to cardio for fat burning.
750 mg taken 30 minutes prior to meals during recarb 3-4 times per day.

Yohimbe: Yohimbe is a beta-receptor agonist. It may help women to lose stubborn lower body fat but realise that fat tissue has poor circulation and oral yohimbe may have little result. Direct injections or possibly a yohimbe/DMSO combination might work better. However, yohimbe did seem to help me maintain a higher body temp while dieting. I recommend Twinlab Yohimbe Fuel as it's standardised. Most herbs are not.

Dose: 8mg 2-3 times per day. Or get some of Twinlab's Dick Fuel (aka Male Fuel) if you can't get it up for the girlfriend.

Cayenne pepper: Cayenne is another thermogenic but it works through a different pathway than ECA. You can definitely feel this one working. Almost immediately in fact. You'll get some heartburn and start sweating really quickly. And, make sure and swallow the capsules fast or it will burn your throat. Hell, leave it on your tongue too long and you can feel it starting to burn as the capsule dissolves. Get Cool Cayenne if you can find it as the normal stuff tends to give me heartburn.

Dose: 40,000 Heat units (HU's) - 80,000 HU's three times daily.

DNP: Just messing with you there. You can't buy it. You can make it although you'll probably just blow yourself up. And, use too much and it will kill you. Just diet for a week or two more and get over it.

Squat (2/6-8)	DL (2/6-8)	Squat (2/6-8)
Leg ext. (1/12-15)	Overhead press (2/6-8)	Leg ext. (1/12-15)
SLDL (2/6-8)	Lateral raise (1/12-15)	Leg curl (1/6-8, 1/12-15)
Chins (2/6-8)	Barbell curl (2/6-8)	Seated row (2/6-8)
Seated row (2/6-8)	Inc. Hammer curl (1/12-15)	Chins (2/6-8)
Inc. DB bench (2/6-8)	Tri. Pushdown (2/6-8)	Machine bench (2/6-8)
Machine bench (2/6-8)	Kickback (1/12-15)	Inc. DB bench (2/6-8)
Pec deck (1/12-15)	Abs (whatever)	Pec deck (1/12-15)

Monday: Nothing exciting to report here. Diet is the same. Training tonight. Only difference is that I'm using Twinlab Super Vanadyl Fuel this week. No real reason other than GNC was out of their generic vanadyl sulfate. Taking the suggested dose of 2 caps twice a day (25 mg total vanadyl with BMOV and some other stuff). Also going to try glutamine pre and post workout (2 grams each dose) see if it helps with recovery at all. Supposed to give a GH pulse at 2 grams on an empty stomach but then again so is having an orgasm. Perhaps pre and post workout masturbation will be the next anabolic frontier. Any volunteers? You should probably save this for your forearm day if you're on a split routine.

The workout: Another killer workout. Again, as an example of some workout increases from last Monday:

Squats: Last mon: 245X10,10

Last Fri: 245X15,12

Today: 265X10,11 plus a 6 second negative leaving bar on pins (This effort got a 'Good Set' from the guys doing leg presses with belts and knee wraps. Wimps.)

Incline DB bench: Last Mon: 45X12,10 (done before machine benches)

Last Fri: 45X8,7 (done after machine benches)

Today: 50X11,7 (done before machine benches)

Seated rows: Last Mon: 115X7,8 (done after chins)

Last Fri: 125X9.5,8 (done before chins)

Today: 120X8,6 (done after chins)

The point being that, at higher weights each week, I'm at least maintaining (and occasionally increasing) the number of reps I'm getting which I take as a pretty good indicator that I'm getting stronger.

Overall, another really good workout. I'm getting so strong (well, relatively speaking), I'm starting to scare myself. Also, curioiser and curioiser (said Alice to the grinning Cheshire cat), I'm in ketosis again tonight after just one workout same as last week. I can figure one of two reasons why:

1. Something about this workout in terms of volume or intensity is getting the job done faster. I can't see this as the primary cause since my Bodyopus dieting workouts were similar in scope.
2. My body is adapting to ketosis so well that it wants to get into

ketosis faster. Jeff Krabbe has told me that he can get into ketosis almost instantly after a year on the diet so this is where I tend in terms of reasons why.

3. Change to Super Vanadyl Fuel: I can't see this as the big determinant since I was in ketosis this time last week when I was using generic GNC vanadyl sulfate.

Tuesday: Hmm, back out of ketosis this morning. Here's what I think may be happening. We know that liver glycogen will keep blood glucose up and prevent us from getting into ketosis. That is the genesis of the no sucrose/fructose rule during recarb. I think my Monday workout may be intensive enough to drive blood glucose down immediately after workout but my liver still has some glycogen in it which is being released during the night so that I'm not in ketosis in the morning.

Well, back in ketosis this afternoon. I might have been there earlier today but I didn't get a chance to check until 6 pm after my appointments. Off to torture the ex.

Also, got the ex to take a pic tonight for comparison to the one taken at the start of this mass phase (July 4). I look a bit bigger. Chest is definitely fuller and there's only a slight decrease in definition. And, once again, it's 11:45 pm, I have a 6:30 am appointment tomorrow and it's time to go the hell to sleep. Something tells me this new internet provider is going to be my downfall since it's so much easier to use. I can waste even more time in front of this idiot box computer than I ever imagined. Wonder if I can personal train my clients by modem? Hmmm.....

Wednesday: Started the morning (and, with a 6:30 am appointment, it was truly morning) with the carb spike. Same 'foods' as last time (1 small bag candy corns, 1 small bag jelly beans with 1 scoop Ultra fuel and 1 scoop Designer whey protein). I decided to do it first thing for three reasons:

1. After an all night fast, catabolism can be up and shuttling some high quality protein into the system with an insulin spike can't hurt things.
 2. It gives me longer to get back into ketosis.
 3. I was up this morning and didn't have time to scramble any eggs.
- *Note: this is the real reason I did the spike first thing this morning.

Note: Back in ketosis at 5pm. I actually 'felt' when I made the shift back over again. I was dicking around on Medline looking up research on strength training and sort of got sleepy and bleary eyed. Then I was fine again. This is pretty consistent with what happens about day 2 of the diet when I first hit ketosis.

Wednesday evening: Ok, lifts still going up but effort is increasing

big time. The only thing that didn't improve too much was DL's. I decided to keep them at the same weight (225) all cycle since there's already a lot of lower back overwork from squatting twice a week and SLDL's on Monday. All other lifts went up and I either got the same reps at a higher weight or more reps at the same weight as last week.

Thursday: Strange, I don't seem to be in ketosis this morning. Could have been that cucumber with salt I had last night before bed or who knows what. IAE, I'm not overly concerned about it since I still don't see that ketosis is absolutely critical for gaining mass on this diet. Nothing else to report. No cardio, ate and ate and ate some more. Starting to get psyched for the carb up tomorrow night. (Let's do the happy junk food dance.)

Friday: Nothing to report today. Still eating same foods and in ketosis. My low back is a bit sore from deads Wed but I'll be squatting with a belt tonight. Still taking 2 grams glutamine pre and post workout.

The workout: Well, much to my surprise, squats (my best lift) hung tonight. Got the same weight/reps as on Monday but I expected an increase.

Several possible contributors to this:

- a. Lifted earlier in day. The ex got off work early today so we went to the gym early
- b. Lifted with the ex. I'm used to lifting alone these days. Changing stuff like this can throw me off.
- c. Overworking legs/low back. Wouldn't surprise me. MF tried to talk me out of Wed DL's but I was stubborn and kept them in. May drop them back to 185 next week. Also considering changing the workout scheme a bit for the next 3 weeks of the mass phase.

All other lifts went up which is why I think the squat thing is more of a local problem than any type of systemic overtraining. Dropped leg extensions from the workout today to allow quads a bit more recovery. Started the carb-up right after workout.

Saturday: Carbed and watched the Olympics. Women's diving on tonight. Is it me or are the divers just not on this year. No one, not even the Chinese, were ripping entries into the water. Ah, well, still pretty cool to watch those triple twisting 1.5 flips from 33 feet up.

Sunday: It rained here all day so no skating this morning. Just carbing and watching the Olympics. Probably a good thing as it gives my quads more time to recover for tomorrow. Stopped carbing at 6pm with the standard Ultra Fuel/Designer shake to get a bit of an insulin spike and drive BG down. Also, took 2 tabs Twinlab Super Vanadyl Fuel.

See ya next week.

Lyle McDonald, CSCS

Subject : You guessed it: Bodyopus week 14

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Date: 1996/08/04

Continuing in the vein of last week, here's the continuation of Lyle's Unofficial Bodyopus FAQ where I try to answer (for the last time?) some of the more common questions I'm having to field about the diet.

Well, in response to my request for any unanswered questions to be included in the FAQ, Brian Bucher sent in the following:

"How important is vitamin supplementation? In your week 6 and week 9 posts you "mentioned it in passing" but haven't really said whether it's that necessary or not. I'm sure some of it would depend on how you eat during the phases but it might be difficult to eat enough non-carb high-vitamin foods."

Good one. In my quest to discuss all the esoteric supplements, I forgot about the basics. Most of the books I've read regarding the ketogenic diet (Bodyopus, Anabolic Diet, Atkins, the Epilepsy Diet book) seem to agree that a bare minimum of a one a day multi-vitamin as well as extra calcium should be consumed while on the diet. Now, while some may use this as ammunition that ketogenic diets cause nutritional Deficiencies, please consider that most American's eating a typical mixed diet are typically deficient in one or more nutrients and, according to research into intake patterns, literally no one gets adequate calcium and a supplement is recommended to almost everybody. And, while the research is still somewhat equivocal over whether or not hard training athletes need more micronutrients than they get from a mixed diet, I'd put forth that future research will support the idea that this is the case. In any event...

I would suggest at the bare minimum a basic one per day multi-vitamin/ multi-mineral (I use Twinlab Daily One caps without Iron) as well as a calcium carbonate supplement (600-1200 mg/day depending on dairy consumption on the diet). I suggest using the cheapest calcium carbonate you can find, usually the supermarket generic.

For those who are concerned about the high amounts of saturated fats which may be present (although it's more than feasible to do a ketogenic

diet on unsaturated fats, it's just not as fun since you can't eat lots of steak all the time and you have to smother your chicken in mayo) additional anti-oxidants may be useful. Also, there is data that some of the muscle damage and soreness following training is caused by free-radical production so it's feasible that anti-oxidants might prevent some of this. I generally take
Vitamin C: 1-3 grams (more on training days to help control cortisol)
Beta-carotene: 10mg/day
Vitamin A: 5k IU/day (And, yes, I know vitamin A can become toxic if you're not careful. And I know that beta-carotene will convert to Vitamin A if needed. But, beta carotene seems to have anti-oxidant functions independent of vitamin A so I take both.)
Vitamin E: 400-800 IU/day of alpha-tocopherol

Others like selenium, NAC, CLA or whatever might also be useful additions but it starts to get expensive fast. I stick with the standard ACE stack (Vitamin's A, C, and E). Again, I typically buy the supermarket generic or the GNC "Buy one get one half off" product.

10. Ok, the topic of this week's FAQ is Bodyopus Recomposition. I find it strange that this is where people are having the most problems since it's the one area of the book that Dan went into the most detail about. Go figure. First, let me say that I'm not going to give out the exact recomposition numbers. Buy Bodyopus if you want the details. What I will answer is some of the main questions I'm getting in terms of food choice, protein intake, fat intake, supplement intake, etc.

10a: Should I still be dieting during the carb up? Should I still consume 25% protein and 75% fat in addition to all my carbs?

No, no, no. The whole point of the carb-up is to supersaturate the muscles with carbs, water, electrolytes etc. This takes lot of calories so you shouldn't be dieting. And, fat should be minimised to keep insulin levels high. I'll discuss fat requirements and where I think the fat should go next week.

10b. How many calories should I eat?

It's determined by the recomposition guidelines. Again, I'm not giving you the actual numbers. Go buy a copy of the book. Sufficed to say, it's a shitload compared to what you're eating during the week. I'm pretty small and I, according to Dan's numbers, I have to put away about 3500 calories or so of just carbs in the first 24 hours. When you've been on 1500 calories during the week, that's a lot of food.

10c. How much protein should I consume during recarb?

Dan brain farted and didn't mention this in the book. He told me 20 grams of protein with each meal but I think that's overkill

for most considering the massive calorie intake on the weekends. (In case you're unaware, protein requirements are related to total caloric intake. As calories go lower, protein needs go up. Hence, as calories go up, protein needs go down. If you're eating high quality proteins like whey, egg and milk protein, amount is even less critical.) Go for 1 gram per pound of bodyweight divided across the 12 meals and you'll be fine. Soluble protein powders will help with insulin secretion during the first liquid carb meals.

10d. What do you eat at each meal? Understand that I only followed Dan's recomposition plans during the first weekend. After that it was eat until I got water retentive (NOT anal retentive although that applies to me as well) and then stopped. Depending on how much I pigged out, it happened anywhere from 24-30 hours after I started carb-ing. Dan gives general food categories during recomposition but no specific examples. Here's some excerpts for a diet I set up for a competitive bodybuilder in Texas. Again, not giving you the numbers, just examples of food choices for each of the meals.

Meals 1-4: liquid simple sugars with added soluble protein
Ultra Fuel (glucose polymers with some fructose since I have yet to find a pure glucose powder, I've been told Carboplex is pure maltodextrin but I can't seem to find it at the local health food store). It's too bad that the nasty glucose solution they use for the oral glucose tolerance test isn't commercially available. It would be a perfect, albeit nasty tasting, substance to consume.
For protein: A soluble protein powder. I use Designer but any will do.

Meals 5-8: liquid simple sugars and solid high GI carbs (i.e. corn flakes)
More ultra fuel with Designer protein
Some type of grain cereal cereal. All are high in sugars so I'm not sure if corn flakes would be exceedingly better than Lucky Charms as long as the amounts were equal.

Meals 9-12: starches with liquid simple sugars
Ultra fuel/designer for liquids
baked potatoes, rice, whole wheat bread for starches, you could probably get away with higher GI foods like rice cakes and grain type bars this early in the carb up since insulin sensitivity is still high

Second 24 hours:
Meals 1-4: more solid carbs and proteins
rice or potatoes and chicken or tuna would be good starch choice

Meals 5-8: relatively normal food (rice, potatoes, pasta)
Still sticking with rice/potatoes etc.

Meals 9-12: high GI liquid carbs
Revert back to Ultra fuel with protein powder

I talked about supplementation of vanadyl, chromium, and magnesium during last week's FAQ. Sufficed to say you need to take all three during the carb up to ensure maximal glycogen supercompensation. If creatine is your thing, during the recarb is a good time to use it. I can't since it makes me sick. Maybe I'll try it again some point.

Next time: more recomposition confusion and some other titbits that occur to me.

Lyle

On that note, anyone else out there have major unanswered Bodyopus questions that I didn't answer in either the diaries or this FAQ? If so, please send them so I can get the damn things answered once and for all. I guess I'll have to get my WWW page put together now so I can archive this sucker somewhere.

Oh, one thing more about skinfolds, calipers, etc. As pointed out by MF, there was a bit of inconsistency in my reports on how Lange calipers (the US norm) and Slimguide calipers (the Canada norm and what I've been using) compare measurement wise. At one point, I reported that Slimguide gave consistently larger measures and, on another, I said it gave smaller. The problem was that I was taking measures with the Slimguide calipers at home before eating and using the Lange calipers at work at a different time of day. So, to answer the question once and for all, I took my Slimguide calipers to work and took measurements there. The results were:

Site	Slimguide	Lange
Pec	3	4
Abs	21	21
Iliac	14.5	16
Thigh	6	7
Sum3*	30	32

Sum of pec, abs, and thigh. Iliac only included for comparison purposes.

So, on me at least, the Slimguide give slightly smaller readings but it's within the error of measurement on each caliper (+- .5-1 mm). Ultimately, it's not any big deal as long as I'm consistent (see the Bodyopus week 2 diary for details) in my measurement and use the same caliper (Slimguide), under the same conditions (upon awakening Monday morning). Then, at least, the results are directly comparable. Or, if someone has 70,000\$ they want

to loan me, I'll buy a BodPod for my room and use that instead. (FYI, the BodPod is a new machine that estimates body composition by how much air you displace. Very similar to underwater weighing but you don't have to dunk your head underwater and it's faster. If they made it so it would do BMR at the same time, now that would be cool.)

The body composition log: Taken with Slimguide calipers first thing Monday morning upon awakening.

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	7/8	152	3	20	10	6	29	8.5	12.75	139.25
Mon	7/15	157	3	20	11.5	6	29	8.5	13.35	143.65
Mon	7/22	159	3	21	13	6	30	8.5	13.5	145.5
Mon	7/29	162	3	24	15	6	33	9.4	15.2	146.8

Notes: Ok, bodyfat percentage is creeping up which is to be expected. As stated before, I'm trying to gain mass until either 6 weeks is up (this is week 4) or I hit 10% bodyfat. Then I start cutting again. I find it hard to believe that I put on 2 lbs. of fat and only 1.3 lbs. of FFM this week but I did seem to eat a lot more than usual. I'll have to sort of keep tabs on calorie intake from here on out. I also know I wasn't in ketosis all the time last week so that might have been a contributing factor.

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

My week at a glance:

Sunday: Just carbed today since it was raining and biking/skating was out of the question. Have decided to change my training routine a bit for the next 3 weeks of this phase. Will be dropping all isolation movements (leg extension, pec deck, tricep kickback, incline hammer curl) and concentrating solely on the compound movements. Will also be adding sets (for a total of 3-4 per exercise). After two progressive warmups (at approx. 50 and 75% of the first 'real' set), I will jump to the heaviest weight of the day to failure. On each succeeding set, the weight will be decreased by 5% (to take fatigue into account) in an attempt to keep reps (and time under tension) the same. An example would be tomorrow's squat workout:

Warmup: 135X8

Warmup: 225X5

1st set: 285X8 (basing this on 265X10 last Friday)

2nd set: 270X8 (285X.05 = 15 lbs. so I subtracted 15 lbs. from 285)

3rd set: 255X8

4th set: 240X8

Additionally, since antagonistic bodyparts are being worked during each workout (more or less), I will interleave exercises to allow for more recovery time as well as what's called reciprocal inhibition (when you work one muscle group, that muscles antagonist relaxes through some neural mechanism. This, along with longer times between sets, helps with recovery. More recovery means heavier weights and, up to a point, heavier weights means more progress.). That is, instead of the typical format of:

Incline bench, rest, incline bench, rest, incline bench, rest, incline bench
chins, rest, chins, rest, chins, rest, chins, rest

Interleaving has you do:

incline bench, rest, chins, rest, incline bench, rest, chins, etc, etc.

