

You're dedicated to building an impressive, sculpted and muscular physique. You train four, five or maybe even six times per week and stick to a strict diet to achieve the same look as the pro bodybuilders you see in the magazines. But you're just not getting the results you want...

The key to packing on lean muscle mass, increasing strength and improving performance isn't as elusive as you may think. In fact, it's as easy as following the same 45/35/20 Macrobiotic Nutrition ratio that pro bodybuilders and athletes use to simultaneously pack on slabs of rock hard muscle, while stripping layers of body fat from their physiques.

The 45/35/20 ratio of carbohydrates, proteins and fats is based on proven science and on author Gerard Dente's personal experience. He has dedicated most of his life to finding ways to increase muscle mass and improve physical performance. Through this handbook, he allows you a peek into the mind of a hardcore 260-pound bodybuilder and gives you the tools you need to blow your muscle building, fat burning potential through the roof!



US \$9.95

MACROBOLIC

PRIMING YOUR BODY TO BUILD MUSCLE & BURN FAT

NUTRITION



DISCOVER
HOW TO UNLEASH
THE ANABOLIC
EFFECTS OF FOOD

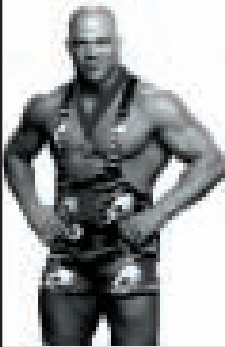
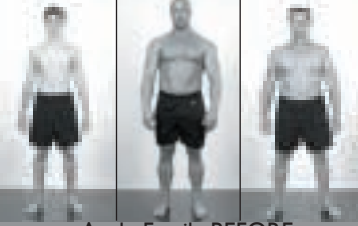

**MUSCLE FIBER
BLASTING**
TRAINING
PROGRAM INSIDE!

The Official Handbook

by Gerard Dente


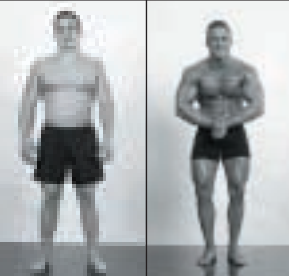
The Program Perfected on Pro Athletes

EVEN THE FAMILIES OF PRO ATHLETES
ARE USING MACROBOLIC NUTRITION TO BUILD
MUSCLE AND SHED BODY FAT...

						
	<p>Angle Family BEFORE</p>			<p>Angle Family AFTER</p>		




"Upon entering the WWE®, I quickly learned that I needed to pack on serious size, but I didn't want to put on body fat or jeopardize my endurance and quickness. Macroblolic Nutrition has allowed me to pack on over 20 lbs. of lean body mass. And I'm even quicker and more agile than ever! After my family witnessed my amazing transformation, they decided it was time to get on the program too. Their results are even more impressive!"

- Kurt Angle, Olympic and Professional Wrestler

				<p><i>"In my earlier competition days I followed a high protein, low carb diet while preparing for contests. I was usually cut but always lost some quality muscle (size) leading up to the show. For my Masters Olympia comeback, I used Macroblolic Nutrition along with my Return to Dominance supplementation program (as seen in Physical magazine). I competed bigger, harder and fuller at the age of 40 than I did in my last pro show at the age of 28. Now, my son has taken Macroblolic Nutrition to the next level with his physique. Not only did he gain 16 lbs. of rock hard muscle, he dropped 8 lbs. of fat and competed in his first bodybuilding show. His first place ranking can be attributed to following the Macroblolic Nutrition 45/35/20 Ratio."</i></p>
<p>Dave Hawk BEFORE & AFTER</p>		<p>Dave Hawk JR BEFORE & AFTER</p>		

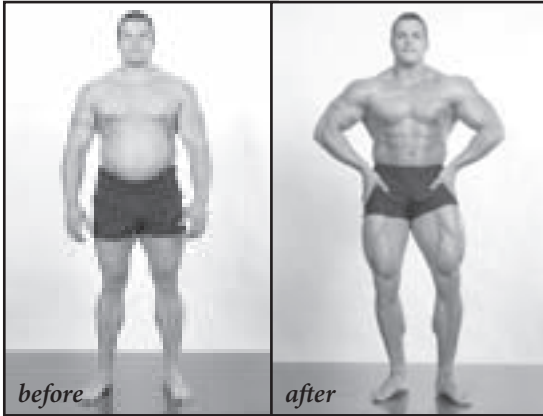
-Dave Hawk, IFBB Professional Bodybuilder

THESE PRO ATHLETES ARE ON MACROBOLIC NUTRITION!

	<p>Travis Claridge -Star Offensive Lineman in the NFL®</p> <p>← —</p>		<p>Mike Morris -IFBB Professional Bodybuilder</p> <p>← —</p>	
			<p>Jon Andersen -Top Professional Strongman Competitor</p> <p>— →</p>	

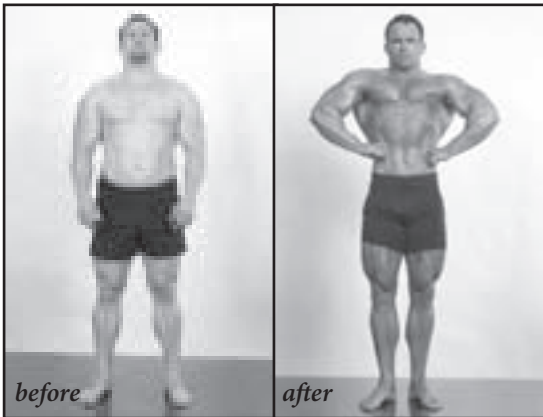
...Is Producing Amazing Results for YOU!

CHECK OUT THE AMOUNT OF MUSCLE THEY
PACKED ON WHILE SHEDDING BODY FAT IN JUST 12 WEEKS
WITH MACROBOLIC NUTRITION!



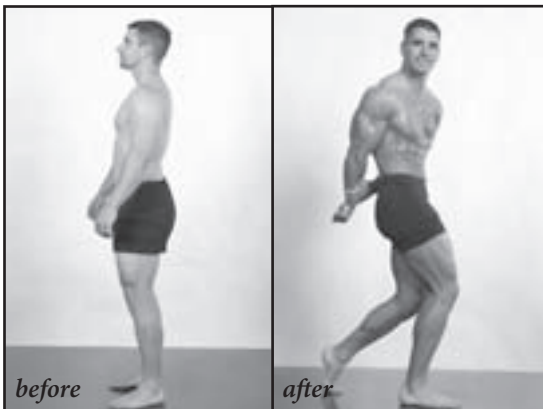
John Rearick Jr.

John added an amazing 7" to his chest and packed a combined total of 3 1/2 inches onto his arms, all while stripping 4" off his waist. He did it with MacroBolic Nutrition!



Greg Smyers

Greg went from a soft 232 lbs. to a bigger and more shredded 215 lbs. With MacroBolic Nutrition, Greg put size on his chest, arms and legs, all while becoming extremely chiseled!



John O'Day

John packed on 16 lbs. of solid muscle while taking off 3" from his waist. He made significant gains in his arms and chest while shredding up with MacroBolic Nutrition!

Macrobiotic Nutrition

BETTER BALANCED PERFORMANCE NUTRITION 45/35/20

The information contained in this book is based upon the research and personal and professional experiences of the author. It is not intended as a substitute for consulting with your physician or other healthcare provider. Any attempt to diagnose and treat an illness should be done under the direction of a healthcare professional.

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Macrobiotic Nutrition

BETTER BALANCED PERFORMANCE NUTRITION

45/35/20



You are about to experience a new level of fitness and performance beyond anything you've ever seen, felt or heard of before. The information contained within this handbook will show you how to blast through previously unconquerable goals, surpassing your performance expectations and paving the way for a complete body evolution.

As an athlete or fitness enthusiast, you probably understand the importance of food, diet and nutrition. In fact, I'm sure you're currently following some sort of diet or dietary guidelines along with a workout program to achieve your ideal physical condition. Hopefully, your dedication and commitment to diet and exercise has allowed you to see results and make progress. But what if you could make even better gains and non-stop progress just by making simple changes to your diet? No extra sacrifice—just better results! This can be achieved through Macrobiotic Nutrition.

I have dedicated the majority of my life to finding ways of increasing muscle mass and improving physical performance. It started with my own personal quest to excel in high school football and then as a National Level Competitive Bodybuilder. I was fortunate enough to have fairly good genetics for building muscle. However, I knew that in order to compete at the top-level ranks against people with equal or better genetics, I had to compensate through a superior training and nutrition program.