I will pair:

incline bench/chins

flat machine bench/rows

barbell curl/tricep pushdown

Squats could conceivably pair with calf raises but I don't work my calves.

I do work my tibialis anterior (speed skating thing) but will probably just sit and try not to hurl between sets of squats.

Technically, you'd probably pair delts with lats (more or less antagonistic) but that would mean training back three days per week on my current split. So, delts get worked by themselves. If you wanted to get really anal, you could pair front delts with rear delts, forearm flexors with forearm extensors, abs with low back, etc, etc. I'm anal but I'm not that anal. Not yet at least.

So, the new workout look like this. Please note that number of sets are flip flopped on Friday for upper body. That is, I'm doing 4 sets of chins and inclines on Mon and only 2 sets of rows and machine bench but it is reversed on Friday. Thus, each movement gets relatively equal work per week.

Mon	Wed	Fri
Squat (4/6-8)	DL (2/6-8 or 5X5)	Squat (2/6-8)
Leg curl (2/6-8)	Overhead press (4/6-8)	Leg curl (2/6-8)
Chins (4/6-8)	Barbell curl (4/6-8)	Seated row (4/6-8)
Inc. DB bench (4/6-8)	Tri. Pushdown (4/6-8)	Machine bench (4/6-8)
Seated row (2/6-8)	Forearms (whatever)	Chins (2/6-8)
Machine bench (2/6-8)	Abs (whatever)	Inc. DB bench (2/6-8)

Monday: Nothing exciting today to report. Same food, same supplements, same whiny clients (can you tell I'm getting burnt out personal training?).

Monday workout: Another good workout chalked up. Felt really strong

and all lifts increased yet again. There's something to this weekend carb-loading shit. I may be gaining some fat but I'm definitely getting stronger. Squatted 285X8 (ok, 7 since I cut one short) which is a new PR for me. Keeping this rate of progression, I'm set to squat 325 for reps in 2 weeks (305 next Monday, 325 in week 6). My previous best is 325X1 so that's a pretty big increase for 6 weeks of training. Hope my low back can hold out. This new workout was pretty tough but good. Took longer than I wanted but only because the guy I was squatting with wanted to do more talking than squatting (which is why I don't have a regular workout partner). Still in and out of there in just over an hour. Interleaving bodyparts really helps to give great recovery while keeping workout time down. For anyone using multiple sets, I highly recommend the application of this technique. My chest, back, and even arms were pumped and felt thoroughly worked after this workout. Couldn't even clasp my hands behind my back and raise them to stretch out pecs like I usually can. I *feel* huge (which is, after all, what really matters. Who cares how big you are or how much you can lift? How big you think you are is all that counts.)

Tuesday: Fat. Protein. Protein. Fat. Any questions? Actually, I hit ketosis again this afternoon. I still can't understand why I'm hitting ketosis earlier with a 2 day carb load than I did only carb loading for one day. Very strange. Not complaining mind you, just curious as to why.

Wednesday: Great weather for a funeral today. Not joking or trying to be melodramatic here. Got to go watch a cousin get buried. He had a massive brain hemorrhage Friday night and they pulled the plug Sunday afternoon. I only mentioned it in that it did have some effect on my diet. Started this morning with the standard jelly bean, candy corn carb load (plus 1 scoop Ultra Fuel and one scoop Designer for a total of 1000 carb calories). Then appointments. Then the funeral. I wasn't able to eat anything after the carbs this morning so I went to the funeral hungry which was bad. Well, a particular Arab tradition is to have what's called a 'mercy meal' after the funeral. It's basically a time for all the cousins to get together, try to be happy, and basically get rid of any ill feeling they may have towards the deceased or each other. The basic idea being that, in a time of sorrow, there's little point in being pissed off at each other or the deceased. A nice idea if you ask me. IAE, it would have been very rude of me to just eat some steak at the mercy meal (Arabs have another weird tradition about food. If you don't eat what you're offered, it's very rude) so I went ahead and had a carb meal and even some dessert (I'd say that this was out of grief or something but the truth is I wanted an excuse to eat some sugar). As expected, I'm not in ketosis as of this evening but we'll see if I can re-establish after tonight's workout.

Wednesday workout: Wow! Another great workout. As has been happening since the first week of this mass phase, all lifts increased by leaps and bounds. Got almost identical reps with heavier weights

(jumping out of necessity 5 lbs. on DB's, trying to keep jumps at 2.5 lbs. on barbell movements). And, I'm back in ketosis tonight. Not sure what it is about this particular workout scheme but it's working wonderfully so far. Hitting ketosis faster, getting f-ing strong (well, for me) in the gym. Making progress far faster than I have before. I'm one happy camper.

Thursday: More fat and protein today. Wasn't in ketosis this morning but did go back in by this evening. Spent some time with this girl I'm *still* trying to get together with. Still nothing going on there. How depressing. Is why I'm sitting working on this thing at 12:30 at night instead of sleeping and recovering like a good boy. Since I have early appointments tomorrow, it's time to go the hell to bed.

Friday: Normal food intake today. One thing I've forgotten to mention (and will explain next week) is that I switch to primarily unsaturated fat during the day before I start carb-ing. Had two bananas two hours before my workout (even though I'm not doing the depletion workout, I might as well burn some glycogen out of there with the workout). Took 2 grams glutamine and some vitamin C 30 minutes prior to lifting.

Friday workout: Damn! Another great workout. Despite being tired and having my low back bother me a bit, all lifts (even squats went up). I raised the weights on everything from last Friday's workout and proceeded to get the same reps as last time if not more. Sing the Rocky theme song with me "Getting strong now. Gonna fly now." Of course, I'm still a little weenie relative to most of the mass monsters at World Gym but I do seem to be getting some respect because I do work as hard if not harder than 99% of the people in there. I really push on all sets, fighting that last rep isometrically until it goes up. Not taking squats quite to failure as it's a pain in the ass to get the bar off the pins and up for the next set, but I'm damn close. As usual, started the carb-up with 50 grams Ultra Fuel, 20 grams Whey protein, 2 tabs Twinlab Super Vanadyl Fuel, and 2 grams glutamine. Then I went to the supermarket and started the real carb-up. Donuts, pop tarts, you get the idea. Sing the Rocky theme with me "Getting fat now. Eating junk food. Gonna pig out"

Saturday: What do you think I did today? Ate carbs and slept. A typical Saturday. I'm feeling really sluggish. I think it's time to start adding a bit of cardio in to get ready to start cutting in 2 weeks.

Sunday: Nothing exciting today. Went for a very easy 45' skate this morning with friends. Continued carb-ing until 6pm as usual. I feel and look fat today in the mirror but we'll see what the calipers show tomorrow morning. I've learned the hard way that the mirror can easily lie. The calipers give objective data. 2 more weeks of pigging out and then the real fun of dieting starts again. Oh, joy. Finished carb-ing at 6pm as per usual and it's back on the bacon and lard bandwagon

(well, not really but you know what I mean).

See ya next week.

Lyle McDonald, CSCS

Subject : The Bodyopus experience week 15

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Date: 1996/08/11

Continuing in the vein of last week, here's the continuation of Lyle's Unofficial Bodyopus FAQ where I try to answer (for the last time?) some of the more common questions I'm having to field about the diet.

10. Ok, the topic of this week's FAQ is Bodyopus Recomposition. I find it strange that this is where people are having the most problems since it's the one area of the book that Dan went into the most detail about. Go figure. First, let me say that I'm not going to give out the exact recomposition numbers. Buy Bodyopus if you want the details. What I will answer is some of the main questions I'm getting in terms of food choice, protein intake, fat intake, supplement intake, etc.

10e. How much fat should I consume and when should I eat it? This question actually came up on Paul Moses' Training and Nutrition list. I hadn't really thought about it before but had to try and answer it. As far as amounts, in passing (the last sentence of the recomposition chapter in Bodyopus) Dan recommends an intake of Essential Fatty acids of 15% of your maintenance caloric intake. Let's figure maintenance for most of you animals at 3000 calories. 15% is 450 calories or 50 grams of fat for each 24 hours.

Here's the conundrum. The point of the recomposition is to crank lots of carbs into the muscles along with high insulin levels to stimulate an anabolic growth response. And, Dan mentioned that the lack or presence of fat can break or make the carb-up. So, no getting around it, we have to take some in (as an interesting contrast, in the Anabolic diet, it is recommended that fat be kept a about 30-40% of total calories, even on weekends. I haven't quite figured out the discrepancy there yet but I'm working on it).

But, we know that the addition of fat to a meal will slow gastric emptying and lower the insulin response to a given amount of

carbs. A real dilemma. I *think* I have the solution.

We know several other things:

1. Immediately after the depletion workout, insulin sensitivity is super high so we can have (and need) super high insulin levels to take advantage. So, we don't really want the fat here. (On which note, I wonder if it's really important to take vanadyl, etc with these first meals. Insulin sensitivity is sky high and they might not even be needed. I could see a good argument for saving the insulin agonists for later in the day when insulin sensitivity is starting to drop.)
2. Right before stopping the carb up, we want to get an insulin spike to cause hypoglycemia. Fat taken in here would limit the insulin response. So, none during these meals.
3. The middle meals are when we are taking in considerable amounts of carbs but insulin sensitivity is lower. So, slowing digestion and lowering the insulin response would likely be a good thing to avoid fat spillover. The fat goes here.

So, for the 24 meals of the recarb, I would suggest:

Meals 1-4: no fat

Meals 5-8: 1/8 of your daily fat intake with each meal (about 5-6 grams or a bit more than 1 teaspoon for the example person above)

Meal 9-12: 1/8 of your daily fat intake with each meal

Meal 13-16: 1/8 of your daily fat intake with each meal

Meal 17-20: 1/8 of your daily fat intake with each meal

Meal 21-24: no fat.

I could see some rationale for putting more of the fat on meals 9-12 instead of 5-8 since insulin sensitivity *should* be higher earlier on but, for now, I think the above recommendations should be fine. And, recomposition is already anal enough.

10f. Should your diet on Friday be any different than the rest of the low carb days? This is actually a question I asked of Dan but it bears discussion. Recall that the point of the whole recomposition is to rebuild any lost muscle tissue and take advantage of the increase in insulin sensitivity due to carb depletion and the high rep workout we all love so much. Well, we know that saturated fats decrease insulin sensitivity. Now, during the week, this isn't an issue as there aren't any carbs in the diet. No carbs means no insulin. But, on Friday we are getting ready for the big carb-up. Now, we don't know how long saturated fats decrease insulin sensitivity. It could be minutes, or hours or days (if it's days, we're fucked from the get go and it doesn't matter).

So, I wondered if there should be any decrease in saturated fats or increase in the use of insulin sensitizers (chromium, etc) on Friday prior to the workout. Dan suggested that saturated fats be avoided on Friday up to the workout. So, I've been shifting from my normally high intake of saturated fats during days 1-4 (Mon thru

Thu) with eggs, butter, cheese, red meat to unsaturated fats. A typical Friday eating pattern up to the carb up is:

Breakfast: designer with olive oil and flax oil (replaces eggs in butter)

Lunch 1 and 2: pink salmon with mayo

Since the Friday workout happens early evening, my normal dinner meal of ground beef is avoided. Thus, no saturated fats prior to the carb-up. A bit of a pain in the ass but probably worth it.

10f: The depletion workout. There seems to be a bit of confusion regarding this workout. Common complaints are of nausea or poor carb ups (no pump during the weekend). What I typically see happening is one of two things:

1. Too short of rest periods between sets. This is a long workout, not an impossible workout. Take 1' between sets and 5' between circuits. Also, try to alternate either upper and lower body exercises or pushing and pulling exercise or both. A good circuit might be:
leg press/squat, bench, row, leg curl, shoulder press, lat pulldown, calf raise, tricep pushdown, barbell curl, abs, low back rest 5' and repeat.

Or, any exercise choice where you group

1. a leg exercise
2. a pushing exercise
3. a pulling exercise

2. Too much weight. Not sure how this got confused but this workout is not supposed to cause any muscle damage. Heavy eccentrics (and the damage they cause) cause short term insulin insensitivity, not what we want for optimal carb up. I've found that using about 50% of your best 6-8 rep weight is about right for 10-20 reps. And, you should not be taking these sets anywhere close to failure. Stop at least 3 reps out if not more. And, keep the cadence of each rep fast but controlled (a 1/1 cadence works pretty well).

Also, some have asked when do you know when to end the workout. Dan mentions that it typically takes 2 hours and anywhere from 2 to 20 sets should be done. It's hard to describe the feeling but you just 'know' when you're done. If you've ever done long endurance training and bonked, this is the feeling you are looking for. It's sort of the same kicked in the balls feeling you get the first week on Bodyopus. Alternately, simply use a drop in reps with a given weight as an indicator that your glycogen is getting depleted. So, if on leg presses I went:

- 1st circuit: 300X20 (3 reps short of failure)
- 2nd circuit: 300X20 (3 reps short of failure)
- 3rd circuit: 300X20 (getting harder)
- 4th circuit: 300X18 (stopping 3 reps short of failure)

I'd take that as a signal that my quads were getting pretty well

depleted. If other body parts will still strong, I'd keep working them until the same thing happened. I imagine that larger muscle groups will take more sets to glycogen deplete than smaller but it's just a guess. On the one hand, larger muscles store more glycogen. On the other, for a given absolute effort, they should use as much glycogen as a smaller muscle would for a given amount of time. Oh yeah, repeat sets of 20 in the squat aren't very fun.

11. Water during recarb. This is something that just occurred to me this last weekend. Again, understand that the purpose of the recarb is to ramjet glucose, electrolytes AND water into the muscles to cause the swelling that seems to promote protein synthesis. We know that for every gram of glycogen stored, an additional 3-4 grams of water is stored as well. We are storing shitloads of glycogen in the muscles on the weekends. For optimal growth stimulus, we need shitloads of water. Lets say that over 24 hours I am taking in 600 grams of carbohydrate and that 100% of it is going into the muscles. At 4 grams of water per gram of glycogen, we need 2400 grams of water for optimal results. Now, 1 gram of water is equivalent to 1 cubic Centimetre (cc) of water. And there are 29.573 cc per oz of water. So, $2400 \text{ cc} / 29.573 = 81 \text{ oz}$ of water. 8 oz of water is 1 cup so that's 10 cups of water in the first 24 hours. Now, most foods have some water content and you will be getting some in your first liquid carb meals. But, for the sake of maximal recarb, I would suggest drinking as much water as you can put down (assuming you're not carbing up for a contest and have to worry about water spillover to the skin). You'll just eliminate (i.e. pee) whatever's extra anyhow.

For the same reason, I would suggest staying away from caffeine or any other diuretic during this period. Also, Dan has pointed out that diuretics will deplete sodium which is necessary for optimal recarb. As talked about last time, you probably can use some time off the ECA stack anyhow.

Next time: more recomposition confusion and some other titbits that occur to me.

Lyle

On that note, anyone else out there have major unanswered Bodyopus questions that I didn't answer in either the diaries or this FAQ? If so, please send them so I can get the damn things answered once and for all. I guess I'll have to get my WWW page put together now so I can archive this sucker somewhere.

The body composition log: Taken with Slimguide calipers first thing Monday morning upon awakening.

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	7/8	152	3	20	10	6	29	8.5	12.75	139.25
Mon	7/15	157	3	20	11.5	6	29	8.5	13.35	143.65
Mon	7/22	159	3	21	13	6	30	8.5	13.5	145.5
Mon	7/29	162	3	24	15	6	33	9.4	15.2	146.8
Mon	8/5	164	3.5	24	16.5	6	33.5	9.4	15.4	148.6

Notes: Ok, I don't know what I did last week but it worked much better. Instead of gaining 2 lbs. of fat and 1 LB of lean body mass, I gained a little fat and almost 2 lbs. of lean body mass. Perhaps the new workout format is the culprit. Eating and carbing stayed about the same (still just force feeding most of the time) so that's the only thing I can figure. IAE, this gives me at least one more week of mass gaining (and perhaps also week 6) before I start cutting again. Which is fine with me since dieting sucks the big hairy one.

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

My week at a glance:

Sunday: As stated last week, I did an easy 45' skate this morning with friends. Continued carbing until 6pm and then switched back to fat and protein. Got a long day at work tomorrow but have to get psyched for 305 (or might go 315) on the squat bar tomorrow.

As described last week, I changed my workout for last and the next two weeks. It is:

Mon	Wed	Fri
Squat (4/6-8)	DL (2/6-8 or 5X5)	Squat (2/6-8)
Leg curl (2/6-8)	Overhead press (3/6-8)	Leg curl (2/6-8)
Chins (4/6-8)	Barbell curl (3/6-8)	Seated row (4/6-8)
Inc. DB bench (4/6-8)	Tri. Pushdown (3/6-8)	Machine bench (4/6-8)
Seated row (2/6-8)	Forearms (whatever)	Chins (2/6-8)
Machine bench (2/6-8)	Abs (whatever)	Inc. DB bench (2/6-8)

After two light warmups (50 and 75% of top weight for the day), I jump to the heaviest weight I'll use on that exercise to failure. Additional sets are taken at a 5% decrease from the original weight with the goal of getting identical reps to failure on each set. Additionally, antagonistic bodypart exercises (i.e. chins and inclines, flat bench and cable row) are alternated with about a 1:30 rest in between. This gives 3'+ rest between exercises without doubling the length of the workout.

(See last week for a longer discussion of this workout.)

Monday: As always, nothing new to report. Same food, same supplements, same everything. But, what a fucking day I had. Appointments started at 7:45am and ended at 6pm (I did have some breaks in there). It didn't help that I stayed up until 1 am last night wasting time on this idiot box computer. After appointments, I trained the ex-girlfriend (7:45pm-8:45pm). Then I trained myself. I was exhausted before I ever started warming up but that's the life of a jock. I Took my standard 2 grams of glutamine 30 minutes prior to the workout along with 600 mg of calcium (Pasquale suggests that it may help prevent fatigue as it's one of the major ions involved in muscular contraction) and 500 mg Vitamin C (to help with muscle inflammation).

Monday workout: I should lift when I'm exhausted more often. Although I may have crippled myself in the process, I had another in a string of incredible workouts. Poundages and reps are jumping on all exercises. Squats went from 285X8 last Friday to 315X5. I probably jumped the weight too quickly but I didn't feel like loading the bar to 305. And, 3 45's per side looks manly. Considering a past PR of 315X1 or 2, I'm pretty happy about this. On incline DB's, I bumped from 55's to 60's (also a PR) with no drop in reps (got 8 last time and 8 this time). This is the first time I've ever handled weights this big in this exercise. Chins are almost back to bodyweight (next Monday workout). Even machine bench and cable row (worked as secondary exercises to chins and inclines) went up. Don't know what it is but something is working. I likely won't be able to move tomorrow but it's worth it.

Also, back at home and I'm in ketosis yet again within about 30 hours from stopping carbs. I wish I'd known about this workout while doing my cutting cycle. An extra day in ketosis would have been a very nice thing when I was cutting. Also, I didn't take any Super Vanadyl Fuel yesterday or today to see what would happen. No chromium or magnesium either (other than what's in my multi-vitamin). And I still hit ketosis the same as the past 4 weeks. Which suggests to me that they just aren't that important in the grand scheme of things. Of course, we'll see if I'm in ketosis tomorrow.

Tuesday: Now, most Tuesday mornings I've dropped back out of ketosis. This morning I didn't. All I can figure is that the longer I'm on this diet, the quicker I'll get into ketosis and the easier I'll stay there. Decided to go for a 20' easy walk pre-breakfast for two reasons:

1. Burn some ketones
2. Start reconditioning my body to do cardio for when I start cutting in about 10 days. I'm looking sooo forward to it. BTW, that's sarcasm. While I dread the idea of restricted calories and daily pre-breakfast cardio, I look forward to getting below my previous best 8.5% bodyfat and having the abs that I've wanted for the last 7 years or so. And,

this time, come hell or high water, it will happen. To badly paraphrase Scarlett O'hara in "Gone with the Wind": With grog as my witness, I will never be fat again.

Or something like that. Gotta go take a shower and go hurt some people.

Actually, when all was said and done, I probably put in about an hour of cardio today. I forgot that I get to walk with clients (we don't have friggin treadmills at the Wellness center). more than I would have liked but all very low intensity.

My lower body is torched today. Quads screaming. Hams decimated. Ass blasted (hee, hee, anyone seen the Butt Blaster machine at your gym?). My low back is killing me (squats and deads make Lyle a sore boy). It feels like I tweaked something in my right glute (feels like a pinched nerve. I hope it's not sciatica) with my overly macho antics last night (just so you know, jumping from 285 to 315 lbs. on an exercise is not generally a good idea. But, I'm a dumbass sometimes and what little testosterone I have takes over my brain. Also, 315 looks a lot cooler than 305 (umm, that's 2 45's a 35 a 5... Oh, fuck it just put 3 wheels up there). And, I've only got 5 more workouts in the mass cycle before I start cutting bodyfat. Training will likely change (not sure what at this point since I haven't decided on what dieting protocol I'm to use. More details coming later) but will definitely be lower volume. I hurt. I need a hug. Or some jelly beans would do nicely. Can't they make these with nutrasweet?

Wednesday: Did my normal carb-spike with jelly beans and candy corns today (also with 1 scoop Ultra Fuel and 1 scoop designer whey) first meal of the day. My buddy MF (who I have incorrectly listed as Marc Flores in this diary. I have apologised to Marc Florio in private email but wanted to give him due credit here) suggests that I at least try doing the carb spike with a maltodextrin/glucose polymer to compare results and see if I get back into ketosis faster. Thing is, I still can't find any of the shit. All the supplements I can find have some amount of fructose in it which makes it no better or worse than jelly beans and they taste better. Maybe next week. My whole body hurts and I really don't want to lift today. But, considering that I felt this bad on Monday and had one of the best lifts of my life, I'm ready. Took my 2 gms glutamine, 600 mg calcium, 500 mg Vitamin C 30 minutes before.

Wednesday workout: Well, tonight was tough. I can tell that the workload of the Monday workout is taking it's toll. Decided to go for it on deads today. Jumped from 225X8 last week to 275X5 and then ramped down 3 sets. Jumped too high on shoulder DB presses but bis and tris got stronger. I'm still trying to figure out why my DB presses are only 10 lbs. less than my incline DB presses. Either my DB press is very good (for me) or my inclines

really suck. Same difference either way. I was pretty nauseous during this workout. Something tells me that dinner of two chicken breasts with mayo was not the best thing to do 2 hours prior to workout. I managed to get through it without yacking but I sure didn't enjoy the workout. Oh, yeah, back in ketosis before the workout which doesn't usually happen (usually takes until after). Which supports my theory that the body gets used to being in ketosis and gets there more easily as time passes.

Thursday: Nothing to report today. Ate protein and fat. I hate my job. I still don't have a girlfriend or a life. At least I have the carb-up. Oh, I did sit down and do some calculations for my cutting cycle to see what I have to accomplish to come in at 5-6% bodyfat by the end of the 10weeks I allotted (i.e. the length of the MM2K contest). The numbers look bad and I don't think I've given myself enough time. Gonna be another kamikaze ketogenic diet cycle for Lyle. At least I know what I'm doing this time around.

Friday: This morning was a typical day. Switched to unsaturated fats as described above. Going to train the ex early (she's doing a shortened depletion workout) and then train myself. Decided to get out of ketosis before training so took approx. 50 grams carbs with 18 grams whey about 1.5 hours out. Even though I'm doing a tension workout, I still want to make sure I burn glycogen for fuel instead of ketones. Also, MF has suggested in private email that ketogenic workout, on top of not being fun to do, may compromise progress. Too complicated to get into here.

Friday workout: Workout went ok. This was the first one I've had were things didn't go swimmingly. Made a bit of progress on squats (a rep here and there), machine benches and rows went well as did inclines and chins. I imagine by the 5th week of full tilt training, I'm a bit overtrained anyhow. One more week (weak?) of the heavy stuff and then I start cutting. Since I know this cutting cycle will go perfectly (since I got to iron out all the problems in the first 10 weeks), I'm already planning my next mass phase. Think I'll do a more traditional powerlifting cycle along the lines of:

Mon: squat, calf raise, abs

Tue or Wed: bench, delts, tris

Fri: deadlifts, rows and curls or chins and shrugs, grip

and go 5X5 on all exercises. If you're not familiar with the 5X5 system, it's a time tested method of adding strength and size. You do 2 progressive warmups of 5 reps and then 3 work sets of 5 reps with the same weight.

Whenever you can get all three work sets for 5 clean reps, you add weight.

Very basic. Very simple. Very effective. The only thing to watch out for with the split above is overtraining the low back. For those pulling major weight in the DL, you might be better off only training it to maximum every other week.

Saturday: Guess what I did today. Ate carbs. Slept. Ate some more carbs. Slept some more. The only thing I don't like about this diet is the total non-productivity on the weekends. I just eat and sleep all day.

Sunday: Well, after much debate, and looking at some calculations, I've decided to start cutting this next week (i.e. tomorrow). To start the process, I went for a long, long skate this morning after dropping some ECA plus tyrosine. After 5 weeks without it, I was definitely wired. Put in about 2.5 hours total with several friends. Probably a bit too much but it was all at very low intensity. Continued carbing until 6pm to make sure I have enough carbs to get through tomorrow's workout. I'll discuss some dieting options and what I'm going to be doing this following cutting cycle in next week's update.

See ya next week.

Lyle McDonald, CSCS

Subject: My bodyopus experience.week 16

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Date:

Ok, I want to take a break from compiling the Bodyopus FAQ to talk about what I'm planning to do diet wise as I start my cutting cycle. For those of you just tuning in, this is actually my second attempt at using Bodyopus as a fat loss diet. The first 10 weeks are archived in my home computer so you can't find them on the net. I'm working on my WWW page so that they will be accessible. IAE, I used those first 10 weeks to basically figure out how to get my body to respond to this diet. That is, how to get the most fat loss without losing any muscle, how to train, what to eat, what supplements to take, etc. Having that experience under my belt, this dieting phase should go off without a snap.

The basic Bodyopus cycle is 5 days of no carbs with 2 days of carbing to refill glycogen stores in the muscle and rebuild any lost muscle. Due to a big picnic/party this weekend, that's what I'm going to do. I'm going to drag my ass out of bed early tomorrow morning so I can get in a weight workout before I train clients. Hopefully, I can get into ketosis by late tomorrow and have 4 full days to burn ketones.

I am setting calories at 1500 per day at a bodyweight of about 165. 1500 may be a bit on the low side but that allows a bit of leeway and extra calories I'll get in Jell-O, celery, and other non-counted foods.

Since I have no problem eating the same damn foods day in day out, I just figured out a 1500 calorie diet that also adhered to the 1.5:1 ketogenic ratio (1.5 grams of fat per gram of protein or carbs). If this is all greek to you, drop me mail and I can explain the ketogenic ratio and what it's implications are.

Breakfast: 3 pieces string cheese, 4 tbsp cream cheese (my dairy phase)
Lunch: 1 cup pink salmon with 4 T may (my fish phase)
Dinner: 1 scoop designer whey protein in heavy cream (my whey phase)

No, no red meat. Long story but our kitchen is being remodelled and I don't have anywhere to cook meat so it's the no-cooking Bodyopus diet for me. What I did was go to the store tonight and buy just enough food to cover the above meals for 5 days. This was:

4 packages of string cheese (20 strips of which I ate 5 tonight leaving 15)
1 package cream cheese (22 tbsp of which I need 20)
4 cans pink salmon (each has just less than 2 cups in it, yes this is actually a bit more than I need but the salmon was on sale 2/\$3.00 so I had to get an even number)
a container of heavy cream

Basically, this is my food for the week. Whether I eat it all tomorrow or ration it out for 5 days, this is all I get. Much easier way of cutting calories
if you ask me.

Supplement wise, I'm jumping back onto the ECA bandwagon after 5 weeks of none (I AM GOING TO BE WIRED). Although I know better and really should taper up, I'm not going to and will jump immediately into:

Ephedrine: 50 mg (AST Dymatedrine)

Caffeine: 200 mg (Generic caffeine pills)

Aspirin: 81 mg (generic aspirin pills)

L-tyrosine: 1 gram (Twinlab l-tyrosine capsules)

Cayenne: 80,000 heat units (Nature's Way Cayenne Pepper)

three times a day: upon awakening, at lunch and no later than 4 pm.

I have decided to ditch yohimbine since I never really noticed a bit of difference while taking it last time. I've got some DMSO on order and may try the yohimbe/DMSO topical solution described in this month's MM2K.

Also, l-carnitine was just too damn expensive and I'm still not convinced it's needed, even on this diet. So the above is my thermogenic stack from hell. On cardio only days, I will add 500 mg of Citrimax to the stack (actually, I'll be replacing one of the ephedrine pills and the caffeine pill with 3 caps of Twinlab Diet Fuel which contains 500 mg Citrimax, 20 mg of ephedra, and 200 mg of caffeine in the form of kola nut).

Other supplements will be vitamins, anti-oxidants and that's basically it. I'd like to use some creatine since I'm not going to be eating any red meat but I get sick whenever I use it.

During the carb-up, I will discontinue the ECA stack but add 750 mg

of Citrimax 4 times daily 30 minutes before meals to prevent spillover and keep appetite in check.

Ok, that's week 1 and then I recarb next weekend. After that, I have basically 3 weeks to get shredded. I'm going to experiment again with longer periods of ketosis. I'm actually just going to maintain the above diet for 12 solid days and not carb until after that. In the most recent MM2K, Duchaine suggests that as a possibility although effects on muscle loss are unknown. And, unfortunately, there's no way to know if you've lost mass until AFTER you recarb and do body-comp.

Finally, training. Truth be told, I'm still not sure what I'm going to do training wise. This week is standard Bodyopus meaning two heavy workouts Mon and Tue and then the depletion workout Friday afternoon. During the 2 week period of ketosis, I'm not sure what I'm going to do but I've got another week to figure it out.

Lyle

Also, if anyone else out there have major unanswered Bodyopus questions that I didn't answer in either the diaries or this FAQ? If so, please send them so I can get the damn things answered once and for all. I guess I'll have to get my WWW page put together now so I can archive this sucker somewhere.

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Mon	7/29	162	3	24	15	6	33	9.4	15.2	146.8
Mon	8/5	164	3.5	24	16.5	6	33.5	9.4	15.4	148.6
Mon	8/12	164	3	25	17	6	37	10.4	17	147

Notes: Well, it looks like my decision to start cutting was the right one. Bodyfat has hit 10%, which was the cut-off point. Also, while it may look like I lost muscle from last week to this one, recall that fat free mass also includes water and glycogen and I likely am more dehydrated from my 2 hours of skating yesterday. Ok, with the above in mind, to reach 5% bodyfat, here is the amount of fat I need to lose.

Goal BF% = 5% = .05

Goal weight = FFM / (1-Goal BF) = 147/.95 = 154

Total weight loss needed * = 164 - 154 = 10 lbs.

* This assume two things:

1. No muscle is being lost or gained.
2. All weight loss is coming from fat stores.

So, 10 lbs. in 5 weeks is doable on this diet I think, especially knowing what I know about it. So, it's time to go get started.

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

My week at a glance:

Sunday: Went for a long, long easy skate this morning (2+ hours total) with different friends. Have decided to start cutting this week instead of waiting so I'm not so rushed this time. Am going to try to get into ketosis by tomorrow so I have 4 full days to burn ketones and lose some fat. I am really optimistic about this cutting cycle. I feel that I have the fat loss part dialled in after my first foray into Bodyopus. Gonna combine the same successful elements as my last cycle: the thermogenic stack from hell, lots of low intensity cardio, caloric restriction. Basically, all the keys to the fat loss puzzle. Dieting sucks but the end is worth the means. Last time I fell short of my ultimate goal of 7% bodyfat. This time I will not fall short of my goal of 5-6% bodyfat (or whatever is reasonable within my genetic limitations).

Training will change a bit as mentioned in the prologue to this week's update. The same basic thing as below but Wed's workout will be done Tuesday morning and Fri's workout will be replaced with the depletion workout.

Mon	Wed	Fri
Squat (4/6-8)	DL (2/6-8 or 5X5)	Squat (2/6-8)
Leg curl (2/6-8)	Overhead press (3/6-8)	Leg curl (2/6-8)
Chins (4/6-8)	Barbell curl (3/6-8)	Seated row (4/6-8)
Inc. DB bench (4/6-8)	Tri. Pushdown (3/6-8)	Machine bench (4/6-8)
Seated row (2/6-8)	Forearms (whatever)	Chins (2/6-8)
Machine bench (2/6-8)	Abs (whatever)	Inc. DB bench (2/6-8)

After two light warm-ups (50 and 75% of top weight for the day), I jump to the heaviest weight I'll use on that exercise to failure. Additional sets are taken at a 5% decrease from the original weight with the goal of getting identical reps to failure on each set. Additionally, antagonistic bodypart exercises (i.e. chins and inclines, flat bench and cable row) are alternated with about a 1:30 rest in between. This gives 3'+ rest between exercises without doubling the length of the workout.

(See week 14 update for a longer discussion of this workout.)

Monday: Got up and went straight to the gym. Took the thermogenic stack from hell as outlined above and I was flying. Thought I was going to throw up there for a bit but felt better once I got to the gym. Oh, yeah working legs, chest and back as outlined above.

Monday workout: Today's workout can only be categorised as strange. First, let me say that there were a few differences between last Monday's workout and this one.

1. Did too much cardio yesterday. 2.5 hours of skating left my legs a bit fatigued and probably depleted some glycogen that would have been better left for today's workout.
2. Different time of day. I've seen research on endurance athletes that Performance is maximised if it occurs at the same time of day as training is done. This may have to do with some type of resetting of Circadian rhythms or something. I typically train about 9 pm at night so getting into the gym at 7:30 am was a bit of a change. I actually prefer to train mornings as it's less crowded but appointments have prevented that until this week.
3. Ephedrine etc. In addition to it's thermogenic qualities, the ECA stack is also a stimulant. Many individuals use it just for that reason and not for increased fat burning. You would think that being more stimulated would help workouts but that's not always the case. Research into maximum performance shows that there is some optimal arousal level (don't get dirty now) for performance. Too little stimulation and you do poorly. Too much stimulation and you do poorly (can't concentrate). Somewhere in the middle you have your best workouts. Thing is, the amount of stimulation needed depends on factors like the person involved (ever notice how some lifters have to scream and yell and smack themselves around to get fired up while others just generate a kind of focused intensity) and the activity (obviously something like gymnastics where control is required would require a bit less stimulation than something like wrestling or football).