I devoted a lot of time researching nutrition and supplementation and their effects on muscle building, fat burning and performance. The extra nutritional knowledge I gathered and applied toward my program helped me excel further than myself or anyone else had expected. But through my research and personal experiences, I realized there was a lot of room for improvement in the sports supplements being offered to athletes. This realization ultimately led to the creation of Maximum Human Performance, Inc. in 1997, where our company mission is to produce cutting edge nutritional supplements based on the newest scientific methods available to us, and provide them to you.

Now, through my book, *Macrobiotic Nutrition*, and the development of the Macrobiotic Nutrition line of products, I can offer people the most critical element of all—Better Balanced Nutrition for Optimal Performance! Macrobiotic Nutrition isn't a fad diet or a quick-fix program, it's a long-term permanent solution. It's based on proven science and is substantiated by the many of world class and professional athletes who are my clients. Best of all, Macrobiotic Nutrition can be applied to anyone who wants to optimize muscle building, fat burning and performance, while offering additional benefits like controlled hunger, improved cardiovascular health, improved digestion and healthy joints. All of this can be achieved through 45/35/20 Macrobiotic Nutrition... and you are about to discover how!

Sincerely,

Gerard Dente
Author and President of MHP

I. 45/35/20 — The Lean Mass Equation

Most people realize that their eating habits and diet play a major role in the way they look and feel. Most, however, do not realize just how powerful a force “food” can be. Minor changes in the foods we eat can have a huge impact on our bodies. Food (carbohydrates, proteins and fats) controls and regulates every hormone and function of the body. Macrobiotic Nutrition’s prescribed macro-nutrient ratio of 45% carbohydrates, 35% proteins and 20% fats from select sources is designed to create the ideal metabolic and hormonal environment for maximum muscle building, fat burning and endurance.

The 45/35/20 ratio is “the Lean Mass Equation”. This ratio of nutrients is based on extensive research and scientific scrutiny of the performance nutrition field, as well as documented experiences with the precise nutrition your body needs to function at its best. Because let’s face it, if you work out, your nutritional requirements exceed those of the average person. Without the proper nutrition, you will never get the full benefit from your training efforts. In fact, by the time you finish reading this handbook, you’ll realize, without a doubt, that the reason why most people never reach their full potential is not from lack of effort in dieting or training, it’s from lack of proper nutrition.

WHY MACROBOLIC NUTRITION? IS IT BETTER THAN MY CURRENT DIET?

Why 45/35/20? If you’re a low carb dieter, you’re probably thinking, “NO WAY will I be able to lose body fat while consuming that many carbs”. Others may be thinking, “I need much more protein than 35%”, especially if you’re someone who reads bodybuilding magazines. The truth is, many aspects of Macrobiotic Nutrition may be very different from some of your current views and beliefs about diet and nutrition. But even if you *have* been making progress on your low-carb or high protein diet, once you discover how the proper balance and sources of nutrients can greatly impact the bodily functions and processes which influence muscle building and fat burning, you’ll make the switch to Macrobiotic Nutrition *instantly*—and you’ll be glad that you did.

ALL CALORIES ARE NOT CREATED EQUAL!

One of Macrobiotic Nutrition’s fundamental principles, “all calories are not created equal” (pertaining to all the macro-nutrients—carbohydrates, proteins and fats), is clearly proven. Many popular diets are based on the simple premise that caloric intake minus caloric expenditure will determine weight gain or weight loss. While this is true to an extent, it is way too simplified if your goal is to improve body composition by adding lean muscle mass and decreasing body fat.

The truth is, other diets don’t take into consideration very important factors such as the hormonal and metabolic effects of food. When carbohydrates, proteins and fats are consumed together in a meal, they behave differently than when consumed alone. Macrobiotic Nutrition will show you that when a 545-calorie meal comprised of the right carbohydrates, proteins and fats is eaten in the 45/35/20 ratio, it can have a vastly different effect than a 545-calorie low carb/high protein meal or a 545-calorie high carb meal.

But that’s not all. We’ll reveal how the 45/35/20 ratios optimize and regulate hormones and Macrobiotic Nutrition’s “net effect” on metabolic efficiency. You’ll discover how all of these components ultimately lead to

the amazing phenomenon, Macrobiotic Momentum, whereby your body continually becomes more efficient at building muscle and burning body fat. As scientifically advanced as these developments are, we will discuss them in easy-to-understand detail so you can apply them to your individual training program.

Don't worry about this being a boring diet either. We have prepared some really tasty Macrobiotic Meals for you. From quick meals to exotic specialty meals, they are all delicious and they are all Macrobiotic (check them out at www.macrobioticnutrition.com)! Once you see the changes and incredible results from this way of eating, you won't want to stop. That's just one of the reasons why Macrobiotic Nutrition is called, "the long-term permanent solution."

THE CORNERSTONE OF MACROBIOTIC NUTRITION

Macrobiotic Nutrition's 45/35/20 ratio is designed to make optimal utilization of macro-nutrients for the purpose they are best suited—consuming carbohydrates for energy and the regulation of blood sugar and key hormones insulin and glucagon, protein for its primary purpose to feed your muscles the amino acids they need to support muscle growth and recuperation, and fats as a secondary energy source, for the production of hormones, reducing inflammation, supporting cardiovascular health and controlling hunger. Fats also slow down digestion, helping to control insulin and glucagon, while also allowing for a slow steady release of amino acids from protein.

Excessive amounts or deficiencies in any of these macro-nutrients will negatively impact their ability to perform functions optimally. They will also negatively affect your ability to achieve optimal muscle building, fat burning and performance. Now it's time for you to discover just how each of the macro-nutrients influence chemical processes within the body, how they react with each other and why the 45/35/20 ratio is best.

II. 45% Carbohydrates

Many of you may be struggling to believe you can get lean with 45% of your calories coming from carbs. You'll soon find out how it's possible by choosing the right carbohydrate sources. Before we get into choosing sources, however, let's first discuss how critical carbs really are, and how you absolutely need them to increase strength, muscle growth and performance.

Carbohydrates are the most efficient nutrient source for the body's energy requirements, because they are more easily converted to glucose than are proteins and fats. Glucose (the basic carbohydrate unit) is used by every cell in the body for energy. Some of it is carried around in your bloodstream to supply your brain and other organs, but most of it is stored as glycogen (the stored form of glucose) in the liver and skeletal muscle. When blood sugar levels are too low, glycogen serves as a reserve for the body to meet its energy needs.

When you exercise, your body obviously burns more energy, and the body's need for blood glucose increases. Your body taps into the muscles' glycogen reserves to meet these energy demands. Glycogen is first derived from the carbohydrates you're eating. So, if you aren't consuming the optimal amount of carbohydrates, you're not going to have enough glycogen to perform optimally. This carbohydrate deficiency will negatively impact your training capacity. The bottom line is, without sufficient carbs, you will be physically incapable of pushing up extra weight for extra reps—it is that simple.

RESEARCH UPDATE:

A recent review on diet and anaerobic exercise (weightlifting) in the *Strength and Conditioning Journal* concluded that, “Diets containing less than 42% carbohydrates do not meet the energy demands or provide adequate glycogen stores for bodybuilders and their intense workouts”.

If you're taking an MRP (meal replacement powder) with less than 42% carbohydrates, it is not providing the energy you need to increase muscle mass and optimize performance. For example, a popular MRP on the market right now has 42 grams of protein and 23 grams of carbohydrates. With a total calorie count of 270 calories, only 34% of the calories in this MRP come from carbohydrates! According to the recently published scientific study mentioned above, the nutrition in this MRP WILL NOT provide adequate energy stores for your higher-than-average energy expenditure.

Another very important role of carbs is their “protein sparing” effect. Carbohydrates protect the protein in food and muscle tissue from being used as an energy source when blood sugar and glycogen are low. It is therefore critical for athletes and fitness enthusiasts to consume adequate amounts of carbohydrates to support their energy demands and prevent muscle breakdown.

LOW CARB DIETS... BURNING FAT AT THE EXPENSE OF MUSCLE

The huge media focus on low carb diets may have led you to believe that “the low carb lifestyle” is the proper way to get a lean, muscular physique. The truth is, carbohydrates

are too important a nutrient for you to completely restrict from your diet. You will never make the gains in size and strength that you're looking for on a low carb diet.

True, low carb diets can be effective in reducing body fat. If you have ever followed a low carb diet, odds are that you probably *did* lose some body fat, but you've probably also lost valuable muscle, or at the very least, hindered your ability to gain muscle by restricting carbohydrates. Your energy levels probably suffered as well. Here's why:

The fundamental theory behind low carb diets is that by restricting carbohydrates, the body's preferred source of energy, it resorts to stored body fat as an energy source. This is achieved through a process known as ketosis, in which the body breaks down triglycerides to be used as a source of energy. Ketosis is not nearly as efficient as carbohydrates are for energy or glycogen replenishment. It can also result in the body using protein (amino acids) from both food and muscle tissue (gluconeogenesis) for energy. This catabolic process is not desirable because it uses the same precious amino acids you need to build muscle and actually breaks them down instead.