Ok, the workout. Well, everything went up except for inclines which went down. That's why I characterised this workout as strange. All of the above changes would be expected to have a systemic effect. That is, if I was too overstimulated or too fatigued from skating, I'd have expected the whole workout to have gone poorly. But, it didn't. Even with tired legs, I increased from 315X5 in the squat to 325X5 (my old PR was 325 for one really shitty looking rep). Chins, cable rows and machine benches all went up. Inclines went backwards. Last Monday I got 60X8+1 with some help. So, I figured I'd go 65 and get at least 5 or 6 reps. Got someone to help me get them to the top but I couldn't do it. It was just like my arms wouldn't work at all. Backed down to 60's and even then could barely get them to the top position to start the set. Only got 6 piss poor reps at that. Like I said, very strange. The only guess I can even fathom is that maybe, just maybe the arm swing I use

while skating (it looks like a front raise but coming across the body) tired the clavicular (upper) portion of my pecs and that was the problem. But, I'm seriously guessing. IAE, I'm not too worried. I've been cranking along at max. in the gym for almost 15 weeks now and am surely approaching a state of overtraining. Since I'm back to dieting, the goal is to simply maintain strength/size while I cut up. Then I'm taking a week or two off (or just easy) from the gym, going to take a little vacation, and then hit my next cycle.

Oh, yeah, I hit ketosis again after the workout. This is 12 hours after stopping carbs so something is going on here. Either it's this particular workout (I put the ex through it last night to see if that was the case) or it's just a long term adaptation to ketogenic diets. I've heard this reported from others (i.e. the longer they do this diet, the quicker they enter ketosis after stopping carbs) so this is where I put my money. Can't complain as it means I get almost 5 full days (instead of a normal 3) to burn ketones and lose fat. Sing it with me "Getting ripped now. Getting lean now." (Sung to the tune of the Rocky theme.)

Went back to the gym tonight and did 45' of easy, easy cardio at a HR of 120 on the Lifecycle. Well, it's 11:45 pm and I'm still awake. My resting HR is about 96 (normally about 50 or so) so there's still some ECA in my system. Have to make sure and take that 3rd dose earlier from here on out.

Tuesday: Ok, today was tough. Real tough. To fit my workout into the proper Bodyopus pattern, I had to move the Wed workout to today. This is to ensure that muscle trauma (which impairs the carb up) is gone by Friday before the depletion workout. Which means that I trained squats heavy last night and deads heavy today. Showing a strange streak of self-preservation for once, I lowered my DL weight back to 225 for one set of 8 for maintenance. My low back is sore but sore is a lot different than injured. My other lifts for this day (delts, bis, tris) also suffered as they all got worked indirectly last night. I will likely have to change my workout split back to:
Mon: legs, back, bis
Tue: chest, delts, tris
and just drop DL's for now for the remainder of the cycle. The only potential problem I see is that I know my current Monday workout is getting me into ketosis immediately which will hasten fat loss. I don't know if legs, back and bis would do the same. I guess I'll find out next week.

Nothing else exciting today. Appetite still blunted as hell from the ECA so 1500 calories was no problem. I'm finding a good strategy by eating very small amount during the day (when the ECA is really blunting hunger) and saving some calories up for later in the evening for when it starts to wear off.

Went for an easy, easy 30' walk with the ex tonight to burn some ketones. Serious cardio (i.e. pre-breakfast) begins tomorrow. I'm really excited. Can't you tell?

Wednesday: I'm tired, sore and cranky. Took my modified Diet Fuel thermogenic stack and then went walking for an hour about 30 minutes later. Nice easy pace, put in about 4 miles so figure about 400 calories. Came home to a yummy breakfast of string cheese, cream cheese on a stalk of celery (ka-runch), and some Crystal Light. I hate dieting. Nothing else to report today. Tired, cranky, sore, and getting hungry. Almost gave in to the urge to do more cardio tonight but I learned my lesson last time about overtraining. It's 9pm, I'm exhausted and I'm going the hell to sleep.

Thursday: Went for a short 30' walk this morning. Was supposed to go do more cardio tonight with the ex. but she weenied out. And I'm too tired and unmotivated to drive out to the gym alone and ride the bike. make it up tomorrow morning before the carb-up. Have decided to go ahead and do the entire 2 hour, f-ing depletion workout. Having learned my lesson last time about getting too much fat spillover, I'm going to make sure I get as much glycogen out of there as I can. One interesting observation: ketosis is deepening. Was trace first couple of days but I tested it tonight and it's almost into the darkest range it can get. I find this strange since that indicates that my body is generating more ketones than I'm burning. But, since calories are so low and I'm not eating much, I can only assume that these ketones are coming from stored bodyfat. Just gonna keep pissing that fat off of me.

Friday: Have decided to start taking Friday body composition measurements again to check for spillover from carbng.

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	8/12	164	3	25	17	8	37	10.4	17	147
Fri	8/16	155	3	25	15	6	37	10.4	16	139

Well, this shows a pretty similar trend to last time. First skinfold to drop was the superiliac with little change in abdominal skinfold. The last 10 weeks, abs were the last to start responding to the diet. Still, absolute fat mass went down although I can't believe I dropped a full 9 lbs of weight in 5 days. Must have been holding a hell of a lot of water last Monday. Time to go do some cardio.

Started the morning with another 30 minute walk to burn some ketones after dropping the citrimax, ECA, tyrosine, cayenne stack.

Otherwise, a typical Friday on this diet. Ate more or less as described last week meaning I eliminated saturated fats as much as possible. Since I didn't have time to make my tuna in mayo goop, I just mixed

up the following instead to drink throughout the day until the depletion workout:

2 scoops Ultra Fuel:

2 TBSP flax oil

2 TBSP olive oil

some Crystal light fruit punch

water

About 2 hours out from the depletion workout, I had two bananas to get 50 grams of carbs and get out of ketosis.

Friday workout: A pretty typical depletion, high rep, boring as shit circuit workout. Did about 5 total circuits in about an hour 15 minutes. I was done for the day and started the carb with some Ultra Fuel/Whey. So far this carb up has been a bit different than before. I'm not pigging out like I have in the past. During the first 10 week dieting cycle, I tended to eat as much crap as I could simply because I could. The end result was less than satisfactory bodyfat losses. During the mass phase, I ate all I could on the weekends to stimulate anabolism and gain some muscle. But, hitting the carbs this weekend, something is different. Either I've gotten over the novelty of 'getting' to eat carbs or my mindset is changed regarding the diet. After the last cycle, I know what is necessary to get where I want to be. That requires some self control both during the week (let's face it, 1500 calories is not a lot of food, especially when 75% of it's from fat) and on the weekends. Said self control wasn't there during carb-ups before but it is now. Strange. And, now, bedtime.

Saturday: Just plain carbs. As mentioned above, my carb up was much more controlled this time around. Just sort of ate when I was supposed to and didn't feel compelled to either starve or gorge myself. A good day. A bit tired. It's always tough to cold turkey ephedrine, etc. after 5 days at high doses but I figure my system needs some time off of it.

Sunday: Nothing to report today. Didn't go skating or anything because it decided to rain. Continued carbing until 6pm and then made the switch back to protein and fat. This weekend really gives me hope for getting where I want to be. I just didn't feel the previous compulsion to eat and eat and eat. I don't feel overfed or bloated or anything. Have to see what the body composition record says tomorrow.

See ya next week.

Other notes: I want to thank everyone who's made suggestions as to where to find glucose polymers. Between the previous post where I complained about not being able to find them, I found a source of very inexpensive pure glucose polymers. It is a mail order company called Beyond A Century and carries all manner of goodies for the

well-supplemented athlete. They have generic, cheap vanadyl sulfate, DMSO, glucose polymers, very inexpensive creatine, even guar gum which I've wanted to use during carb ups for a while. I highly recommend their products and their service is excellent. I'm not going to give the number out here since this is supposed to be My Bodyopus Experience, not My Bodyopus Advertising space. If you really want to find them, you can. Check any issue of Powerlifting USA or the back of the bodybuilding mags. They *may* have a web site but I don't know for sure. Another company that I highly recommend is The Power Store Great service, excellent product selection, a real no-bullshit attitude and great prices are a winning combination. Again, not going to put the number here. If you want to try them out, you can find them if you want to. Other supplement purchases (FYI) are done either at GNC (which I typically dislike) or Good Life Health Food Stores.

Oh, I gotta GNC funny from the other day. Was in there getting tyrosine for the ECA stack. Anorexic clerk asks "Did you see the OKG on sale? It's anti-catabolic." I nod and go "Yeah, at about 10 grams per day in one dose." He shuts up. A minute later, even skinnier guy comes in (makes me look huge and I'm a runt) and asks "Where is the stuff you take that makes you gain weight when you are lifting weights?" I almost looked at him and said "What do you mean? Food? It's down the street at the supermarket." But, I restrained my normally acerbic tongue. This guy will probably add Weider Mega Mass 4000 to his routine of leg extensions and cable crossovers and wonder why he's not growing. Maybe he needs some OKG. Hey, it's on sale.

Lyle McDonald, CSCS

subject: I can't think of a cute intro: Bodyopus week 17

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Date: 1996/08/25

Ok, got something a bit weird to talk about. A long, long while back I made the comment about water intake as it related for fat loss on a ketogenic diet. Since ketones are excreted in the urine, I asked whether or not peeing more (by drinking more water) might not hasten fat loss. At the time, I sort of pooh-poohed the idea thinking that ketone production must be related to energy utilisation. But, MR got me thinking about it some more and I came across some research (for an article that I talk about below) that might suggest that it's possible. Here is the idea from the research I came across:

1. Ketone production and utilisation is related inversely to ketone

concentration in the blood. This is part of why non-diabetics don't have to worry about ketoacidosis. The body keeps a very tight control on ketone levels in the blood. So, except for pathological conditions, runaway ketoacidosis should not occur.

2. Urinary KB concentrations are the difference between production and utilisation. Typically, they comprise no more than 10% of production. Thus, I think that high urinary concentrations are indicative of high blood concentrations. This may explain why an extremely high fat meal depends the colour on the ketostix.

3. The epileptic kiddies are kept in deep ketosis by keeping their water somewhat restricted (to 75% of normal levels) and keeping their intake of fat extremely high (a 4:1 ratio of fat grams to protein plus carb grams. I suggest a 1.5:1 ratio for most Bodyopus dieters). This is necessary to control the seizures but the goal of these children is not fat loss.

Ok, the pieces are all there.

Higher blood ketone concentration prevents further production.

High urinary concentrations probably indicate high blood concentrations. This is an inference based on the fact that urinary ketone levels represent the difference between production and utilisation.

Water restriction will increase ketone concentration (which is ultimately just the relationship between the absolute amount of ketones and the volume of the blood. Dehydration reduced blood volume which would lead to higher concentrations).

Ok, so if we force water down, we should conceivably lower ketone concentrations in the blood which will allow more ketones to be produced so more fat is lost. This is predicated on the absence of ketones from dietary fats. Additionally, the increased urine production may help to carry more ketones out of the system.

Anyone got thoughts on this? It makes sense to me but there is some nagging thought in the back of my mind that my logic is, well, illogical.

Ok, one other strategy for fat loss on ketogenic diets. The typical recommendation for fat loss is to spread daily calories into multiple meals. While this strategy is most likely excellent for a normal diet, I'm wondering if it's the best choice for a ketogenic diet.

Recall that ketones can be made from either bodyfat or dietary fat. And, as stated above, high blood ketone concentrations will inhibit production of more ketones (i.e. from bodyfat). So, eating lots of high fat meals throughout the day would likely keep blood ketone levels high from the dietary fat which would inhibit the production of ketones from bodyfat.

Additionally, ketones can't be stored as fat. So, if dietary fats convert 100% to ketones (I don't know that they do), a high calorie, high fat ketogenic meal should simply raise blood ketone concentrations.

So, what if you were to spread your daily food into several larger meals per day (say three which is what I'm doing now). If these three meals Occurred over 15 hours, that would give several hours in-between meals where ketones could be derived from bodyfat since blood ketone levels would not be elevated from dietary fat intake. Additionally, high water intake during this time, in addition to keeping you full between meals, should lower blood concentrations and further promote production of ketones from bodyfat.

On that note, anyone else out there have major unanswered Bodyopus questions that I didn't answer in either the diaries or this FAQ? If so, please send them so I can get the damn things answered once and for all. I guess I'll have to get my WWW page put together now so I can archive this sucker somewhere.

The body composition log: Taken with Slimguide calipers first thing Monday morning upon awakening.

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	7/8	152	3	20	10	6	29	8.5	12.75	139.25
Mon	7/15	157	3	20	11.5	6	29	8.5	13.35	143.65
Mon	7/22	159	3	21	13	6	30	8.5	13.5	145.5
Mon	7/29	162	3	24	15	6	33	9.4	15.2	146.8
Mon	8/5	164	3.5	24	16.5	6	33.5	9.4	15.4	148.6
Mon	8/12	164	3	25	17	8	36	10.4	17	147.0
Mon	8/19	163	3	25	15.5	6	34	9.4	15.3	147.7

Notes:

Key:

BF% = body fat percentage

FM = fat mass in lbs

FFM = fat free mass (total weight - FM)

My week at a glance:

Sunday: Nothing to report. It rained so I didn't do any cardio. Just enjoyed the last of my carbs and then back to protein and fat at 6pm.

As described last week, I changed my workout for last and the next two weeks. It is:

Mon	Wed	Fri
Squat (4/6-8)	DL (2/6-8 or 5X5)	Squat (2/6-8)
Leg curl (2/6-8)	Overhead press (3/6-8)	Leg curl (2/6-8)

Chins (4/6-8)	Barbell curl (3/6-8)	Seated row (4/6-8)
Inc. DB bench (4/6-8)	Tri. Pushdown (3/6-8)	Machine bench (4/6-8)
Seated row (2/6-8)	Forearms (whatever)	Chins (2/6-8)
Machine bench (2/6-8)	Abs (whatever)	Inc. DB bench (2/6-8)

After two light warmups (50 and 75% of top weight for the day), I jump to the heaviest weight I'll use on that exercise to failure. Additional sets are taken at a 5% decrease from the original weight with the goal of getting identical reps to failure on each set. Additionally, antagonistic bodypart exercises (i.e. chins and inclines, flat bench and cable row) are alternated with about a 1:30 rest in between. This gives 3'+ rest between exercises without doubling the length of the workout. (See last week for a longer discussion of this workout.)

Monday: Well, this was the first test day of many. Since I was dieting pretty hardcore last week, I was curious to see how the workout would fare. For reasons to be discussed, I stuck with the legs, back and chest split I've been on most of this cycle. Volume was decreased to 3 work sets on squats, 2 work sets on leg curls, and 2 work sets on everything else. My goal from this point on is to simply maintain or even increase strength (weight or reps) in all my movements. I take this as a de facto indicator of muscle mass maintenance as relying on body composition records can be difficult due to the major changes in water weight on the diet.

Monday workout: Did this workout in the am again in an attempt to speed entry into ketosis and get to burning that fat. Squats were probably the hardest lift of all. I barely managed to get the same reps with 325 but I was also making a point to make each rep deeper as I have been cutting them a bit shy of parallel. Also, since all my cardio work is done with the lower body, legs seem to overtrain more rapidly than upper bodyparts. All other lifts increased with the exception of chins which maintained. For some reason, I just can't seem to get past a certain level on chins no matter what I do. Strangely, and counter to other weeks, I was not in ketosis first thing after this workout. It looked in the right light like I was barely trace but I was negative the rest of the day. This might be related to the decreased volume not lowering blood glucose as much or something about my carb-up (I had a bunch of strawberry jelly on Sunday and fructose preferentially glycogenates the liver). I stayed up late writing an article I've been researching on (guess, just guess what it's about) the cyclical ketogenic diet looking at even more research, metabolic effects, etc which will appear (assuming I made tomorrow's deadline) in the Scientific Bodybuilding Journal. They've got a WWW page Around here somewhere and I believe my buddy Vince (who's not an ACE trainer but is a PT) will send you a sample copy if you ask him nicely. Mention my name though and he'll probably charge you \$5 since my article is so damn late. It was just one of those deals that

the more I looked, the more things I found to look up. I think, given more time, I could have been even more thorough (read: anal retentive) in My treatment of the cyclical ketogenic but this article covers the gist of the physiology behind it. Think I'm gonna give a copy to some of the RD's where I work just to piss them off. Time for bed.

Tuesday: Nothing exciting today. Did 45' of easy cardio on the bike this morning before breakfast. HR about 120 or so.

Wednesday: Started off the day with 50' of easy walking first thing in the morning. have decided to move the normal Wednesday workout (deads, delts, arms, grip, abs) to Thursday to better space things out. Since I'm not carbing this weekend, soreness from this workout is irrelevant.

Evening: Well, I was bored, pissed and depressed (long story and this isn't supposed to be My dissatisfaction with my life experience). so, against better judgement, I went back to the gym to do more cardio. Wasn't really in the mood to sit and spin on the bike so I did 5 Sixty second intervals on the Stairmaster with a 5' warm up and cool down and then another 10' on the Lifecycle at level 1. Did this while listening to one of the MM2K Audiotape interviews with Dan Duchaine. A bit outdated (1993) but still good stuff. Am now listening to the interview with Sisco and Little about Power Factor Training. Probably critique it here before too long.

Thursday: Time to lift again. Since I've decided to stay in ketosis for the next two weeks, I thought it might be prudent to get some carbs in my body. So, about an hour before training, I mixed 50 grams of maltodextrin (glucose polymers) with a scoop of designer and drank. The carbs tasted very good and I will likely have this pre-weight workout until the grand carb-up in 8 (ugh) days. Took my thermogenic stack from hell and went to it.

Considering several things:

1. This workout is normally on Wednesday instead of Thursday.
2. I've been dieting for almost 2 weeks.
3. I've been overdoing cardio as usual.

I'm surprised this workout went as well as it did. I managed to at least equal if not better all lifts from this workout last week.

I'm taking maintenance of strength as an indicator of muscle maintenance since LBM calculations are too dependent on body water levels.

Oh, yeah, back in ketosis after training although, to be honest, I doubt I ever even got out.

Evening: Considered going to do cardio but thought better of it. My article on the cyclical ketogenic needs a major rewrite (special thanks

goes out to DM for tearing me a new asshole on the article and criticising the hell out of it. Actually, I do thank him. He's the most critical human being I've ever met in my life and he tells me when I'm making bad extrapolations or am just full of shit. It's tough on the old ego but has made me a much better writer and thinker) anyway so I stayed in.

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	8/12	164	3	25	17	8	37	10.4	17	147
Fri	8/16	155	3	25	15	6	37	10.4	16	139
Mon	8/19	163	3	25	15.5	6	34	9.4	15.3	147.7
Fri	8/23	154	3	23	15	6	32	9.4	14.5	139.5

Notes: I'm surprised that I'm not dropping more fat than this. Still, considering my overall metabolism (morning temp is still around 97.2) 3 lbs of fat in 2 weeks with no loss in FFM (you have to compare Mon to Mon and Fri to Fri for it to mean anything) is nothing to sneeze at (ah-choo). Was hoping to achieve the magical 2 lbs./week but I guess it's not going to happen without severely overtraining cardio. I mean, more than I already am. Also, I have been told by many that their fat loss efforts are much better if they don't carb every weekend but rather every other. Figure it's a full 48 hours where

1. you're in ketosis
2. you aren't risking spillover to fat cells by eating too damn many carbs.

The question is still whether too much muscle will be lost. I guess we'll know soon enough.

Friday: Dropped the thermogenic stack from hell and off to do cardio. On that note, I wonder if it's even really necessary to do pre-breakfast cardio on this diet. The whole idea behind doing cardio before eating is to take advantage of lowered insulin levels and partial glucose and glycogen depletion, both of which are daily occurrences on this diet. Thing is, if you ate a big ketogenic meal before cardio you:

1. would probably throw up
2. perhaps only burn off the ketones from the food you ate rather than ketones from bodyfat.

#2 is what worries me. So, pre-breakfast cardio it is.

Note: This weekend will be possibly the hardest of the diet. During the week, it's easy not to eat since I'm at work, or training or whatever. On weekends, I tend to sit at home like a lump. For lack of anything better to do, I'll eat. So, in addition to the cardio I'll be doing in the mornings, I'm going to have to get out of the freaking house so I don't screw my diet. I can see some definite changes in definition. My 2.5 pack is back and I'm starting to lean out nicely. Hopefully the extra days in ketosis plus an overabundance of low-intensity cardio will do the trick this time. Bodyfat is 5% or bust.

Saturday: Dropped the stack from hell and walked for an hour around the Neighbourhood. Got a bit nauseous about halfway through but don't really know why. Gotta find a way to get out of the house for the rest of the day so I'm not compelled to eat out of boredom. Still trying to decide on whether I should allow on biggish carb meal tonight to at least somewhat restock carb stores. While spillover is not an issue, I am concerned that once started, I may not stop. Gotta think some more about it. Since I'm doing cardio tomorrow morning anyway, I should be able to drop back into ketosis pretty rapidly. HmMMM.

Well, after much debate (who am I kidding here, this decision took as much debate as if one of the fitness models in Ironman walked up and asked me to sleep with them. Ummm, let me think...) I decided to go ahead and allow one carb meal. Here are my reasons (right, try rationalisation) for going ahead and allowing a pig out meal.

1. Umm, I need all that insulin for growth. Right, like one big meal will really make shit for difference against 12 days of ketosis.
2. Umm, helps out psychologically. Right, I did 600 ketogenic calories and two a day cardio sessions during my last dieting phase. Comparatively, 1500 calories for 12 days is a snap. The change from low carbs to carbs was tasty though.
3. Umm, metabolism boost. Ok, this one almost makes sense. 1500 calories per day is pretty damn low. One day of higher calories might help attenuate any metabolic slowdown. Of course, I could have done the same thing with protein and fat and stayed in ketosis. But it wouldn't have been as much fun.
4. A lot of people have told me they get great results as far as fat loss with one concentrated carb meal every 5 or 6 days and staying low carb the rest of the time. This is basically the Vince Gironda approach to the ketogenic diet. Yeah, that makes a good excuse, err, reason. As good as any I've found I guess.

As somebody once said "What separates man from the animals is their Ability to rationalise."

IAE, for whatever reasons I decided to let myself have a carb meal tonight. The biggest worry I had was not being able to stop once I started. Although, at this point, my food control is pretty damn good. I know what I have to do to get where I want to be so it's not as big a deal. And, I've only been dieting hardcore for 2 weeks so I'm not really deprived psychologically. The deal tonight was that I had to get a new pair of glasses (so I don't have to squint to read street signs any more). Went to one of those one hour glasses places since I had a coupon. It was at the mall. Mall's have food courts with all manners of junk foods that have lots of nice carbs in them. So, after my eye exam and getting the glasses process started, I gave myself that one hour (set by my stopwatch) to eat whatever and as much as I wanted. Actually didn't go as crazy as I thought I would. Put away a slice of

stuffed spinach pizza, a cinnamon roll and some cookies with chocolate frosting on them. Was a really nice mental break from low carb, low calorie hell. I started to feel less pissed off at the world almost immediately. When that timer went off, carbing time was over and that was that. I probably put away 1500 calories or so (hell, maybe more) in that time period.

To do damage control I took 1 gram of Citrimax (to shunt carbs away from fat synthesis and towards glycogen storage) 200 mcg of chromium, and 250 mg of magnesium. If I'd had it, I would have dropped some vanadyl but I quit using it since it wasn't really doing anything for me.

As a whim, decided to check for ketones later tonight. With all those carbs, I didn't figure on there being any present. Well, fuck me if I wasn't showing moderate levels of ketones. So, I must have managed to spike my blood sugar enough with all the simple carbs To put me right back into hypoglycaemia. Which is cool since it means that morning cardio will already be done in ketosis. And now it's time to sleep and dream of cut abs and fitness models, not necessarily in that order of priority.

Sunday: Started the day without about 2 hours of easy, easy skating on an empty stomach after the stack from hell. No, it's probably not terribly prudent to do that much cardio since muscle loss may occur but it burns a shitload of calories and fat so that's ok too. Just gonna put away my standard 1500 calories today (may bump it up a bit since I probably burned a good 800-900 calories skating) and then get ready to start next week with more dieting. It will be interesting to see how tomorrow's Squat workout goes as far as poundage and such. Ketosis workouts aren't very much fun. Cardio is no biggie but weight training is definitely harder in ketosis.

See ya next week.

Lyle McDonald, CSCS

Subject: My server wouldn't let me post: Bodyopus week 18

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Date: 1996/09/03

Well, I'm plum out of topics to discuss for Bodyopus, or ketogenic diets, or the FAQ. I'm sure there are unanswered questions out there so feel free to send them to me and I'll do my best to answer them. I'm hoping to get my home page set up (even if it's shitty looking) so that my diaries, and the FAQ and other stuff are available somewhere other than via email from me.

So, instead, I want to bore you with what a shitty week I've had. This may seem a bit off topic but I think you'll see how it ties in to some things. And, this is meant to be My Bodyopus Diaries (or whatever you want to call it) and I've included personal stuff before. Let's just say that I've done myself proud in really being able to piss people off this week. I have truly reached a new zenith in that ability. If you don't want to wade through the soap opera that I see my life as, just page down to the line of dashes, that's where the weekly report starts.

#1. Example 1: I think I make an allusion to it down below but I may have deleted it in some feeble attempt to show some good taste. I've had an interesting experience developing over the past 4-5 weeks that came to a rather abrupt end this week. Due to my involvement on a certain mailing list (to be discussed in #2), I made contact with a girl (yes, Lyle met a girl) and we started discussion things about ketogenic diets, etc, etc. Well, somehow this started to get personal with questions about what I looked like, BF%, etc and she asked me to send some pics. I sent her the JPEG's (you know, the ones I never got uploaded but will have on my home page) from the end of my last dieting experience. She couldn't decode them through email so I sent them on disc. Still couldn't decode. Anyway, our conversations became much more personal, intimate, etc, etc. We seemed pretty well matched intellectually, emotionally, etc. She sent me pictures but hadn't seen any of me. Well, in the interest of Fairness, I finally got around to just going and getting colour prints of My Jpeg's to send to her and did. Suddenly, like over one weekend, the tone of our conversation changed from very friendly, flirty, &c to very curt and tense. Basically, after our discussing all manners of possibilities for meeting, the future, etc, she comes out and tells me we'll never be more than just friends because I'm not her type. So I ask, what is her type. Basically, tall, big dumb jocks with short hair since that's the description of the first guy she had sex with (she and I had previously debated the theory of imprinting that people's choices in mates, lovers, etc. are heavily determined by early experiences sexually and emotionally. At the time, she had pooh-poohed the theory and told me that her first lover (football player) was totally unlike her choice in mates and lovers now.) But, since I'm a short, skinny little runt, all the other stuff that she found attractive in me went out the window.

As you might imagine, I was a bit less than pleased by this. I've been catching shit for my size for as long as I remember. Between a fat little kid in high school to being a runt in the gym now, I just can't win. This (as well as being on a low carb, low calorie diet) was not something

I really wanted to deal with. I was really unnecessarily cruel (which just makes me realise that I'm as much of a no good shit as everyone else out there which makes me feel even worse) to her essentially implying that she was just a shallow, petty woman. Needless to say (so why say it right?), she and I are no longer corresponding via email. Probably for the best anyway.

#2: This occurred on the mailing list alluded to above. I'm not going to name names or anything like that but it's a place to discuss nutritional strategies to gain muscle, lose fat and all that good shit. Well, as you might imagine, a lot of the traffic has dealt with the current interest, theory, and application of the cyclical ketogenic diet. I want to give a lot of credit to the moderator for even allowing such a different approach to be discussed since it is a bit out of the norm of sports nutrition (not saying that that's right or wrong, just reality).

Well, I've really tried to make any posts I've made there (or even here on mfw) less of an advocacy position on the diet and more of a "Well, this is what worked for me" type of thing. In fact, I have repeatedly told people to stick with what works for them. If high carb, low fat gets you ripped, don't put yourself through the suffering of the ketogenic diet. It's not fun and we really don't know the long term health effects of such an approach. But, I disagree with the rather typical stance taken by many that the ketogenic diet (of whatever nature) should not even be considered as a viable approach for those who can't get results with more traditional approaches.

Ok, you can probably see where this is headed. There is an individual who posts frequently to this list (and whose ideas I generally agree with and respect) who seems to have a personal vendetta against the cyclical ketogenic. No amount of data, scientific or empirical, will sway him from his unwavering belief that there is and should be only one approach (mod carb, high protein, low fat) for losing bodyfat. As you might well imagine, I take issue with that kind of rigid approach to anything (see recent rants towards Dr. Hatfield or past rants at the HIT guys from about 4 years ago for more examples). Not that I have any problem at all with the particular approach, just the dogmatic inability to even consider the merits of another approach.

Ok, the stage is set. This guy posts an article with the subject "Fad Diets" (on which note, I find it amusing how the nutritional mainstream defines "fad diet" as "anything other than what we say is true". Almost as bad as the way religious zealots define "pagan" as "anything other than what we believe". But I digress). He used as his 'proof' of the mod carb, high protein approach surveys of elite bodybuilders who, as he pointed out "know more about the art of losing fat and maintaining muscle" than anyone (on which note, anyone see pics of Dorian in a recent MMI. Fat and bloated from heavy androgen use.) He also cited epidemiological studies of pro bb's (meaning that they were surveyed on dietary habits to see if any correlation's could be made) showing that they eat moderate carb, high protein diets, blah, blah, blah. Which says nothing except that most athletes follow very similar ideas. I tried to point out that pro athletes

are also notoriously resistant to even consider other approaches to diets or training (i.e. if it worked for Arnold...)

When I and several others tried to point out the sheer folly of using pro bodybuilders as an example of anything, he got defensive and called sour grapes on all of us for "not being able to accept our own failures or that elite athletes have better training and eating habits than the rest of us." He went on to comment that the pros he interviewed thought little of the Zone, Isometric, Bodyopus type diets, that the people pushing them were just trying to make a buck, and that the people following them were just looking for a quick way out. Funny sentiments coming from a population known for its immediate acceptance of any substance (legal or otherwise) that may have the slimmest chance of helping them gain muscle. I recall rumours that Tom Platz used to drink his pregnant wife's urine while he was competing (maybe for the HCG?).

Ok, well, a bunch of us called this nitwit repeatedly on his really dumb comments. And, then were lambasted by the moderator for being close minded and intolerant of other approaches. Ummm, huh? I tried to point out that I have never made any comments about the cyclical ketogenic other than it should be considered an approach for those that other diets don't work. This was ignored. There were individuals who came down upon the RD mentioned above who don't even agree with the cyclical ketogenic approach but still told him that using pro bb's was faulty logic. This was all lost on the moderator (who really is a good knowledgeable guy but kind of missed the point on this topic IMO) who told us that we were being intolerant, &c. Well, needless to say I and several others are no longer subscribers to that list. Which should say nothing about the list other than it's not a good place to discuss the cyclical ketogenic but you can pick up some extremely good information about other topics.

On which note, I'm still trying to figure out if a cyclical ketogenic mailing list of newsgroups is feasible and doable. I think there's a lot of people out there who would like such an entity to discuss various parameters of the diet, application, individual results, etc. If such a thing comes into existence, I'll make sure and let everyone know.

#3. As one final kick in the nuts this weekend, my ex-girlfriend (about the only person I really pal around with much anymore) left town for 2 weeks. By the time she gets back, I'll be leaving for my vacation which means I probably won't see her for about 4 weeks. Not really a huge deal in the big scheme of things but it didn't do much for my overall mood this week (which started out pretty bad to being with).

Ok, I'm done rambling/ranting for now. If you want to avoid another boring account of my life, you better send me some more Bodyopus questions to put in this introductory section.

Lyle McDonald, CSCS

 The body composition log: Taken with Slimguide calipers first thing Monday morning upon awakening.

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	7/8	152	3	20	10	6	29	8.5	12.75	139.25
Mon	7/15	157	3	20	11.5	6	29	8.5	13.35	143.65
Mon	7/22	159	3	21	13	6	30	8.5	13.5	145.5
Mon	7/29	162	3	24	15	6	33	9.4	15.2	146.8
Mon	8/5	164	3.5	24	16.5	6	33.5	9.4	15.4	148.6
Mon	8/12	164	3	25	17	8	36	10.4	17	147.0
Mon	8/19	163	3	25	15.5	6	34	9.4	15.3	147.7
Mon	8/26	155	3	24	13.5	6	33	9.4	14.6	140.4

Notes:

Key:

BF% = body fat percentage

FM = fat mass in lbs.

FFM = fat free mass (total weight - FM)

My week at a glance:

 Sunday: Did about 2 hours of easy skating this morning. Ate a normal day's ketogenic dieting. I think I should have eaten more as I'm more hungry than usual tonight.

As described last week, I changed my workout for last and the next two weeks. It is:

Mon	Wed	Fri
Squat (4/6-8)	DL (2/6-8 or 5X5)	Squat (2/6-8)
Leg curl (2/6-8)	Overhead press (3/6-8)	Leg curl (2/6-8)
Chins (4/6-8)	Barbell curl (3/6-8)	Seated row (4/6-8)
Inc. DB bench (4/6-8)	Tri. Pushdown (3/6-8)	Machine bench (4/6-8)
Seated row (2/6-8)	Forearms (whatever)	Chins (2/6-8)
Machine bench (2/6-8)	Abs (whatever)	Inc. DB bench (2/6-8)

After two light warmups (50 and 75% of top weight for the day), I jump to the heaviest weight I'll use on that exercise to failure. Additional sets are taken at a 5% decrease from the original weight with the goal of getting identical reps to failure on each set. Additionally, antagonistic bodypart exercises (i.e. chins and inclines, flat bench and cable row) are alternated with about a 1:30 rest in between. This gives 3'+ rest between exercises without doubling the length of the workout. (See last week for a longer discussion of this workout.)

Monday: Ok, the second big test day of the diet. I was curious to see

how the workout would go seeing as I didn't carb this weekend. Even though I did take in about 50 grams of carbs before my last Thursday weight workout, I opted not to before this one simply to see what would happen. I was a bit sore today, especially my legs, from skating. Additionally, I crashed pretty hard yesterday skating and my right shoulder is bugging me a bit. So, it was not going to be an easy workout. Hit the thermogenics/pre-workout stimulants and hit it.

Without giving a blow by blow of the workout, I'll say that it was interesting. Squats backslid. In that, I was unable to at least reproduce the number of reps with a given weight as last week's workout. Since I'm essentially using strength in the gym as the real indicator of lean mass maintenance, my results squatting seem to indicate muscle loss since last Monday.

However, all other lifts at last maintained and a couple actually went up. Even with a tweaked shoulder, incline DB's went up (one rep) as did chins (which is usually the movement that backslides on me first). This suggests one of two possible things regarding squats:

1. I was just flat out tired from yesterday. 2 hours of skating is damn tough on the old quads and glutes. This is a pretty good possibility.
2. Localised muscle loss. Consider the fact that most cardiovascular Actives are lower body oriented. Yes, there is the rower but I find it really boring. On the bike or stairclimber, I can just zone out and read. And the Upper Body Ergometer (has anyone really ever done 20 minutes on this thing?) but World Gym doesn't have one anyhow. So, I typically limit myself to the bike (quad/glute emphasis), the Stairmaster (also quad/glute emphasis), walking (hamstrings for the most part but some glute) and skating (quads/glutes). So, I could see this as a possibility.

However, looking at body composition numbers, FFM seems to be maintaining (I'm comparing 140.4 lbs. of FFM today to 139.4 lbs. of FFM last Friday) and I simply suspect fatigue as the prime culprit.

The test will come next Monday after I carb-up this weekend to see what's going on. Since I probably won't do the sheer amount of skating I did yesterday (2 hours IS a lot) I can get a decent indication of LBM maintenance from that.

Tuesday: Dropped the thermogenics from hell and hit 30 minutes on the treadmill (3.5 mph at 5% grade) and then a further 10' on the Stairmaster. Nothing else really to report today other than I'm bored, depressed, cranky, sore, and retaining water. I have PMS.