Later, when protein is discussed, you will learn more about these amino acids and protein's importance. For now, please realize that athletes need adequate protein to support training, muscle growth and recovery. So, having your body cannibalize protein for energy from the foods you eat, or even worse, your "hard earned muscle", is a catastrophic disaster for anyone looking to improve their physique or muscular performance!

Another reason why low carb diets are not conducive to your goals of increasing lean muscle mass is because they virtually shut down insulin production. As you will soon discover, although you should avoid high insulin levels, you do want keep keep insulin stable, because it's anabolic and helps promote muscle growth.

IT'S SLOW CARB™ ... NOT LOW CARB

Make no mistake about it, you need carbs to perform, look and feel your best—the key is choosing the right carbs. Macrobiotic Nutrition places great emphasis on choosing your carbohydrate sources wisely, because while all carbohydrates yield 4 calories/gram, their impact on your body can greatly differ. Get familiar with the new term, "Slow Carb", because it represents the next frontier in healthy, performance oriented carbohydrate intake. For maximum muscle building, fat burning and energy, it's Slow Carb... not Low Carb! In determining the makeup of the right Slow Carb carbohydrate sources in your diet, we refer to the Glycemic Index.

Glycemic Index

The glycemic index (GI) was developed in 1981 as a way to classify carbohydrates. As defined by the Associate Professor of Biochemistry Jennie Brand-Miller at the Human Nutrition Unit of Sydney University Australia, the glycemic index of a food is a measure of the power of the carbohydrate content in a specific food to raise blood glucose sugar levels after being eaten.

The GI of a carbohydrate is determined by measuring the blood sugar levels after ingesting 50 grams of the carbohydrate in a fasted individual. Foods which measure a GI of 70 to 160 are considered high GI foods, while foods which measure less than 70 are usually considered low to moderate GI foods. The GI of a carbohydrate can be influenced by a number of factors: the fiber content, the ripeness, methods of cooking and processing, types of preservatives used and the other types and amounts of other macro-nutrients (proteins and fats) and micro-nutrients (vitamins, minerals) ingested with the carbohydrate.

The GI and Insulin

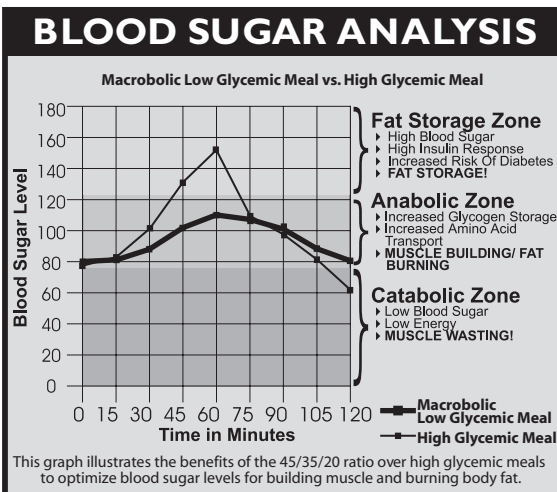
The reason why it is so important to measure a carbohydrate's impact on blood sugar (via the Glycemic Index) is because of its influence on insulin production, and in turn, insulin's effect on other critical hormones in your body. Insulin is a hormone, which is released by the pancreas in response to blood sugar levels. When you eat a carbohydrate, the faster that it is digested and converted to glucose, the more rapidly insulin is produced to stabilize blood sugar levels. These faster digested carbs are considered high GI because they cause a greater increase in glucose and insulin levels in the blood.

Detrimental Effects of High Insulin and High GI Carbs

Your goal is to avoid high insulin levels, and therefore high glycemic carbs, because high insulin levels suppress fat utilization and promote fat storage. Besides their effect on elevated insulin production, high GI carbs also elevate free fatty acids in the blood to further promote increased body fat. High GI carbs also have been shown to predispose the development of Type 2 Diabetes in insulin resistant individuals.

The rapid increase in blood sugar caused by high GI carbs can also have a negative impact on your performance. Often, the overproduction of insulin can result in low blood sugar levels or temporary hypoglycemia—a condition in which blood sugar levels drop below normal range. Hypoglycemia can cause fatigue, anxiety, perspiration, light headedness “delirium” and in severe cases, a coma. Needless to say, hypoglycemia can hinder your ability to train and perform at maximum capacity. Nothing will zap your energy, strength and performance like a bout of hypoglycemia during your workout.

For these reasons, it is obvious that high glycemic carbs should be avoided. But what makes the low GI carbs so special? Lower GI carbs (aka “Slow Carbs”), provide a slow, steady supply of blood sugar to maximize glycogen storage in your muscle and regulate three very important hormones that optimize muscle growth and fat loss: Insulin, Glucagon and Cortisol. Slow Carbs are also considered “muscle sparing” because they prevent the utilization and conversion of amino acids for glucose.



Keeping Insulin, Glucagon and Cortisol in Check— The Best Way to Reduce Body Fat

Insulin and Glucagon work conversely to keep blood sugar levels stable—Insulin promotes the storage of body fat, while glucagon mobilizes and burns it. Low GI or “Slow Carbs” provide a gradual supply of sugar into the bloodstream and stabilize insulin, which in turn, causes glucagon to elevate, increasing your fat burning potential. This is a scenario that you absolutely want to occur within your body!

Insulin and Cortisol, on the other hand, have a direct relationship—when insulin goes up, cortisol goes up and vice versa. Now, cortisol is a fitness enthusiast's worst nightmare. It's what we call a very catabolic hormone. It is produced in response to physical and emotional stress. So while you're training to stimulate muscle growth and burn body fat, your cortisol levels are blowing through the roof and breaking down muscle. By keeping insulin under control with Slow Carbs, you'll also help suppress the “muscle eating hormone”, cortisol. Again, this is a very favorable effect of Slow Carbs on your body.

The chart below lists the Slow Carbs (moderate or low glycemic) you should be eating as a part of the Macro-bolic Nutrition diet. It also lists the High Glycemic carbs that you should be avoiding:

Glycemic Index of Carbohydrate Foods

HIGH GLYCEMIC

Food Item	(GI)	Food Item	(GI)
White Bread	70	Cornflakes™	77
Bagel White	72	Special K™	84
Wonder Bread™	73	Rice Cakes, plain	94
Total Cereal™	76	Glucose	100
English Muffin™	77	Maltodextrin	107

MODERATE GLYCEMIC

Food Item	(GI)	Food Item	(GI)
Cranberry Juice	56	Banana(just ripe)	62
Baked Potato, russet	56	Long Grain Rice, white	64
White Rice, boiled	56	Spaghetti, Durum Wheat	64
Sourdough Rye Bread	57	Cantaloupe, raw	65
Pita Bread, whole wheat	57	Wholemeal rye bread	66
Sweet Corn	59	Cream of Wheat™	66
Bran Muffin	60	Grapenuts™	67
Couscous	61	Shredded Wheat™	67
Just Right Just Grains™	62	Cornmeal	68

LOW GLYCEMIC

Food Item	(GI)	Food Item	(GI)
Cashew Nuts	22	Banana, slightly unripe	42
Grapefruit, raw	25	Spaghetti, whole meal	42
Barley	27	Spaghetti, white	44
Lentils, boiled	28	Pumpernickel, whole grain	46
Peach, raw	28	Spaghetti, Semolina	46
Milk (skim)	32	Sweet Potato	48
Pear, raw	33	Orange	48
Milk (whole)	36	Brown Rice, steamed	50
Yogurt	36	Durum wheat	50
Apple, raw	40	Oat bran, raw	50
Strawberries, fresh	40	Kidney Beans	52
Chickpeas	41	Spelt wheat-flour multigrain bread	54
		Oatmeal	54

FIBER—THE FORGOTTEN CARB

Fiber is also an important component of Macrobiotic Nutrition. It is the most recognized of all carbohydrates in terms of disease prevention and general health, and it can be classified as two different types: soluble and insoluble. Insoluble fiber has merit in the realm of intestinal cleanliness and slowing down digestion through the GI tract, which allows for more thorough vitamin and nutrient absorption.

Soluble fiber, on the other hand, is invaluable for our theory of a calorie is not just a calorie. In a study published in *The New England Journal of Medicine* in 2000, a diet containing 50g of fiber (25 soluble, 25 insoluble) can lower cholesterol, improve glycemic control and decrease hyperinsulinemia. These findings are very important to Macrobiotic Nutrition's emphasis on controlling the glycemic index of meals. By ingesting soluble fiber at mealtime, we can prevent spikes in the blood sugar and regulate the overall secretion of insulin.