Wednesday: Ok, another weight workout this morning. Did the typical pre-workout pill swallowing ritual of thermogenics, glutamine, some vitamin C and some calcium. As per my usual Wed workout, it was time for deads, delts, arms, and abs. Much to my surprise, everything pretty much stayed the same

in terms of weights and reps. This further suggests to me that my problems on Monday in the squat rack were more related to general fatigue moreso than any type of muscle loss.

A tough workout (moreso since I haven't had any carbs since Saturday) but a good one. Since I was bored and the gym was empty, I came up with a different DL workout. Did my warmups and a normal set at 225X8. Then thought, hmm, what if I did a 2 second pause at the bottom so I wouldn't have any momentum, and did a 2 second pause at the top to work on grip, and lowered the weight in 2 seconds and raised the weight in 2 seconds. Gee, that sounds like fun (not!). With 225, I got 5 reps and I was done. No real logic to it just seemed symmetrical to do 2 seconds on each portion of the lift. What can I say, low blood sugar makes me do goofy shit. Like go out of my way to be vindictive to somebody who would have been a good friend. But, that's the way the cookie crumbles. Mmmm, cookies.

Thursday: Well, after stimulating a catecholamine release and Non-selectively agonising my beta receptors leading to an increase in brown adipose tissue thermogenesis, I engaged in 1 hour of pre-absorptive, continuous oxidation of endogenous Energetically substrates in an attempt to oxidise subcutaneous adipose tissue. Which, translated into more or less English means that I walked for an hour after taking my thermogenics. Sorry, writing the same thing over and over gets boring. Ever see that episode of "Leave it to Beaver" (huh,huh he said 'beaver') where the Beav (Tony Mathis) writes increasingly more bizarre stuff in his diary which mom and dad find. Basically, it gets old writing:
Got up.

Went to school.

Came home.

Went to bed.

ever day. So he just made stuff up about hitchking and things like that.

So, instead of writing:

1. got up

2. took thermogenics

3. did cardio before breakfast

I'm trying to spice things up.

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	8/12	164	3	25	17	8	37	10.4	17	147
Fri	8/16	155	3	25	15	6	37	10.4	16	139
Mon	8/19	163	3	25	15.5	6	34	9.4	15.3	147.7
Fri	8/23	154	3	23	15	6	32	9.4	14.5	139.5
Mon	8/26	155	3	24	13.5	6	33	9.4	14.6	140.4
Fri	8/30	153	3	22	12.5	6	31	8.5	13	140

Notes: Alright, well even though it was hell, it seems like not carbing

last weekend made a pretty big difference as far as fat loss. Even after 3 weeks of dieting, fat loss is staying pretty consistent. And, even better, FFM isn't dropping any further. Since lifts are staying the same in the gym, I take this to mean no muscle is being lost. So, something is working right this time around.

Friday: Got up, dropped the thermogenics, and hit the pre-breakfast cardio. Instead of my normal LSD work, I did an incremental exercise test. Here's why: you've probably all heard of the new 'miracle' supplement Endurox. There have been several posts/ advertisements for it here on misc.fitness.weights. The claims They are making (increase up to 43% in fat oxidised during exercise, Decreased lactic acid build-up, all kinds of great things) are pretty far out and based on studies which have yet to be published in a peer-reviewed journal so they are neither provable or non-provable. I surfed over to their WWW site and checked out what they had to say. Lots of pretty graphs and charts of results of their own studies (the unpublished ones), etc, etc. Well, thought I, how about an unbiased test of 1 (and, yes I realise that a sample size of $n=1$ doesn't mean anything but I guarantee you I have no vested interest in the company, I bought the supplement with my own money and I'm just curious as to if it works). So, here's how I'm going to test it. They presented data indicating a lower heart rate and faster recovery following incremental endurance exercise in one of the unpublished studies. So, that's what I'm going to try to validate/invalidiate (will post the results of my tests in about 2 weeks when I'm done with them). I've also looked to see if there's even a theoretical basis for the claims they are making. There sort of is but I'm still lacking one big piece of the puzzle. So, a question to those with more biochem knowledge than I out there: what is the mechanism of niacin's blocking of fat oxidation during exercise. I found numerous studies documenting THAT niacin did this but no reasons WHY it did. I think it might be related to the histamine release (which causes, the tingling and burning sensation when you take high dose niacin) but need verification. Anyone?

In any event, I completed a 30' incremental exercise test prior to taking my first dose of Endurox as a baseline test. I'll perform the test (and give more details) next Friday and probably the Friday after that to see what changes if any occur. The Endurox WWW page claims effects in as little as three days but I figure giving it a week or two will give it more of a chance to have any effects it's going to have. Also, having established my baseline rate of fat loss for the Ketogenic part of the diet (currently about 1.5 lbs. of fat in 5 days) I will be interested to see if Endurox shifts my ketogenic metabolism further towards fat oxidation. Only time, and some experimentation will tell.

Friday afternoon: Well, after much debate, I decided to go ahead and carb this weekend. After seeing the really increased fat loss from staying in ketosis longer, I was tempted to just do one big carb meal like last weekend. But, since I'm more or less on track fat loss wise and don't want to risk any muscle loss, I decided to go ahead and carb. Did the depletion workout with the ex-girlfriend. She made 3 loops and I made a full 5 and I was done. Again, this was a totally subjective thing but I could feel my strength going by the 5th loop and, after 12 days of essentially zero carbs, I can't have much muscle glycogen left anyhow. So, I started carbing. As has been my experience this entire cycle, I didn't feel compelled to gorge myself to the point of bursting. Just ate small carb meals through Friday night and on in to Saturday. To help avoid spillover, I used Citrimax at a dosage of 750 mg (3 capsules of Naturol Pure Citrimax) 30 minutes before meals three times.

Saturday: Continued carbing but no activity.

Sunday: Got up this morning to ride with some friends. Did the thermogenic thing and put in about 25 miles in just over 90 minutes. I had originally intended to make Saturday night the end of carbing but felt that one more carb meal after this ride wouldn't hurt and would make sure muscle glycogen levels in my legs were good. And, now it's back to protein and lard for the next 12 days. Oh, goody.

See ya next week.

Lyle McDonald, CSCS

Subject: I'm almost done boring you guys: Bodyopus week 19

Copyright Lyle McDonald 1996

Date: 1996/09/08

Ok, now that I've had my cathartic moment by airing all my personal dirty laundry on an internet newsgroup, it's time to get back to the topic at hand: the cyclical ketogenic diet FAQ. SK was kind enough to send me some questions that I have no answers to other than (un) educated guesses.

1. What about the use of the glycerols that the bike freaks are hyping as part of recomp?

For those who don't know, glycerol is a new (well, not new exactly) compound being pushed towards endurance athletes. Some preliminary reports show that it causes hyperhydration of the muscle cells when taken with adequate water. Duchaine has suggested it as an alternative to pre-contest diuretics because, if taken without adequate water, it should pull water out of the body. I haven't had much time to look at this thing (although the bike mags were big into it about a year ago) but it makes sense that it could further help with the recomposition phase of training.

2. How about some more recipes like the shake that R. Ames posted? How about some liquid meal recipes for recomp as well.

Recipes are not my forte so I'll have to put out the call to all you low-carb gourmands out there. I can eat the same meals day in day out and not get bored. I mean, I have literally had pink salmon in mayo every day for lunch for the last 18 weeks. I still look forward to it. So, I'm the wrong person to ask for recipes because I'm too screwed up food wise to care if it tastes good anymore.

3. I haven't found many powders or the likes that would fit the ideal recomp meal drink; whereas the isocaloric diet works well with a metabolol, met-rx, oil blend and fiber.

Again, I'm pretty boring here. The ideal recomp meal would have pure glucose polymers with no fructose (I use glucose polymers from Beyond a Century) with some type of soluble protein (I use Designer but I'm sure there are others that would work just as well). I add guar gum powder if I want some fiber and flax oil if I want some fat. I don't see why you *couldn't* make a supplement powder like Iso³ for the Bodyopus diet but I don't see much of a point either. It might be more convenient of course but might be more expensive than just mixing the stuff together yourself.

4. If you read Hardcore Muscle newsletter, have you any thoughts on the ketogenic modifications based on blood types?

This is news to me. I don't read this newsletter (perhaps I should). Can anyone provide more information on the idea of blood types for modifying the diet? Actually, SK is sending me information on this stuff. It sounds interesting but somewhat loopy. That is to say, I wonder what assumptions are being made in terms of the metabolic effects of different blood types. But, hey, you never know. A year ago I would have told you that low carb diets were loopy as hell but look where I am now.

Lyle McDonald, CSCS

Any more questions out there. Only one more week to get them in

if you want them answered on mfw. After that I'm on vacation and then I have to figure out what I'm going to do next training and diet wise. Hmm "My Isometric Diet Experience" has a nice ring to it.

The body composition log: Taken with Slimguide calipers first thing Monday morning upon awakening.

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	7/8	152	3	20	10	6	29	8.5	12.75	139.25
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Mon	7/29	162	3	24	15	6	33	9.4	15.2	146.8
Mon	8/5	164	3.5	24	16.5	6	33.5	9.4	15.4	148.6
Mon	8/12	164	3	25	17	8	36	10.4	17	147.0
Mon	8/19	163	3	25	15.5	6	34	9.4	15.3	147.7
Mon	8/26	155	3	24	13.5	6	33	9.4	14.6	140.4
Mon	9/2	158	3	22	12.5	6	31	8.5	13.4	144.6

Notes: While it appears that I got some spillover since last Friday (fat mass was 13 lbs.), I still think this is simply an artifact from the increase in water weight. What somewhat concerns me is that FFM didn't go back up to where it was as of carbing 2 weeks ago. This suggests muscle loss (2.5 lbs seems like a whole lot though) over the 2 weeks span. Have to see what happens at the workout.

Oh, as an interesting tidbit, I looked back over the first 10 weeks to compare results. Even at only 144.6 lbs of FFM, I'm still almost a full 7 lbs heavier than last time. Which means I actually managed to put some muscle on this pitiful little frame of mine.

Oh, yeah, RA suggested I plot the above into Gnuplot to make it a bit easier to comprehend (too bad I can't plug my whole posts into a program to make them easier to comprehend) but I'm not a unix guy. Maybe I'll plot 'em through Clarisworks or DeltaGraph Pro and upload them as a graphic to the home page that I swear will get done one of these days. Hopefully before I go out of town so I don't have to answer 20 requests for missed posts when I get back. I hope nobody minds that it will be very ugly initially. Just going to cobble something really basic together so people can get at my stuff.

Key:

BF% = body fat percentage

FM = fat mass in lbs

FFM = fat free mass (total weight - FM)

My week at a glance:

Sunday: Put in 1.5 hours on the bike with some friends. My butt is numb. (Some studies in Europe found that cycling could cause short-term impotence by impeding blood flow down there. Good thing it doesn't really matter for me right now. Funniest thing I read in relation to this was an Italian pro racer, commenting on the research findings, who said "If I ride 200 kilometers, and when I get off the bike, they say 'do it', I do it.")

Monday: Well, another first today (I think). No, I didn't manage to get a date or anything like that. But, I woke up with that tell tale ketosis mouth feeling and figured I'd check the urine. Well, lo and behold, what did I find but small ketone levels. Note that this was before workout and I did end up having a couple of small glucose polymer drinks last night before reverting to protein and fat contrary to what I described in the update. Now, it's possible that I was in ketosis on previous days prior to the workout and just didn't think to check but I don't recall having the ketone mouth feel that I had this morning. This further supports my feeling that the body adapts to ketosis by 'wanting' to get into ketosis and getting there even earlier the longer you stay on the diet. Which has the benefit of meaning longer time periods in ketosis which should mean, assuming everything else the same, greater fat loss. Kewl (to use the 80's hacker speak terminology, or as MB asked "R U 3LIT3?")

Ok, dropped the thermogenics/pre-workout stimulants and went for it. My legs were a bit tired from riding yesterday but I was interested to see what would happen fully carbed as far as training.

Once again, squats didn't go well. I just couldn't get out of the whole. Even backslid from last Monday's workout. However, all other lifts stayed the same in terms of weights and reps. Which again suggests local rather than general overtraining of my quads. Since leg curls stayed the same as in previous workouts, this further supports my belief that this is simply overtraining of my quads from all the cardio I'm inflicting on them. Oh, yeah, started the workout with 10' of easy cardio on the bike and finished with 10' of fairly hard cardio on the Stepmill/Gauntlet.

Evening: Now this is strange as all hell. According to my ketostix I'm back OUT of ketosis. Now it could be that I've been active today and burned them off but I didn't do much. It's almost like either my morning reading was a fluke or something about my workout kicked me out of ketosis. Which makes shit for sense since the workout should have produced ketones and lowered blood glucose. Have to check tomorrow morning and see what happens. Strange.

Tuesday: Thermogenics. Then 45' of easy cardio. Did 15' walking on a high incline, 15' on the bike (my butt is still numb from the 90 minutes I did

on Sunday) and then another 15' on the treadmill. Gonna try to shift the trauma from cardio around a bit so that the quads don't get too much of the brunt of it. At this point I'm probably so overtrained that it doesn't even matter but I can think that this is doing something good for me. Oh, yeah, if you're wondering why I didn't mention a ketostix check, it's because I ran out and didn't get a chance to get more.

Evening: Well, I had originally planned to go do more cardio. But, then, recalling my previous dieting experience where I definitely overdid it, I decided not to. Until I got a call from my friend at the paper who wanted me to come keep her company (of course, in the mood I'm currently in, I have to wonder why anyone would want to hang out with me. Hell, I don't even want to be around myself right now I'm in such a foul mood). Anyway, it was too wet to skate but I didn't feel like driving so I just walked over there. Cranked some Gin Blossoms (the new album, good stuff if you like generic rock) and just stormed over there. I really enjoy hanging out with her (yes, this is the same girl I've been trying to hook up with since, oh, January of this year but that's another story for another day) but tonight wasn't meant to happen. First her intern showed up to type stuff in for this month's paper. Then one of her friends who works in the upstairs offices wandered down. We all know this kind of person, the kind who never knows when to leave. End result: didn't really get to spend any time with the person I wanted to spend time with but spent Immeasurable time with someone I didn't want to spend time with (if that sentences makes any sense). So I stormed back in an even worse mood (and saying that is like contemplating the definition of infinity).

I've come to the conclusion that I'm just generally pissed off at the universe right now (and it sure seems pissed off right back at me so I guess we're even). I'm pissed about my job. I'm pissed because of what happened last week (which I ranted about in the week 18 update). I'm pissed that I'm not on vacation yet. I'm pissed that I'm still not as cut as I want to be. I'm pissed that I'm 26 and living at home again (not for long as I've *finally* made the decision to go back to school and get on with my life. I wonder if I can get a masters in cyclical ketogenic diets. hee, hee). I'm pissed about a lot of things.

But, you know what I think I'm most pissed about: that I'm as much of an asshole as the others I criticise. I didn't have to put in the stuff last week about what happened in my personal life. I was just being pissy and vindictive. Which made me feel better in that it was fun but made me feel worse since I don't like going out of my way to be shitty to people (hey, at least I didn't do anything really crappy like give names or email addresses, now *that* would have been an asshole thing to do). To be honest, I get in this mood about once a year and it's usually about this time of year (end of summer, early fall). One of these days, when I'm feeling particularly introspective and have enough calories and carbs in my system to be marginally coherent, maybe I'll figure out why. For now, I'll just stay pissed at the world and deal with it. And, I'll be the first to admit that a lot of it is the whole dieting thing. I can't imagine having to do this more than once a year like some bodybuilders do. That

they don't start ripping people's heads off by contest time is a testament to something. What, I'm not sure of but it is something.

However... I did want to say big time thanks to KW for sending me the virtual present of a dozen warm, glazed donuts (mmmm, donuts) with his sympathies. It really meant a lot even if I do have to wait 10 more days to even consider eating them for real. Hey, I wonder if eating virtual donuts can still kick me out of ketosis? And thanks to AA for the phone message entreating me to come down and visit so I can get this all taken care of (not sure what he means but I'm just interested enough to make the drive and find out). Only 12 more days of dieting. Only 15 more days until I go on vacation (going to go out to Los Angeles, go to the big Interbike show with a good buddy of mine, do some skating, and just generally turn my brain off for a while and not think about dieting, or ketone body metabolism, or physiology or anything like that). And, then I can start getting my crap together to go back to graduate school where I belong (in the wide world of academia where I can impress people with the size of my, umm, brain since all I get is shit for the size of my body). But, I'm not bitter. And I can laugh about that now.....heh. (sorry, too much of a verbal joke. Doesn't translate well to text.)

But, I've decided that the above is my last bitching about my life. I could do something about it if I wanted to (well, some parts of it). But, I haven't and I'm not so I have no right to complain. When I try to get my crap together and then get dumped on I can complain but until then, I'm just going to finish my dieting, get some pictures taken and take some much needed vacation time. Oh, yeah, and quit boring everybody with the minutiae of my life.

Almost forgot:

All dieting and no play makes Lyle a dull boy.
All dieting and no play makes Lyle a dull boy.
All dieting and no play makes Lyle a dull boy.
All dieting and no play makes Lyle a dull boy.

I can even do this faster than Jack in "The Shining" since I can cut and paste. Now, if I made a macro.....

Wednesday: Guess what I did this morning. C'mon, guess. Yup, did the thermogenic thing followed by 45' of easy cardio. My life never ceases to excite me.

Thursday: Well, today started off really well. Supposed to have an 8am appointment (which I hate since I wanted to lift first thing) but couldn't find my keys. Turns out my mom snagged them and took them to work with her, about 45' from where we live. So, I'm careless. Which means I had to cancel my appointment (which, as much as I bitch about not enjoying personal training, I don't like to inconvenience people and it means the next sessions with this person is a freebie. And I don't like working for free). Turns out I'll be able to borrow a car from a friend

and this will allow me to lift this morning but it's still a pain in the butt.

Workout: Doing deads, delts, arms, abs and grip today, my normal Wed workout. I'm not carbing this weekend (well, probably one meal on Saturday or Sunday night) so I opted to spread out the workouts a bit more and skip the Friday workout. I'm terribly overtrained so it's probably just as well.

Ok, I'm officially overtrained. Hard to compare this workout to the last since I was more interested in playing in the gym than really working hard. I'm tired, grumpy, depleted, etc, etc and tired of training full tilt. Did some different exercises and it didn't go really all that badly, but it wasn't the hardcore workout I had hoped for. Ah, well, to be expected after what amounts to 19 weeks of maximum training without a break. Sing it with me "Que sera, sera. Whatever will be, will be...."

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Fri	8/16	155	3	25	15	6	37	10.4	16	139
Fri	8/23	154	3	23	15	6	32	9.4	14.5	139.5
Fri	8/30	153	3	22	12.5	6	31	8.5	13	140
Mon	9/2	158	3	22	12.5	6	31	8.5	13.4	144.6
Fri	9/6	151	3	22	12.5	5.5	30.5	8.5	12.8	138.2

Notes: Ok, this doesn't look good at all. From a previous rate of fat loss of about 1.5 lbs per week with no FFM loss, I have shifted to a loss of .6 lbs with almost 2 lbs of FFM lost. Which might explain my crappy workout yesterday if this truly reflects muscle loss. Not good, not good at all. Perhaps trying to stretch out ketosis for 12 solid days (more or less) isn't such a good idea.

Friday: Did thermogenics and a short 30' walk. After my personal training appointments, I did another 45' on the Stepmill at World Gym (since I was there already). And then came home and ate.

Saturday: Had planned to do morning cardio but overslept and had to go to appointments (I think I dislike Saturday appointments more than even early morning appointments. I'd rather sit at home, eat Lucky Charms and watch cartoons). Was going to workout after my appointments but forgot my clothes. Figured this was a sign to make today a day off. Decided to go ahead and carb from noon today until bedtime. I'll be riding tomorrow most likely and should be back in ketosis by Sunday afternoon I figure. Then it's the last week push of dieting to see if I can at least get to 6-7% bodyfat (since it seems that 5% may be forever out of my reach). And then I'm going out of town for a wonderful 2 week vacation. Can you tell that I'm really ready to go as often as I keep mentioning how close it is?

Evening: Well, my one friend who's in town was busy last night so I just got to drive around the city and feel sorry for myself. I know I said I wasn't going to complain anymore but this really sucked. Did go and have some killer sushi which was nice but I can't think of many things more pathetic than going to a restaurant and eating by yourself. Well, actually I can but they aren't suitable for discussion in a family forum like mfw <G>. Let's just say that they would involve a jar of Vaseline, some sandpaper and a very large hamster <double G>. IAE, back to reality: I stopped carbing at bedtime and now it's time to get back into ketosis.

Sunday: Well, check this out. After taking my thermogenics but before I went skating, I figured on checking for ketones just to see. Well, I'm showing small amounts already. This before any activity and about 12 hours after finishing my carb push yesterday. Definitely seems to support my thesis that long term adaptation to this diet is to get into ketosis faster. Once again, kewl.

See ya next week.

Lyle McDonald, CSCS

subject : Sniff, last one for a while: Bodyopus week 20 (finally)

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Date: 1996/09/16

Well, an interesting question came up (actually, this has come up before but I don't think I've every discussed it in the weekly updates and I thought it would make a good final FAQ question (even if I don't have the answer to it). Any input here is much appreciated.

DL asks:

>Here's one for you. Dan D. indicated that some of the Bodyopus crazies were
>carbing up just before a workout, doing the workout, then using insulin to
>drive themselves back into ketosis. Doing this affords the lifter to get
>the animal workout while also getting some of the benefits of the
>ketogenesis. Has anyone experimented with carb values that would allow one
>to get a strong workout but be back down to the low BGLs by the end of the
>workout so that maybe one could perform some cardio to burn fat via
>ketogenesis. Because I can't see your head shake or nod, I'm not sure you
>understand what I mean but I believe you do. I wonder if there would be any

>benefit of bouncing out of ketosis for the workout, but high tail it back
>(naturally) after the workout? But before that is evaluated, is it possible
>in the first place?

Where to start? I know exactly what you're asking here: is it possible to do some carbs (amounts of types currently unspecified) to get:

1. the benefits of normal blood sugar and normal blood pH during the workout
2. but allow blood sugar to come back down by the end of the workout for fat burning cardio and re-entry into ketosis?

#1 should answer your question of the benefit. I think having normal blood sugar will allow for a better workout. According to MF over in England, his friends are the some of the psychos doing the carbs and then insulin thing, weight training while in ketosis will lower muscle recruitment from lowered blood pH. I also think that the increased blood pH will not allow as much buffering of lactic acid which might limit strength since fatigue will kick in sooner. So, kicking out of ketosis for the workout would likely make it more productive in terms of the reps you could get with a given weight, especially if you're working in a highish rep range (more than 30 seconds per set).

Now, is it possible? I think so. With really anal timing and record keeping, I think you could determine just how many carbs you could take in to:

1. exit ketosis for the workout
2. have plenty of blood glucose for the workout
3. use up all the blood glucose by the end of the workout
4. be back in major fat burning mode for post workout cardio.

The question is how many carbs and what types. Recall that Duchaine suggests 50 grams of carbs (he suggests fruit in this case although I'm not exactly sure why, probably has to do with glycemic index and rate of entry into the bloodstream) 1-2 hours prior to the Friday depletion workout so that ketosis is abolished for the workout. So, I think 50 grams is a good place to start. In fact, I think you could probably determine the amount with the following trial and error type of program

1. take in 50 grams of carbs (I'd think glucose polymers of some sort might be ideal but they'd hit the bloodstream pretty darn fast and you'd have to play around with how long before the workout to take them.)
Actually, what might work better would be to take in 50 grams of your chosen carb source, and do a ketone and/or blood sugar check every 15-30 minutes and see when you get out of ketosis. Use that time (say 45 minutes) as an indicator of how long prior to weights you should take in your carbs).

2. go lift weights, check for ketones immediately after weight training (exercise is ketogenic in nature). If you are showing ketones, you know you are back into ketogenesis and will be burning them during post

workout cardio. You could then gradually increase the amount of carbs you took in until you found the amount that kept you out of ketosis after the workout (which would have to stay the same of course as far as sets and reps). That would be the critical amount to take in to satisfy our requirements for a kick-butt workout but still allow one to get back into ketosis quickly without using exogenous insulin.

In other mail, DL commented that urine ketone measurement is only a very indirect and delayed indicator of ketogenesis in the blood which is true. But, without blood ketone (or breath ketone) measurement devices, it's really all we've got. I suppose you could use a glucometer to chart blood glucose (understanding that ketogenesis doesn't really occur until blood glucose gets around/below about 60 mg/dl and many glucometers aren't accurate enough to give more than rough measures) to see how long it takes for blood glucose to come up out of ketone land. That would give you a rough measure of how long before lifting to take in your carbs. Then, by checking blood glucose after workout, you could see if you had burned all those carbs up so that ketosis could rapidly be re-established.

Lyle McDonald, CSCS

The body composition log: Taken with Slimguide calipers first thing Monday morning upon awakening.

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	7/8	152	3	20	10	6	29	8.5	12.75	139.25
Mon	7/15	157	3	20	11.5	6	29	8.5	13.35	143.65
Mon	7/22	159	3	21	13	6	30	8.5	13.5	145.5
Mon	7/29	162	3	24	15	6	33	9.4	15.2	146.8
Mon	8/5	164	3.5	24	16.5	6	33.5	9.4	15.4	148.6
Mon	8/12	164	3	25	17	8	36	10.4	17	147.0
Mon	8/19	163	3	25	15.5	6	34	9.4	15.3	147.7
Mon	8/26	155	3	24	13.5	6	33	9.4	14.6	140.4
Mon	9/2	158	3	22	12.5	6	31	8.5	13.4	144.6
Mon	9/9	154	3	21	12	5	29	8.5	13	141

Notes: Well, this looks like last week's fears may have been unfounded. FFM today (which should be compared to FFM on 8/26 as that followed only one carb lean) is about the same. I think more than anything, my numbers show that body composition measures are only so useful for this diet. With the massive changes in water weight (a component of FFM), it's hard to say exactly what's going on. Ultimately, I'm more concerned with FM (which didn't go down as much as I would have liked but...) and strength in the gym (which I am using as at least a general indicator of muscle loss or maintenance. That is, if strength levels stay the same as when I wasn't dieting, I take this as a general indicator that I'm not losing and (much?) muscle. No, not an exact

method but, without a DXA machine to do body-comp, it's the best I can do.)

Key:

BF% = body fat percentage

FM = fat mass in lbs

FFM = fat free mass (total weight - FM)

My week at a glance:

Sunday: Skated for about 1.5 hours today (think I forgot to mention it in last week's update). Just went around the city with no particular goal in mind. Ironically enough, I ended up at a Target across town from where I live. Seemed as good a place as any to turn around (a good, ahem, target so to speak).

Monday: Legs, chest and back again today. As with last week, squats continue to backslide but, considering 1.5 hours of skating yesterday, it's still hard to compare directly. If I have suffered any muscle loss, it's pretty much constrained to the lower body since all upper body lifts stayed the same today. Started this workout with 10' of easy cardio on the Lifecycle and ended it with 12' of medium-hard cardio on the Stepmill. Opted not to do any more cardio tonight because my legs are tired and I'm too overtrained as it is. This week is going to be a nightmare as I have to try to set up all my clients with substitute trainers before I can go out of town as well as get ready for my trip so don't be so surprised (hell, most of you will probably be overjoyed) if I'm not as longwinded as usual.

Tuesday: Thermogenics then 45' of brisk walking on the treadmill in the morning. Since this is the last week of dieting (for now, he said with an evil grin), I decided to really go overboard and go back in tonight for another easy 45' on the bike. Gave me some time to catch up on my reading anyhow. I am so frigging sore today from yesterday's lift it's sick. I mean, I like being sore like the next guy but I am gimping around my hamstrings are so torched. Guess I shouldn't have done those 3X6" isometric holds after I hit failure, huh?

Wednesday: Typical Wednesday. Did the thermogenic thing and then went walking for about 1 hour. Due to the mechanics of my vacation (leaving Tuesday morning), I've decided to delay carbing an extra day since I'll be returning to a normal mixed diet for the 2 weeks of my vacation. So, I'm moving my normal Wednesday workout (deads, delts, arms, abs, grip) to tomorrow. My whole body is too sore to have had a good workout today anyhow.

Evening: Since this is the last week of dieting (again, for now), I went and did another 45' of easy cardio on the bike tonight.

Thursday: Weights. Deads, delts, arms, abs. Since I know I'm overtrained

and I'm on far too few calories, I cut this workout even further down to one work set (to failure of course) per exercise. Interestingly, strength came up or at least stayed the same in everything (did the same lifts relative to last week's same workout) so I don't get the impression that I'm losing any muscle (any more muscle?) from all this cardio. Only the body composition measures will tell, and even then only roughly. I started the workout with 10' easy on the bike and finished with 20' of walking on the treadmill.

Workout:

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Fri	8/16	155	3	25	15	6	37	10.4	16	139
Fri	8/23	154	3	23	15	6	32	9.4	14.5	139.5
Fri	8/30	153	3	22	12.5	6	31	8.5	13	140
Fri	9/6	151	3	22	12.5	5.5	30.5	8.5	12.8	138.2
Mon	9/9	154	3	21	12	5	29	8.5	13	141
Fri	9/13	150	3	20	11	5.5	28.5	8.0	12	138

Notes: Ok, well, I made a bit more progress this week but fat losses have definitely tapered off (from 1.5 lbs per week to 1). Now, Dan has written previously that Week 4 of a fat loss diet is about the time that thyroid really downregulates and results stop occurring as quickly and I started this diet oh so long ago with a less than optimal thyroid level (going by body temperature). So, since it corresponds well with my vacation, I'll be taking the next two weeks and eating normally. Yes, that (gasp) means normal (more or less) carbohydrate intake. I'll be sure to take body temp measurements to see how many days it takes for thyroid levels to come back up and report back. When I get back in town, depending on my mental state, I may try to diet down the last little bit to 6-7% bodyfat hoping that an improved thyroid will allow me to make the final plunge. Of course, since I am going to LA, I could probably snag some cytomel from somebody. Nah, too easy. Gotta do this clean.

Or, if I am in a different mood, I may come back after my break and jump back into another muscle gaining phase. Winter is coming up so there's no real good reason to be that cut. Other than for my own piece of mind.

Oh, if anyone wonders why I put bodyfat at 8% when it's usually not a round number, here's why. The lookup charts I have give bodyfat % based on a range of skinfolds. Today I moved from the 29-31 range (which give 8.5% bodyfat) to right above the 26-28 range (which is 7.6%) I'm simply assuming that being right in the middle is roughly halfway between the two BF percentages which is where 8% came from.

Friday: Well, after much toeing and froing mentally, I decided to go ahead and start carbging. I had considered staying in ketosis an extra day or two to lose some more fat but, seeing as progress has stalled, I didn't see

the real point in making myself that miserable for another .3 lbs of fat or something. Now, the plan was to do the depletion workout and all that crap but:

- a. I am exceedingly sore from my weight workout yesterday (which should have been done on Tuesday to set up for carbing this weekend)
- b. I really wasn't up for it.

So, even though I know better, I just started carbing this afternoon. Went with my typical sugar foods to start but rapidly shifted to more 'real' foods in the evening. Going to carb tomorrow and part of Sunday, then revert back to protein and fat and take a diuretic to try to get some photos taken on Monday morning. Just in case I decide not to continue the diet when I get back, I want some final pictures of my condition (best it's ever been even if it's still not quite where I want it). Most muscle and the least fat I've ever had.

Saturday: Carbs, carbs, carbs, carbs. But, in controlled amounts. Not following the recomposition numbers (hell, I haven't done that since week 1 because I'm too damn lazy) but I can't go overboard since I'm not going back to low carb on Monday. Making sure to take 750 mg of citrimax to prevent spillover and help blunt hunger today and plan to continue carbing until noon tomorrow. Then back to mostly fats and protein and going to use a herbal diuretic to get some pics taken on Monday. And, then I'm on vacation. Yeeha.

Oh, one last thing to note: I'm also tapering off the ECA stack this weekend. From the standpoint of carbing, it would probably have been better to discontinue it totally but, as I found out last time the hard way, going from 150 mg of ephedrine per day to zero cold turkey is a great way to really crash yourself out. I must have slept for 3 straight days doing that. So, like any good drug taker, I'm going to slowly taper down the dosage to give my body time to adapt. If I decide to try to diet down the rest of the way after my two weeks hiatus, the time off the stack should help there as well. So, I did
Friday: 3 doses of 20 mg ephedrine, 200 mg caffeine, 1 aspirin, cayenne
Saturday: 2 doses of 20-mg ephedrine, 200-mg caffeine, 1 aspirin, and cayenne
Sunday: 1 dose of 20 mg ephedrine: 200 mg caffeine, 1 aspirin, cayenne
Then off the compound totally.

Sunday: Well, I felt a bit water retentive this morning (no, not anal retentive although that applies to me as well) so I decided to shorten the overall carb load. Had a small balanced breakfast (more Isometric than anything) and then went skating at a very easy pace for about 40 minutes. Had one last carb/protein meal (50 grams Ultra fuel with 1 scoop Designer) afterwards and that's the end of carbing. Started taking a herbal diuretic after that (got B-6, buchu extract, uva ursi and a whole host of other shit in it) and will continue to take two capsules every 2 or 3 hours. Going back to mostly fat and protein with small amounts of carbs so I'm not too flat (last time I tried to peak, I couldn't get a pump) and will likely have one decent sized starch meal tonight before bedtime. Hopefully

I can get pics taken first thing in the morning and now I have to go shave the body down so I don't look like the hairy gorilla that I am.

Well, despite the best of intentions, I continued to carb yesterday. I think psychologically, not reaching my goal (c'mon, I only gave myself 5 weeks to drop from 10% bodyfat to 5% which is pretty impossible without drugs) I continued to carb yesterday. Also, the ex., who had been out of town the last two weeks got back and wanted to go get some food. And, I couldn't really tell her (sorry, I'm not eating until tomorrow). So, my stomach is full of undigested food and I'm still holding a lot of water. Which pretty much means I will continued dieting down when I get back from my vacation in two weeks. Morning body temp is back up a bit (98 yesterday but 97.7 today) which hopefully means thyroid is coming back on line with the extra carbs. Will simply try to do damage control bodyweight/fat wise the next two weeks (the friends I'll be spending time with are health nuts like me so it will be difficult to really eat a lot of junk food anyhow) and go back onto Bodyopus when I get back. For the record, here's the body composition measurement as of this morning.

Day	Date	Wt	Pec	Abs	SI	Thigh	Sum3	BF%	FM	FFM
Mon	9/9	154	3	21	12	5	29	8.5	13	141
Mon	9/16	160	3	22	12.5	6	31	8.5	13.6	146.4

So, not unsurprisingly (considering the sheer volume of food I ate this weekend) I got a bit of spillover (we're talking an entire jar of peanut butter and jelly, a loaf of bread, 6 bagels and grog knows what else) but I'm still the leanest I've ever been. To drop to 6% bodyfat when I get home will require a further fat loss of: $146.4 / .94 = 155$ so 5 lbs. of fat loss assuming I don't gain much on my trip. With improved thyroid economy and some time off the ECA stack, this should be a snap with 3-4 weeks of further Bodyopus dieting.

Note: for anyone who didn't catch it, I will be out of town (and most likely offline) from tomorrow (Tuesday Sep 17th to Mon Sep 30th) so, if emails, questions, and requests for back issues of the diaries are not responded to, that's why. I will answer every email I get but it may take some time. I might be able to get online briefly from California (don't know if I'll be able to telnet back to my home domain or not) but I'll have to really Prioritise answering email. So, if there's a delay, I'm not blowing you off, I'm just on vacation. Also, in the disorganisation which is my life, I didn't even get a change to cobble together even an ugly WWW page to archive these suckers. If somebody out there (Brian, Robert) has them all and wants to archive them *temporarily* on their site to make them available, please drop me an email to let me know where they are and you can assume that reuse permission has been granted. Assuming I *ever* get my shit together and get my own home page put together, I will request that you do not continue to archive them on your site but a link is fine. If it seems I'm being hardasses about this, well, I am.