In the *American Journal of Clinical Nutrition*, 1991, natural oat fiber reduced blood glucose and insulin levels. The soluble fiber used in this study was beta-glucan. Oats and barley are good natural sources of beta-glucan and are the primary sources of carbs used in your Macrobiotic MRP. In a 1994 study published in *Diabetic Medicine*, patients fed wheat farina with oat bran showed a marked decrease in postprandial blood glucose levels and lower overall insulin secretion.

These studies solidify the reason why fiber is of great importance in Macrobiotic Nutrition. Fiber's impact on maintaining lower blood glucose and lower insulin levels are all conducive to increased GH levels, increased fat burning and decreased cortisol—everything your body needs to increase muscle and burn body fat.

III. 35% Protein

Protein is important because it is the source of amino acids (the building blocks that your body uses to manufacture hormones, enzymes, components of the immune system, blood proteins, connective tissue and MUSCLE). Unlike carbohydrates, protein deficiencies cannot be as easily compensated for. In the absence of carbs, the body uses protein (acquired from gluconeogenesis) and fats (acquired through ketosis) to maintain blood sugar and glycogen.

In the absence of protein, however, your body cannot manufacture additional proteins from carbohydrates or fats. When the body's protein requirements are not met, it taps into muscle tissue for amino acids to maintain vital functions. This condition is what is called 'a catabolic condition', or 'catabolism', and it can result in a number of negative effects including impaired manufacturing of hormones, compromised immune functions and loss of muscle tissue. This is precisely why protein intake and quality sources are such important components of the Macrobiotic Nutrition Lean Mass Equation.

AMINO ACIDS

Amino acids are the building blocks of all proteins. Different proteins are made up of different concentrations of amino acids. The value of a protein in regard to new tissue growth is dependant on the concentration of amino acids. Since some amino acids are found in smaller amounts in some foods, these amino acids will be depleted faster, which can hinder muscle growth. These amino acids are considered 'limiting'. The way to avoid 'limiting' amino acids and the catabolic effects of muscle breakdown is to vary protein sources taken in throughout the day. Macrobiotic Nutrition recommends utilizing various protein sources to give a better spectrum of amino acids, since all protein sources have different amounts of each amino acid.

The Critical 5 Amino Acids

Macrobiotic Nutrition prescribes that 35% of your calories come from quality protein sources high in the 'Critical 5' amino acids: glutamine, arginine and BCAA's (leucine, isoleucine and valine). These amino acids are of utmost importance to support muscle growth, strength and recovery after resistance weight training and exercise. You'll discover later, how the Macrobiotic Nutrition supplements are loaded with Critical 5 aminos for these very reasons.

HOW MUCH PROTEIN DO YOU REALLY NEED?

As a rule, athletes and individuals who work out have higher demands for protein than sedentary individuals. After a workout, muscle growth is stimulated by increased transport of amino acids into the muscle tissue by insulin. Increased amino acid transport increases nitrogen, which is critical for muscle growth. Additionally, certain amino acids in higher quantities increase the release of anabolic hormones like growth hormone (GH).

Many people think that they need much more protein than their bodies can handle or need. In fact, you may be thinking that 35% is not enough to ensure you meet your protein requirements. If you do the calculations,

depending on your goal and workout program, you'll see that 35% plus your high protein meal or shake before bedtime, represents as much as 1.5 grams per pound of body weight. If you're following the Macrobiotic principles, 35% is not only adequate, it's optimal!

It's all about efficiency. Macrobiotic Nutrition is designed to be protein sparing, allowing for maximum utilization of protein for the building and repair of muscle tissue. First, if you remember from our discussion on carbs, you will be making more efficient use of proteins with the Macrobiotic Nutrition diet than with any other program. Secondly, consuming quality proteins with high biological values will supply larger amounts of key amino acids and allow you to retain more nitrogen, giving you a positive nitrogen balance. Third, consumption of 20% fats will serve as a back up energy source, as fats are a more dense and preferred energy source than protein.

PROTEIN OVERLOAD SYNDROME... ARE YOU CONSUMING TOO MUCH?

Consuming too much protein can have some detrimental effects. Invariably, your body uses amino acids from protein you ingest for the anabolic process of building muscle. However, when you ingest too much protein at once, the surplus aminos can take on a different biochemical process. Excess aminos can be converted to fat and glucose, and during this process, deamination takes place. Deamination can lead to an excessive build up of ammonia—a nitrogenous waste product that is toxic to the cells of the body. It can also cause muscle fatigue. Excess protein can also cause the over production of another nitrogenous waste product, urea. While urea is a natural by-product of amino acids, it can nevertheless be damaging to your kidneys in excess.

WHAT IS “THE BEST” PROTEIN SOURCE?

Another key element of Macrobiotic Nutrition's protein guidelines is to combine various protein sources to improve the profile, release rate and nitrogen retention from the amino acids you're consuming. Why? Because the amino acids that make up these proteins must continually be supplied to your body in order to maintain a positive nitrogen balance.

Different proteins are made up of different concentrations of amino acids and each has a different release rate. Some protein sources are low or even lack certain amino acids. Combining protein sources helps to compensate for deficiencies in amino acids from any one single source of protein.

Macrobiotic Nutrition places great importance on choosing quality protein sources, using the Biological Value (BV) and PDCAAS methods of protein rating. These are two of the most recognized testing measures. With Macrobiotic Nutrition products like Macrobiotic-MRP, we go one step further, using a highly evolved source of protein, Probiotic protein, which combines whey protein concentrate, soy isolate and casein to give you the best possible Critical Five Amino Acid Score (CFAAS) in a protein supplement.

ABSORPTION RATES OF PROTEINS

Another important factor you must consider to avoid falling into a negative nitrogen balance is the absorption rates. The absorption rates of various protein sources have become a hot topic in the supplement industry lately. This debate has been spurred by the whey and milk protein industries in their fight for market share in protein supplements.

Whey protein is currently the most used supplemental source of protein in sports nutrition and companies have always marketed its “fast absorption” properties. But a recent study comparing nitrogen retention between

whey and casein quickly denounced “fast absorption” as a benefit! The study showed that casein was superior in providing nitrogen retention through a slower release of amino acids into the bloodstream.

Whey is a good source of protein. It has a high BV and PDCAAS, and it contains high amounts of BCAAs, but its fast rate of absorption leads to a short and limited supply of aminos. This can cause your body to go into a catabolic state of negative nitrogen balance and start breaking down muscle tissue to supply the necessary amino acids it needs to maintain blood amino acid levels. Also, because whey is absorbed so quickly, the body can't utilize all that is ingested when consumed in large amounts. These can lead to Protein Overload Syndrome, in which the aminos are converted to fat and glycogen, while ammonia and urea are overproduced.

Macrobiotic Nutrition emphasizes the importance of the absorption rate of proteins for nitrogen retention. Different proteins raise blood amino acid levels at different rates. This is termed “release rate”. Ideally, your protein supplement should provide some fast release proteins (whey) to quickly saturate amino acid stores, and then slower release proteins (soy and casein) to continually feed your muscles.

Proteins can be categorized into 3 release rates: fast, medium and slow. The debate as to which is best for athletes has been a heated one in recent years. The truth is that combining all of the protein types is ideal!

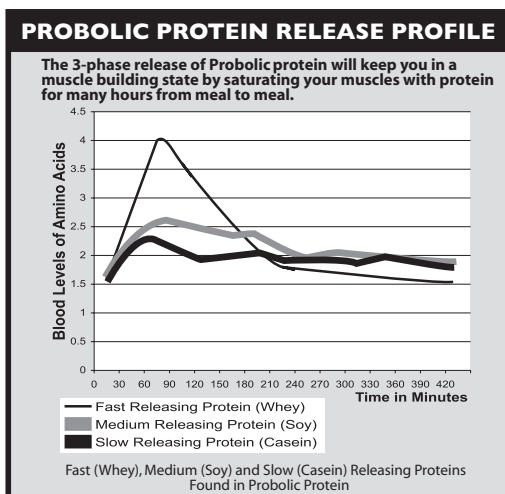
Fast release proteins: Increase blood amino acid levels rapidly, but amino acid levels also fall rapidly. Sources: Whey protein isolate, whey protein concentrate.

Medium release proteins: Take a little longer to raise blood amino acid levels and drops slower. Sources: Milk protein isolate, soy isolate, soy concentrate.

Slow release proteins: Provide a gradual increase and maintain blood amino acid levels for a longer duration of time. Sources: Casein, whole foods.

In response to the absorption rate debate, MHP's research team has engineered Probiolic® protein—the protein matrix used in all Macrobiotic Nutrition products that allows for a continual supply of amino acids to the muscle tissue, especially the Critical 5 aminos. This protein literally ensures a positive nitrogen balance and an anabolic (muscle building) state. The following figure illustrates Probiolic protein's superior amino acid release rate. You'll discover more about Probiolic protein and its amazing anabolic attributes later.