But, Duchaine has talked about publishing these long-winded things so I need to know where they are for copyright reasons.

I hope everybody has a great next couple of weeks (probably be a lot quieter with me offline, eh). Lift hard, eat right, and do all that good shit and I'll catch y'all (or was that all y'all) in a bit.

Lyle McDonald, CSCS

P.S. I really can't believe that it's been 5 months that I've been doing these things. I really need to get a life, huh?

Subject: Most emphatically NOT week 26 of my Bodyopus experience

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Date: 1996/11/09

Ok, first things first, this is NOT (I repeat not) the start of another series Of Bodyopus diaries. 20 weeks of writing those silly things was more than Enough for me. Doing them on a weekly basis, while enjoyable, just took too Much time and energy and I was starting to repeat myself a bit (hey, when You've Only got 4 jokes, you have to keep recycling them). What this is is a Semi-hemi-Demi update for the Bodyopus crowd with some more thoughts, ponderings And just general crap I've come up with.

Ok, in the last diary, I had finished up another 10 weeks of dieting right Before My vacation. Bodyfat still didn't ever get below 8% (seems to be a plateau I just can't get past) but that was only 5 weeks of actual dieting. Next time I go for cutting, I'm going to ease into it a bit more (as per the Recommendations Of many individuals), no cut calories as quickly and not do as much cardio And see what happens.

Vacation:

It was nice to have a break from ketogenic dieting. However, one observation I made was that I was hungry ALL THE DAMN TIME. Now, I've seen research That as little as 3 days on a low carb diet causes rebound hyperinsulinemia (Which is the whole point of the diet anyhow). What I wonder now is for how Long such a thing continues. Jeff Krabbe, after 2 years straight on the diet,

Reported being hungry all the time as well so I think there's something going On. As would be expected, I did gain a lb or 2 of bodyfat back since I wasn't Training that much but that was fine.

Had an enjoyable vacation. Since I was in LA, I got to spend some time with Dan Duchaine down in San Diego. Without giving all the sordid details, here's The quick report and I have good news and bad news.

The good news: Dan Duchaine is just as much of a pervert as everybody thinks He is. Which I have absolutely no problem with. A lot of my good friends are perverts. Hey, I'm one too.

The bad news: Hate to break this to everybody, but Dan Duchaine is also one of The nicest individuals I've ever met (sorry to spill the beans Dan). He let me Spend an entire weekend pestering him with all my dumb questions, taught Me how to ride those damn recumbent bicycles of his (my knee has finally Stopped hurting from crashing so many times), showed me around San Diego And generally was an incredibly gracious host. He also made me privy to a Personal secret of his that is so astounding, it would set the entire world Of bodybuilding and performance enhancement on fire. A secret so terrifying That I am sworn to secrecy or he threatened to send me a jar of Designer protein Laced with DNP if I told anybody. Trust me when I say this makes his Rants And articles about Buttmuch look tame by comparison. But, don't even bother Asking me about this in email, I think he's tapping my line.

Ok, back to reality now (is it reality or is it Memorex). I had originally intended to go to a Zone/Isometric type diet for my next mass phase. But, for a variety of reasons, I've decided to stay the ketogenic route a bit longer. I've got some more questions that need answered both for its applications for natural athletes as well as the, umm, non-natural athletes. No, that doesn't mean that I'm going to take steroids or anything illegal like that. Let's just say I may experiment with some of the gray-area supplements (you know what they are) to check for efficacy on this diet. Those who correspond with me via email know what in the hell I'm talking about. Those who don't have a clue probably shouldn't know anyhow. Sometimes I'm not sure I have a clue what I'm talking about if that's any help.

Anyway, I'm back into mass gaining mode (damn! it's nice to eat again) combining Bodyopus with Charles Poliquin's German Volume Training (10 sets of 10) methods. Am now in week 3 and things are going stunningly well. Doing it naturally for the most part (you guys consider Phenformin on the weekends to be 'natural') but may look into those other supplements during my next dieting and or mass gaining phases. Will post an update at the end of this phase as to how I trained, ate, supplements, etc as well as body composition measurements.

But, in the meantime, here are some other questions that have come up regarding ketogenic diets in general from a couple of people and my thoughts (of course) on them.

Oh, do me a favour, if you've got questions about this, please make sure I'm able to answer them before you ask. AJ in Australia has stumped me a couple of times and that just makes me mad.

Q. What are some other variations of the ketogenic diet I can try if the 7 day cycle is not working for me?

Keep in mind that Bodyopus does NOT have to be a 7-day cycle. Yes, it fits conveniently into a standard work week but the standard cycle may not work optimally for everybody. Hence, some Bodyopus variations are necessary. Having talked to a lot of different people about the topic, here are the major versions of the Cyclical Ketogenic Diet I can think of.

1. Standard Bodyopus/Anabolic diet: 5 days of low carbs with a 2-day carb-up
2. Slow carb-up Bodyopus: for those who can't achieve maximal glycogen Supercompensation in 2 days: 5 days of low carbs, 3 days of carb-ing. Realise that an 8-day cycle is a big pain in the ass as carb days and training days will fall on different days each week. Might as well do the Ultimate diet if you're going to do this to yourself.
3. Faster fat loss Bodyopus #1: 6 days of low carbs, 1-day carb up. This will not achieve full glycogen supercompensation (although you can get 75% of the way there) unless you use insulin. Useful for those who need to lose fat faster.
4. Faster fat loss Bodyopus #2: 12 days of low carbs, 2-day carb up. Although not as much fun (because 12 days of low carbs sucks), this will cause Proportionally greater fat loss than a 7 day cycle. This is because, out of 14 days, you will spend approximately 10 days in ketosis (assuming it takes you 2 days to get into ketosis and you carb for 2) instead of only 7 days (if you carb every weekend). For a mental break, I suggest one big carb meal on Friday or Saturday. If you do this right, you can potentially spike yourself back into ketosis. You should probably change your training split (or not) for this but that's another topic for another day. You will have to be very careful no to overtrain with this method to avoid muscle loss. And, you should check body composition at the beginning of the 2 weeks and at the end to see if you've lost muscle. If so, you will not be able to sustain ketosis for this long.
5. The Vince Gironda method: Vince has been pushing his 'defo-diet' for years by recommending eating no carbs, just as much meat and fat as you want. While I don't think most will get optimal fat loss without keeping track of calories, this can work. He does suggest one concentrated carb meal every 4 days. Workeable but boring, especially if you're counting calories.
6. Masochism Tango Bodyopus (10 more bonus points for anyone who catches the song reference): Can't recall who it was, but one correspondee told me of staying on strict low carbs for 6 weeks (!) and then having 7-10 days of

carbing as a break period. This is much close to the Atkins diet than anything else and I'd fear loss of muscle tissue going this long without carbs (not to mention loss of what little is left of my sanity) but it may be useful if you've got a lot of fat to lose and not much patience.

And, that's just for fat loss. For muscle gain, I think the variations get even more complex but I'll save that for another day. This is what I'm experimenting with right now. But, some questions to ponder are:

1. Just how many carbs can you consume and still maintain ketosis?
2. Is it possible to use super high GI carbs post workout and spike oneself back into ketosis while getting the benefits of elevated insulin and GH post workout?
3. Would more than one 'mid-week' carb spike be viable and would it encourage more growth?
4. What's the best way to use insulin on Bodyopus for growth?

On and on it goes.

This one came up from two different people right before I left on my trip which gave me a good two weeks to think about it? Of course, I still don't have an answer but that's ok.

Q. Once ketosis is established, would it be possible to lower dietary fat intake to increase the use of body fat to make ketones?

Or, put differently, once in ketosis, what's the lowest ketogenic ratio that will maintain ketosis? Here's the rationale.

Now, recall that I argued previously that a lower meal frequency (3 meals vs. 6) per day might cause greater fat loss based on some varying physiological data.

1. Ketones can be made from either dietary fat or body fat.
2. The amount of ketones made from body fat depends on the concentration of ketones in your bloodstream (which we can indirectly measure by ketone concentration in your urine as urinary excretion represents the difference between ketone production and ketone utilisation)

Hence, it makes sense to me that keeping blood concentration of ketones low (by not putting in loads of dietary fat all the time or even diluting it by drinking boatloads of water) should allow for more bodyfat to be used.

So, back to the question.

I have written previously that a minimum ratio of 1.5 grams of fat for every gram of protein AND carbs is necessary to establish ketosis. This is based on data from epileptic kiddies and an equation for determining the relative ketogenic vs. anti-ketogenic ratio of a given meal. The ketogenic kiddies

use a ratio as high as 4 grams of fat for every gram of protein/carbs but, to control their epilepsy, they seem to need a higher concentration of ketones in the blood. This would not be good for a bodybuilder trying to shed fat however.

So, once ketosis is established, my question is how little fat can be consumed and still maintain ketosis. A long term adaptation to this diet *seems* to be that the body will make ketones at lower and lower ketogenic ratios. This is an inference based on the epileptic kiddies. Although they are started with a ketogenic ratio of 4:1, the KR is gradually lowered to 3:1, 2:1, and 1:1 as they adapt to the diet. This tells me that their bodies become more efficient at making ketones as time passes. I wonder if the same thing would happen in a healthy bodybuilder. As an aside, somebody asked if it made sense to rapidly establish ketosis by consuming a massive ketogenic ratio (like 3 or 4:1) and then lowering fat intake to 1.5:1. For me, it matters little as I find myself entering ketosis faster and faster (another indication that a long term adaptation to this diet is for the body to prefer ketones for fuel). Usually there by the end of my first workout of the week regardless of what I eat on the weekends.

Here's the problem though: recall that the only way we have to measure ketone concentration in the body is through indirect measurement of urinary ketone levels. So, let's say we take Bodybuilder X (not to be confused with the guy TC 'interviewed') and have him eat a 1.5:1 ratio at maintenance calories on Mon and Tue, train the way he should and have him in ketosis by Tuesday night. He's showing at least trace ketones in his urine and everything is hunky dory.

Now, he decides he wants to lose more fat and decreases fat intake and brings his ketogenic ratio down to 1:1. As long as he's still showing ketones on the ketostix, he's fine. We know he's still in ketosis (which means he's sparing muscle tissue and protein from gluconeogenesis. Oh, this is despite what a certain moderator of a certain mailing list happens to believe but that's ok too), he's still getting maximal fat burning and everything's great. But, what if he's not showing ketones on the ketostix? Well, we have no way of telling if.

1. He's kicked himself out of ketosis and has fucked himself (because now he's going to break down muscle protein for glucose)

or

2. Just burning up all the ketones he's making through various activity.

Right now I can't see any good way out of this. If they were more accurate, we could use a glucometer to see if blood sugar were still in ketoland but I still have yet to show a blood glucose lower than about 60 when I've been in ketosis. So, they aren't really reliable enough for this use. There is such a thing as a breath ketone analyser but I don't even have the first idea on where to find one or what it would cost.

Have to ponder this some more and see what I can come up with.

This one has come up a few times in email and here are my thoughts.

Q. Would it be possible to modify a Bodyopus type of diet for sedentary dieters to avoid some of the muscle loss that they inevitably see? Or, put differently, will the weekend (or every other weekend carb-up) cause them to save more muscle mass than just staying in ketosis (aka Atkin's Diet) all the time.

>In other words can Joe Average, the semi-couch potato, use a modified BO, and have more success on this than, say, on Atkins? Does the Anabolic rebound only occur with some form of weight training.

Ok, first the ranting at most fat loss diet approaches in general. Any diet which

does not include exercise will lead to major muscle loss, ketogenic or not.

Yes, a ketogenic will spare more muscle but you will still lose some if you're not dieting. Studies of high carb diet only vs. high carb diet+exercise (unspecified at this time) show that, while diet only groups lose 25-50% of their total weight as muscle, the exercise+diet group can lose 99% of more of the weight as fat (some studies with weight training show that muscle is actually gained while dieting and more than 100% of the weight lost is fat). So, I think regardless of the diet type, exercise is the Absolutely

critical component to maintaining muscle. Aerobic exercise does a fair job of it with weight training the clear winner. Basically, muscle is superfluous as far as your body is concerned. Weight training is the 'signal' for your body to hold onto the muscle.

Ok, so would a BO/AD approach work for non-exercisers. I don't think so for several reasons:

1. While it's convenient to posit that the anabolism is strictly due to the glycogen supercompensation I think this is incorrect. As pointed out by a critical buddy of mine, if supercompensation per se was the key to growth, endurance athletes would gain muscle when they did it. It sure seems that it's weight training + glycogen depletion + glycogen supercompensation that's the key.
2. Without exercise to deplete muscle glycogen (a misunderstanding of the ketogenic state is that muscle glycogen is depleted. All that's important for ketosis to occur is that blood glucose be lowered and all that requires is for liver glycogen to be empty. You could have full muscle glycogen and still be in ketosis. Using insulin would do just that), a carb-up would fill up muscle glycogen (more so since it wasn't depleted in the first place) and then spill way over (I mean more than I get with my pig outs on the weekend) to fat cells.
3. Additionally, maximal glycogen supercompensation only occurs under

two conditions:

- a. glycogen depletion: which we have established won't occur very well without training
 - b. exercise: which increase enzyme activity in the muscles worked.
- Hence the importance of *some* type of workout prior to the carb-up.

So, a sedentary person carbing even semi-ocassionally would probably screw themselves in a big way. Again, the way around this is to add exercise to the mix. Any dieter that doesn't is fucked from the get go regardless of what diet they do.

So, Bodyopus boys and girls, that's all I've got to offer for right now.

Look for

another six week Bodyopus summary in about 3 weeks and if I think of any other questions or ideas, you'll see them here (or in Duchaine's Dirty Dieting newsletter. Told you there were reasons I was going to continue to suffer on this diet).

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COOKIE'S FOOT NOTES

Well come on guys it wouldn't be me if I didn't chime in with a few words of my own now would it?

I know a lot may have seen this diet article before as it is nearly 10 years old but I do think it is a very good condensed version of the original workings that it is taken from. So being a very good place to start for those that are new to trying the ketogenic phase for either general bodyfat loss or even for contest dieting.

A friend of mine actually lost over 40lbs in a two-month period following this diet, so it does work but does take some discipline.

Another thing as well Lyle used the regular ECA stack I would be tempted to use a more up to date variation of this in that I would drop the caffeine down to 100mg per dose and drop the use of aspirin altogether and in its place use some yohimbine instead.

As aspirin has been shown to interfere with the whole process and not make it as effective as one once thought, added to that I personally think too much aspirin to be very very bad for the stomach lining and a ketogenic increases overall bodily acidity which can also cause problems to the stomach linings.

The main reason for the reduction in caffeine is in my opinion that it over stimulates the adrenal glands and nervous system coupled with the fact that you are training hard could lead to overtraining, and so lead then onto muscle wastage which is what we do not want at any cost.

Another little bit of information that most would probably not heard of is that we all know that caffeine can stop us from sleeping but it goes much further than that. In so much that it also interferes with how deep we go and how restless we can be in our sleep.

Caffeine has a half life of about 12 hours in the body so if you are amping it up with 200mg of the stuff at say 2-4pm it is going to be early morning before those blood levels are starting to drop but yet it is still making certain systems within the body work overtime, when in fact they should be resting/recharging and recuperating.

Now if you didn't think that after using the modified ECA stack that it was working for you(you are probably just a speed freak but we wont go there just yet, lol). You could add a cup of green tea to each dose to naturally up the overall caffeine content as a nice little bonus add in some extra antioxidants to help with the overall wellbeing of your body.

Now to me this really is a good idea in so much as with the body burning a ton of fat off and your metabolism going into overdrive the waste products the body will be turning out will be quite considerable to say the least. So by just having a simple cup of green tea 3 times a day you are doing yourself a double whammy as you could say, increasing metabolic output and doing a bit of internal spring cleaning.

As a personnel note I would easy into the use of the green tea especially first thing in a morning as if you are like me you may find that the tea on an empty stomach leaves one feeling rather nauseous, so maybe save it for the later doses. I also know that some are not infavour of the use of green tea and its benefits, I prefer to look at it this way " A few billion Chinese and Japanese people cant be wrong".

Right the diet itself, if I were a first timer using something like this I would be inclined to add lets say an extra 500 calories to your daily totals split between protein and fats evenly. The reason being I find most people seem to undercut their calorie intake when they star dieting and try to loose too much too soon. Coupled with the fat that we are all inclined to train harder the first few weeks of anything new so overall we will inevitably burn up more than we bargained for. So the adding in of 500 extra calories can be looked at as a bit of a muscle safe guard if you like. " A penny of prevention is worth a pound of cure".

I would also recommend cycling your food types and trying as hard as possible to not use the same foodstuff for more than a couple of days at the most. This will entail a little more planning and preparation on your part but well worth it in the long run in my honest opinion.

Training, mmm interesting one this one. This is definitely an individual thing and speaking from experience I think the routine that Duchaine outlined is a dam good one and it does produce results fast but it is brutal just ask my mate, lol. I would recommend people follow the routines recommended before trying any changes of their own as there are a number of ways that alterations could be implemented to great effect. But I really don't want to go into touch much detail with that as it may add even more confusion and trying anything new can be confusing at

the best of times. Just go with the flow and if you feel that it is not working just right for you after a few weeks of doing it then get in touch with me and we can see if we can sort it out.

Right then its now all down to you I have introduced you to it now you have to follow it and learn from it plus along the way get your bodyfat down to what you want, which will happen I have seen it.

I would recommend after reading and trying what Lyle did in this diet journal you actually invest and read both his and Duchaines books (Lyle wrote some after his bodyopus experience) all very good and packed full of information.

Good Luck

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