STAY ANABOLIC: WHAT PROTEINS AND WHEN?



One of the major components of Macrobiotic Nutrition is meal timing. The Macrobiotic 45/35/20 ratio is designed to synchronize and optimize each macro-nutrient's function. Protein must be ingested frequently throughout the day to deliver a steady supply of amino acids into the blood to be delivered to muscle tissue, providing a positive nitrogen balance and an anabolic “muscle building” environment. If blood amino acid levels drop, your body will pull these amino acids from muscle tissue, putting you in a negative nitrogen balance and catabolic state. Your body will actually “eat away” your hard earned muscle to maintain blood amino acid requirements.

For a highly trained athlete, this can easily occur if you are not careful. Intense training depletes amino acid stores, and to make matters even

worse, building more muscle requires even more aminos. As you can see, it is extremely important that you take in adequate amounts of protein (but not *too* much) from sources with high concentrations of essential aminos, especially the Critical Five aminos.

After Training

Intense training has a huge impact on your body's metabolic processes. The hour immediately after an intense workout is what we call the "anabolic window". During this anabolic window, the hormonal landscape is primed for muscle building—testosterone is high, growth hormone is high and insulin is low. To take advantage of the "hormone heaven", it is important to consume a meal high in quality protein. And to avoid catabolism, you must consume adequate protein from quality sources every three to four hours as part of a Macrobiotic meal throughout the day.

Nighttime

Your nighttime nutrition needs are different. This is the only time that you should deviate from the 45/35/20 ratio. Nighttime is a critical time to take a protein supplement. The many hours of fasting during sleep can lead to negative nitrogen balance and break down muscle. You want to *build* muscle during sleep, not break it down. Consuming a slow release protein before going to bed will help prevent catabolism during the many hours of fasting while you sleep. I recommend that you consume an additional .25 grams of protein per pound of bodyweight at night from a sustained protein source. Also, keep carbohydrate intake as low as possible to help stimulate the release of growth hormone while you sleep.

For example, a 200 lb. athlete should consume an additional 50 grams of protein ($200 \times .25$) from a low carbohydrate protein supplement right before bedtime. A 165 lb. 'hardgainer' should consume an additional 41 grams of protein ($165 \times .25$) right before bed.

While whole food provides a slow release of amino acids, which is what you want to maintain blood amino acid levels during the night, they can wreak havoc on your stomach. Food proteins, especially meat and dairy are acidic. They can cause stomach discomfort and heartburn during the night. Conversely, a protein shake containing a blend of whey, soy and casein will give you a preferred sustained release profile and is also less acidic and easier to digest. This kind of protein supplement is ideal for nighttime protein needs.

In the chapter entitled, "Engineering the Perfect Supplements" you'll be introduced to Probolic-SR, a new and groundbreaking protein supplement that is designed for you to take alone before bedtime or with carbs during the day as part of a Macrobiotic meal to create the ideal hormonal profile. Probolic-SR is the ultimate anytime protein source. It induces anabolism (muscle growth) and prevents catabolism (muscle breakdown).

THE FINAL WORD ON PROTEIN!

As you can see, it's not just the amount of protein that matters—the source of protein is just as important. As far as food sources go, top recommendations are lean cuts of beef, white meat chicken and turkey, tuna, salmon and eggs. Regarding eggs, don't just eat the whites. The yolk provides key essential amino acids and lecithin, and is a way to meet your 20% dietary fat requirements. Include one yolk for every four eggs (1 whole egg plus 3 egg whites). For more information on protein sources, see the Protein Content table at the end of this chapter. As far as supplement sources go, consume protein supplements that contain at least two protein sources to improve the amino acid profile and release rate. With Probolic-SR, you can't go wrong.

PROTEIN RECAP

Remember, with Macrobiotic Nutrition your protein should provide the benefit it is intended for—to support muscle building. Consuming high quality proteins in the 45/35/20 ratio will serve this purpose. Here is a recap of what you want to do and what you can expect from following the Macrobiotic Nutrition program.

- 1 Consume 35% of your total daily calories from protein sources high in essential and Critical 5 amino acids.
- 2 Consume different sources of protein. For example, one meal of eggs and egg whites, one meal with tuna, one meal with chicken, some red meat at one meal, and a couple of supplement meals will provide a wide variety of protein release rates and amino acid profiles. This variety will ensure that you receive high levels of all the amino acids necessary for muscle growth.
- 3 Remember, different proteins have different scores, such as biological value (BV), so a variety of the highest scoring protein sources is the best.
- 4 Eat at least 4 to 6 meals per day, 3 to 4 hours apart. Research shows that meal frequency is important to maintain nitrogen retention and improve protein synthesis. It also increases your metabolism and ability to burn fat.
- 5 Supplements should be chosen wisely and taken at critical times of the day. A supplement combining whey, soy and casein provides a quick, medium and slow release of essential amino acids along with all of the Critical Five amino acids.
 - a. Use a Macrobiotically balanced meal supplement during the day.
 - b. Consume an additional .25 grams of protein per pound of bodyweight at night from a sustained protein source such as Probolic-SR.

If you follow these protein guidelines, you will remain in an anabolic (muscle-building) state 24/7. Remember, your best 23 hours of growth potential each day are the 23 hours after you train, but you need to supply your body with the building block “aminos” if you want to grow!

Protein Content Table

Source	Portion	Cal	Prot	Fat	Carb
Boneless and skinless chicken breast	4 oz	130	27	1.5	0
Pork Tenderloin	4 oz	162	21	8	1
Ground Turkey	4 oz	170	20	9	0
Beef Tenderloin	3 oz	200	23	11	0
Ground Beef - 95% lean	3 ½ oz	137	22	5	0
Turkey Breast	3 ½ oz	110	22	2	0
Tuna	6 oz	220	41	5	0
Salmon Filet	7 oz	281	40	12	0
Eggs, large whole	1	75	6	5	0.6
Egg White, large	1	17	3.5	0	0.3

IV. 20% Fats

Fats are as essential as any other nutrient in the human body. They help you absorb fat-soluble vitamins A, E, D and K, play a critical role in creating the optimal hormonal profile, aid in digestion and have many other benefits. Yet, fat consumption needs to be monitored because while certain sources offer health benefits, others can present serious health risks including cardiovascular disease, cancer and obesity.

Macrobiotic Nutrition recommends that 20% of your calories be derived from fats. After all, your body is going to need this fat, primarily in the form of fatty acids, in order for you to maximize the amount of muscle you're going to put on. The fats you choose should come from the naturally occurring fat found in the lean animal protein sources like chicken, beef, tuna, salmon and egg yolks along with other select sources high in essential fatty acids such as seeds, nuts, olive oil and flaxseed oil. Even though certain animal based protein sources contain saturated fat, selecting the leanest cuts will ensure that you keep saturated fat at a safe level.

IMPACT ON DIGESTION

Fats actually help slow digestion of a meal, delaying the release and absorption of nutrients into the blood. This delayed release helps lower overall glycemic response of a meal and keeps the blood sugar from spiking. Also by slowing down the digestion of both carbohydrates and proteins, fats help to sustain the energy provided by carbs and the supply of amino acids to muscle tissue. These are important functions of fat for maximum performance and muscle building.

THE AMAZING OMEGA-3's

Essential fatty acids are very important to health and performance. In particular, the Omega-3 family of essential fatty acids is involved with insulin secretion and insulin sensitivity. This is extremely important to Macrobiotic Nutrition, since our emphasis is on low glycemic carbohydrate sources and optimizing insulin levels at specific times of the day. This will result in increased glycogen storage leading to fuller, harder muscles and increased energy storage. It will also improve amino acid transport to muscle tissue.

Omega-3 fatty acids also play a role in alleviating joint pain and inflammation. As you may have found, joint pain and inflammation can sideline your ability to train and perform optimally and hinder your progress. Specifically, Omega-3 fatty acids have been shown to decrease COX-2 (cyclooxygenase)—the enzyme associated with joint degradation—and decrease the cytokines (messenger chemicals) associated with inflammation. Simply incorporating a high Omega-3 source like salmon into your Macrobiotic diet or supplementing with Omega-3's (especially from fish sources) may be very beneficial in alleviating your joint pain that stems from training.

THE HORMONAL ROLE

The formation of hormones is extremely important for muscle growth and the reduction of body fat. Testosterone is an androgenic hormone responsible for male characteristics such as facial hair, body hair, deepened voice, male sexual functions and muscle growth. Most males, especially bodybuilders, want to have as much testosterone floating around in their bodies as possible. Studies show that you must take in a minimum of 20 percent of your total calories from fat (yes, the same amount recommended by Macrobiotic Nutrition) to main-

tain normal testosterone synthesis. Saturated fat is the preferred form of fat for the biosynthesis of cholesterol to testosterone. This important need for saturated fat is another reason why I believe in consuming protein sources like red meat and whole eggs. Fat also increases the release of CCK (cholecystokinin), a hormone like cytokine that sends a message to the brain that the body is not hungry any longer.

Couple the anti-inflammatory, hormone producing and the insulin modulating effects with the digestive benefits of fat, and you'll see why fat is essential in your diet. Just be sure to keep track of how much fat you consume because at 9 calories per gram, the calories can add up pretty quickly. Sorry, this isn't the Atkin's diet, so forget about the crisp bacon sizzled in butter!

DANGER: LOW CARB DIETS THAT ARE HIGH IN SATURATED FATS CAN HAVE NEGATIVE EFFECTS ON YOUR TRAINING AND YOUR HEALTH!

The most popular low carbohydrate diets allow for a higher than normal intake of saturated fats. Although a limited intake is good for the common athlete, consuming too many saturated fats is *not* good, and can have *disastrous* effects on training. Diets high in saturated fat from various food sources (both animal and vegetable sources) have been associated with increased risk of certain types of cancers (e.g., colon cancer) and of coronary heart disease (CHD). High intake of saturated fat has also been shown to increase cholesterol build up in your arteries, in turn restricting blood flow and making the heart work overtime—a scenario you don't want if you train hard. Increases in saturated fat intake (and trans fat) have also been noted to change the ratio of LDL (bad) and HDL (good) cholesterol in the body, which is also something that athletes and health conscious people do not want.

V. The Macrobiotic Nutrition Anabolic Checklist Review

Macrobiotic meals are designed to keep your body running optimally for approximately three hours. Here's a checklist as to what you can expect by following the Macrobiotic Nutrition program during the day:

- Sufficient supply of carbohydrates to meet energy demands.
- Controlled insulin release to prevent the formation of triglycerides into body fat.
- Controlled insulin release to shuttle amino acids and glucose to muscle tissue.
- Raised glucagon to increase fat burning.
- Lowered cortisol to prevent muscle tissue breakdown.
- Steady supply of amino acids from quality protein sources to maintain positive nitrogen balance.
- Supply of fat and EFA's to support hormone production, prevent inflammation and slow digestion to control blood sugar and amino acid release.
- Maximized thermogenic effect of food (calories used to digest a meal).

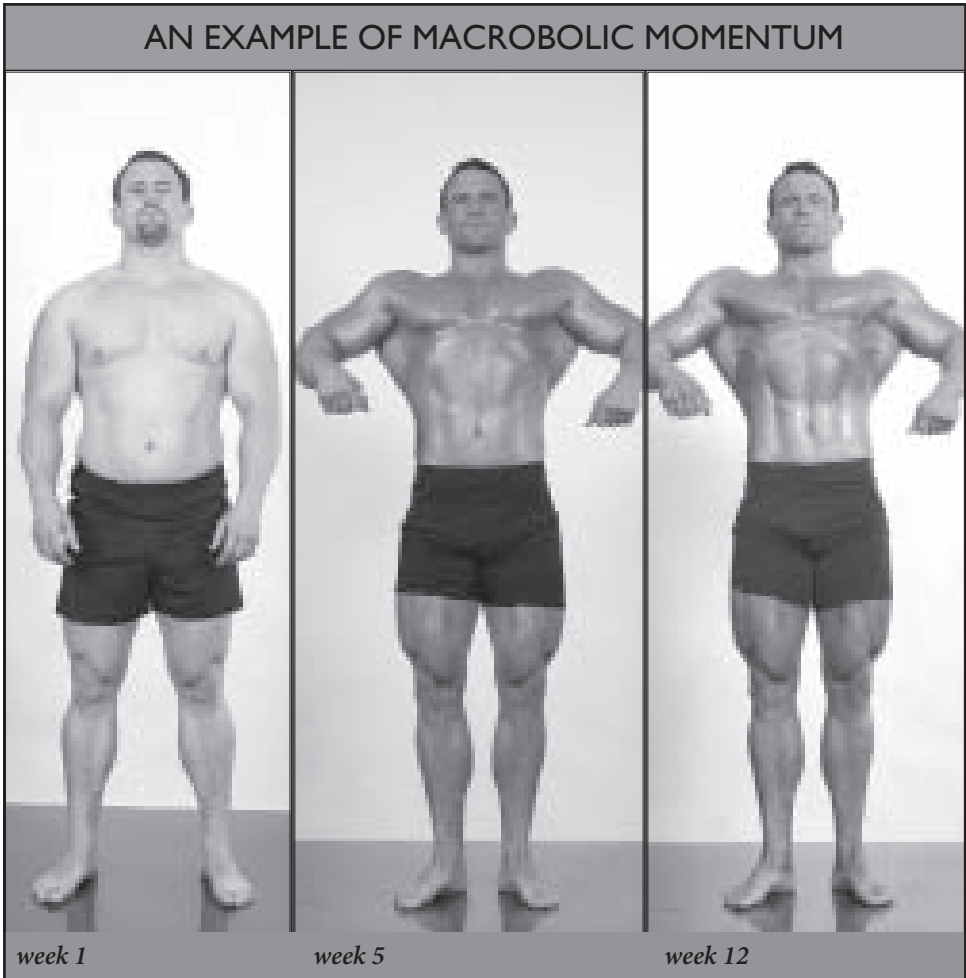
After a Macrobiotic meal, all of these great things are going on at once. Your body is running optimally and efficiently. This is where meal frequency becomes important. A Macrobiotic meal is only going to fuel your body for so long. Eating every 3 to 4 hours during the day is recommended to keep your hormone levels, blood sugar levels and nitrogen retention in check. If your busy schedule doesn't allow for you to eat that often, the Macrobiotic-MRP and Macrobiotic bars introduced in the next chapter are a great way to get the frequent nutrition you need.

Nighttime is a different story. You need to keep insulin low and keep nitrogen high during the nighttime fasting hours with a meal high in protein and low in carbs. MHP's Probiotic-SR Protein uses a patented technology to sustain the release of amino acids for up to 12 hours, ensuring a positive nitrogen balance. You will learn more about Probiotic-SR in the next chapter. For now, let's look at what your body is receiving from Macrobiotic Nutrition in our nighttime checklist:

- Steady supply of Critical 5 amino acids from a whole food protein source or Probiotic-SR shake to maintain nitrogen balance during sleep.
- Stabilized insulin levels due to restricted carbohydrate intake and additional essential fatty acid consumption.
- Elevated HGH due to low insulin levels.
- Increased fat burning due to raised glucagon, controlled insulin and the thermic effect of digestion.

MACROBOLIC MOMENTUM

Yes, as you can see from the Macrobiotic Checklist, everything is in check—your body is working at maximum efficiency. When you wake up it starts all over again. Every day, 24/7, your body is running optimally, fueling you with energy and helping you build muscle and burn body fat! Being in an anabolic state throughout the day, day after day, is going to allow you to continually pack on lean muscle. And if you monitor your calories correctly, you will continually burn body fat. In fact, as your muscle mass increases, your caloric requirements will increase. It takes additional calories to maintain muscle mass. So, as your muscle mass increases, your BMR and caloric intake increases. This phenomenon is called ‘Macrobiotic Momentum’.



VI. Engineering the Perfect Supplements

Since many of us have busy schedules and don't always have the time to sit down and eat like full time athletes and bodybuilders (let alone cook and prepare the meals), supplements can offer a quick and convenient alternative. As a result of this, the number of "meal replacements" or "MRP's" that line the shelves of your local supplement store has grown (and continues to grow) by leaps and bounds. Unbeknownst to you, however, most every MRP sitting on that shelf is plagued with HUGE INADEQUACIES.

Manufacturers that produce MRP's often use inferior quality, high glycemic carbohydrate sources like maltodextrin to cut down on product costs. They also use single source or lower quality proteins. What's the problem, you say? These cheaper ingredients are NOT utilized efficiently by your body, nor are they combined in the right ratios to optimally fuel your body. In fact, prior to the recent development of MHP's Macrobiolic-MRP and Up Your MASS meal supplements, there hasn't been a single nutritional supplement that provides the precise 45/35/20 Macrobiolic Nutrition ratio you need to perform and look your best.

Why? For one, most supplement companies don't have a clue as to how bodybuilders and athletes really eat and what they really need to grow. Secondly, designing a Macrobiolic supplement (or in essence, "food") poses many challenges, namely in the areas of cost, flavor and functionality. After all, how do you formulate an inexpensive product with mega doses of expensive ingredients such as low GI carbs and quality proteins? More importantly, how do you make it taste incredible without using boatloads of sugar?

After years of research and development and a huge financial investment, my company, MHP, in collaboration with some of the world's leading food scientists and flavor specialists, has developed the first-ever Macrobiolic Nutrition supplements. Through them, you can get the EXACT same Macrobiolic Nutrition as professional bodybuilders and athletes in a convenient supplement—without hours of food preparation or having to pound down plates of chicken breast and buckets of rice.

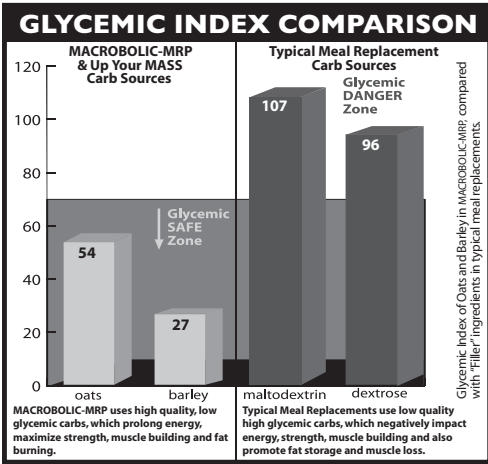
MACROBOLIC[®] AND Up Your MASS[®] SUPPLEMENT LINES BY MHP



The Macrobiolic and Up Your MASS shakes and bars provide the precise 45/35/20 ratio of carbohydrates, proteins and fats to create the ideal metabolic and hormonal environment you need for increased muscle size, strength and endurance, all while burning body fat. What makes them so special and unique from everything on

the market is their advanced, precisely engineered macro-nutrient blends. These blends were formulated specifically for the Macrobiotic Nutrition and Up Your MASS supplements to provide the absolute highest quality, most functional ingredients in the precised 45/35/20 ratio.

Slow Carb™ Glycemix LGI®: Carbohydrates are the primary source of energy and are of vital importance to exercise performance, but high glycemic carbs like maltodextrins and sugars (dextrose, sucrose) can have a negative impact on performance and body composition. That doesn't stop most companies from using them. You'll find mega-doses of these cheap, low quality ingredients in most of the so-called "gainers" and so-called



"MASS" products on the market. Yeah, you'll gain with them...gain fat. So why do these companies use these ingredients? Because they're cheap...AND...because they think you don't know any better. Well, now you do.

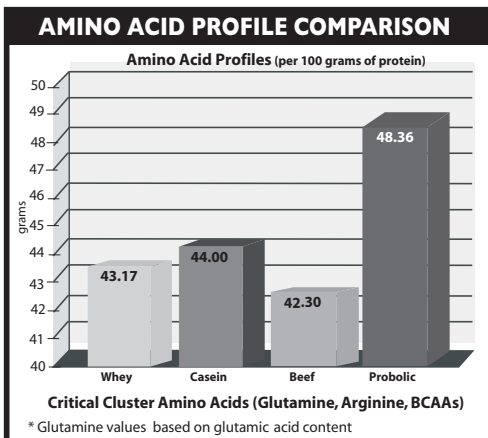
The Macrobiotic and Up Your MASS supplements use a unique combination of low glycemic carbohydrates from two of the best possible carbohydrate sources – oats and barley. These low GI carbs provide sustained energy, improved amino acid transport and improved nitrogen balance. Most importantly, they stabilize blood sugar levels, improving the "hormonal profile" of glucagon insulin and GH for accelerated fat burning and optimum muscle building.

Probiolic® Anabolic Protein Matrix: As the "know it all" writers and industry people debate over the best source of protein, do yourself a favor and go

train. Because the real truth is that ALL PROTEIN SOURCES HAVE UNIQUE BENEFITS! You should be eating and supplementing with a variety of protein sources.

In fact, you should be combining your proteins to get the best amino acid profiles and absorption rate. Well, MHP's research and development team and the "real deal" protein technology guys at Supro® have formulated Probiolic protein. It provides the ideal amino acid profile from fast, medium and slow release-rated proteins for **both short and long-term nitrogen retention.**

A proprietary sustained-release blend of high quality protein sources (whey concentrate, Supro® soy protein isolate and casein), Probiolic provides large amounts of glutamine, arginine and BCAA's, which are absolutely critical for muscle building and recovery. Glutamine has even been shown to be anti-catabolic (preventing the break down of muscle tissue).



Whey Protein Concentrate: WPC provides quick assimilation and amino acid uptake. The quick release saturates your muscles with high levels of glutamine and branch chain amino acids. Whey also contains growth factors such as EGF (Epidermal Growth Factors), which increase the uptake of nutrients and other growth factors by the intestinal cells, and IGF-I, which stimulates muscle growth.

Supro® Soy Isolate: Supro® is the gold standard in soy protein and has been well researched and studied for its many benefits on sports performance. Supro® provides a medium release profile and supplies large amounts of the "Critical Five" amino acids – glutamine, arginine, leucine, valine and isoleucine.

Caseinate: Caseinate provides a slow release profile to keep your muscles in a positive nitrogen bal-

ance, ensuring an anabolic environment 'round the clock. This slow release is important in preventing muscle wasting during training and in between meals.

Lipobolic EFA Complex: DON'T IGNORE FATS. Essential fatty acids are extremely important nutrients for health and performance — especially for hardcore athletes. The right sources of fats help reduce inflammation, improve hormone functions and provide energy. They also slow down the digestion of carbohydrates and proteins, stabilizing insulin release and improving nitrogen retention in the process.

The lipid complex in MacroBolic and Up Your MASS supplements contains a select array of functional EFA's, including flax, CLA, borage oil and a superior Omega-3 complex, all of which help your ultimate goals of adding muscle mass and reducing body fat.

These ingredients are very expensive. And that's why you typically won't see them in any other products. The only way to create a "true" MacroBolic supplement, however, is to spare NO expense. MHP truly believes that because bodybuilders and strength athletes put so much effort into their training, they shouldn't compromise on their nutrition.

KEY INGREDIENTS IN THE MACROBOLIC NUTRITION LIPOBOLIC EFA COMPLEX

The fatty acid blend in the Lipobolic EFA complex consists of hand-selected fats that have been combined in precise ratios.

Flaxseed oil — has proven cardiovascular benefits such as preventing vascular obstruction, which will directly affect your pumps. Flax is a great source of Omega-3, 6 & 9 fatty acids, particularly Omega-3 fatty acids. One of them is alpha linolenic acid (ALA). The body turns ALA into Eicosapentaenoic acid (EPA), an Omega-3 fatty acid, which in turn converts to beneficial hormone-like substances called prostaglandins. These help with proper hormone regulation and function and can also convert into Docosahexaenoic acid (DHA), which is essential for normal visual and neurological (nervous system) functioning.

Borage Oil and Evening Primrose Oil — both great sources of the important Omega-6 fatty acid, GLA, that the body converts to a hormone-like substance called prostaglandin E1 (PGE1). PGE1, traditionally used for arthritic conditions may control inflammation and improve recovery after heavy training. Clinical research shows that Borage Oil and Evening Primrose Oil help to maintain healthy joint flexibility and cholesterol levels.

CLA (Conjugated Linoleic Acid) — an effective supplement for supporting fat loss and increasing lean body mass. CLA has been shown to slow the loss of muscle tissue in catabolic conditions thereby promoting muscle growth. One experiment showed that certain fats related to CLA produced a significant increase in skeletal muscle protein synthesis rates. CLA is a must have for the athlete looking for the extra edge to lean out.

MCT's (Medium Chain Triglycerides) — important fatty acids that provide energy (much like carbohydrates do) and function differently from conventional fats. In intense exercise, MCT's prevent the breakdown of the muscle tissue, since they produce ketones, which are used directly by the muscle to produce energy and reduce muscle loss. MCT's spare glycogen, prolonging endurance while also improving the absorption of amino acids, which are critical for muscle tissue repair. MCT's improve the absorption of calcium and magnesium, which improves muscle contraction, and have also been shown to increase thermogenesis, leading to fat loss.

VII. Enhancing the Macrobiolic Nutrition Effect

There's no doubt that you'll see and feel some incredible results from following Macrobiolic Nutrition as the core of your program. Add the special Macrobiolic and Up Your MASS muscle building nutrition products, and your results will be phenomenal! But if you're like just about every champion athlete in the world today, you want to know that you're doing everything in your power to **PACK ON POUNDS OF LEAN MUSCLE MASS—AS FAST AS HUMANLY POSSIBLE!** Whether you want to get bigger faster, stronger faster and/or leaner faster, there are extra measures you can take to enhance the Macrobiolic Nutrition experience.

GETTING BIGGER AND STRONGER FASTER

Method #1: Use a Truly Anabolic Protein

In order to achieve maximum muscle growth, you must supply adequate amounts of amino acids to your muscles. It's because of this very fact that bodybuilders take in a good dose of protein every few hours. But you can't just supply *any* kind of aminos to your muscles. As discussed in chapter 3 on Protein, there are certain amino acids, called the Critical 5 amino acids—glutamine, arginine and BCAA's (leucine, isoleucine and valine)—that are more important than others for stimulating and supporting muscle growth. Also of a great importance is the rate at which protein supplies these amino acids. These important factors are often overlooked in protein supplements like straight whey protein, that are available in the market place today.

After years of product research and development, however, MHP has been able to engineer a protein that provides the needed continual supply of Critical 5 amino acids to stimulate muscle growth and prevent muscle wasting.

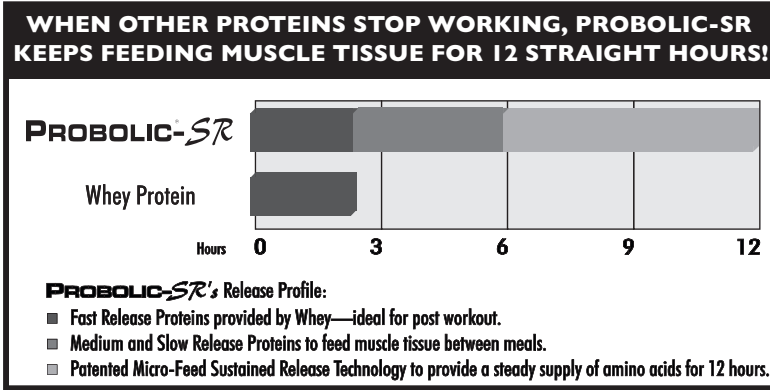
Probiolic®-SR
Supplies Critical Amino Acids for up to 12 Hours!



MHP has formulated the most anabolic protein available—Probiolic-SR. The engineered protein matrix in Probiolic-SR is precisely formulated to supply the absolute highest levels of Critical Five amino acids. It also delivers these aminos in a fast, medium and slow “release profile” to your muscles, which is further enhanced with the patented 12 Hour Sustained Release Micro-Feed Technology. So, not only are you getting the highest quality muscle building amino acids, your muscles continue to feed on these aminos for up to 12 hours! Probiolic-SR is truly setting new standards in the bio-efficiency and anabolic effects of protein, of-

Amino Acid Profile	
Mg Per 100g of Protein	
Alanine	4,230mg
Arginine	7,040mg
Aspartic Acid	11,130mg
Cystine	1,250mg
Glutamine*	21,710mg
Glycine	3,830mg
Histidine	2,600mg
Isoleucine	5,950mg
Leucine	7,650mg
Lysine	6,500mg
Methionine	1,380mg
Phenylalanine	5,100mg
Proline	5,430mg
Serine	5,180mg
Threonine	3,890mg
Tryptophan	1,280mg
Tyrosine	3,860mg
Valine	6,010mg
Total Amino Acids	104,020mg
Critical Five Amino Acids	48,360mg
*as Glutamic Acid	

cially making it the most bio-efficient and anabolic/anti-catabolic protein available.



Method #2: Use a Powerful Pre-Workout Creatine/Nitric Oxide Supplement

This actually goes far beyond creatine. It involves three of the biggest breakthroughs in sports nutrition! Now, because you don't want to go wading through libraries full of boring, scientific journals, here's a simple updated overview on creatine supplements and the scientifically proven ways creatine can dramatically help your training efforts:



Shortly after the discovery of the creatine monohydrate (the best and only proven form of creatine), researchers found that combining it with a simple sugar increased its uptake by the muscle cell. The problem is, sugar-loaded creatine poses a threat to any bodybuilder or athlete looking to get lean. The negative effects far outweigh the slight improvement in creatine utilization by your body.

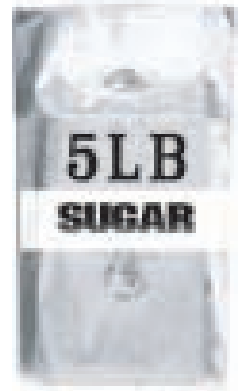
Athletes using sugar-loaded creatine during the loading phases are adding in excess of 150 grams of pure sugar to their diets per day! That's equivalent to 600 daily calories coming from sugar alone—the amount of sugar found in 4 cans of soda!

A few large supplement companies are still doing phenomenal sales with their sugar-loaded creatine products thanks to mega bucks they spend on marketing hype. Don't be fooled though, they're using outdated science and their products are costing you extra body fat.

There's a better way to make creatine delivery more effective...WITHOUT overloading the body with sugar! It's called TRAC®, and it's responsible for three of the biggest breakthroughs in sports nutrition...

EFFECTS OF CREATINE SUPPLEMENTATION	RESULTS IN MUSCLE PERFORMANCE
<ul style="list-style-type: none"> ▶ Increases muscle content of creatine ▶ Increases muscle content of phosphocreatine ▶ Increases lean body mass ▶ Increases muscle size 	<ul style="list-style-type: none"> ▶ Increased peak muscle power output ▶ Increased one repetition maximum ▶ Increased vertical jump ▶ Increased strength and power ▶ Speeds short duration sprinting

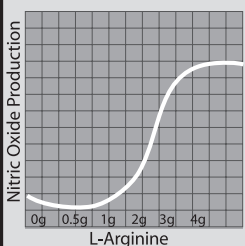
A 7 lb Tub of Most Sugar Transport Creatines Contains Over 5 lbs of FATTENING SUGAR!



Breakthrough #1
Nitric Oxide

Nitric Oxide increases blood flow and nutrient transport to muscle tissue, triggers new muscle growth and delivers some of the most incredible muscle pumps you have ever felt in your life! And just so no one is mistaken, TRAC was the first product to introduce the use of L-arginine for its benefits associated with improved Nitric Oxide production, even though others have recently taken credit. If you want to read more about the Nitric Oxide controversy, you'll have to get the complete unabridged version of the Macrobiotic Nutrition book.

DOSE RESPONSE CURVE FOR ORAL L-ARGININE



The arginine drives insulin and leg blood flow causing an increase in muscle perfusion and transport of creatine to muscle. A large enough dose of arginine is necessary to push nitric oxide production enough to mediate insulin and increase blood flow.

Research shows ADNO (Arginine Derived Nitric Oxide) to have powerful insulin mediating effects. TRAC contains 4 grams of Arginine to increase the production of Nitric Oxide (NO) and stimulate insulin output and sensitivity WITHOUT FATTENING SUGAR. This new patent pending approach to mediate insulin is called "Nitro-Loading" and it drives much-needed nutrients to your muscles for increased size, strength and improved recovery.

SAY "NO" TO AAKG

*All of the research linking nitric oxide to increased blood flow has been done with L-Arginine. So if you're looking to boost nitric oxide, be sure to use a product which has pure L-Arginine, NOT AAKG.

Breakthrough #2

Combining Creatine + Nitric Oxide for Powerful Anabolic Effects

In addition to benefits of its own, L-arginine helps to boost the effectiveness of creatine. While creatine helps promote muscle cell volume, size and strength, Nitric Oxide has a major influence on muscle physiology by increasing vasodilation (blood flow) and nutrient update. This helps improve creatine transport, increase protein synthesis, amplify muscle power output, improve recovery and most amazingly, stimulate new muscle fiber production.

Breakthrough #3

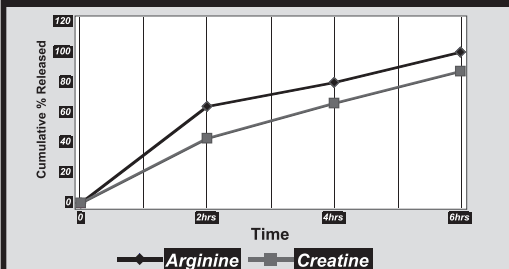
Patented Time Release Technology

MHP's proprietary TRT™ micro-encapsulation process provides a continuous supply of this powerful anabolic Creatine/Nitric Oxide combo to stimulate muscle growth and keep you feeling big and pumped...ALL DAY LONG!

TRAC contains other synergistic ingredients, including a favorite new sports ingredient referred to as NADH. NADH (coenzyme nicotinamide adenine dinucleotide) is present in every living cell and is a vital biochemical required for production of cellular energy. Some research has shown that supplemental intake of NADH can improve mental function, and research on athletes indicates that NADH supplementation enhances work capacity. Combining NADH with creatine makes TRAC an "ATP Power Plant" for explosive strength.

Take a serving of TRAC 30 to 45 minutes before workouts on training days. Also, take one serving on non-training days around the same time to maintain muscle creatine saturation.

SUSTAINED RELEASE PROFILE



TRAC employs a unique proprietary micro-encapsulation process to produce a unique release profile for its main components. The release of arginine and creatine are sustained release, but the L-arginine release precedes the creatine release. As can be seen by the graph, the L-arginine release is about 64% at the 2-hour time point where as the creatine release is 43%. At the 4-hour time point, the L-arginine release is about 80% while the creatine release is around 66%. By six hours, the L-arginine release is basically complete, but the creatine is still releasing and is about 82%. The arginine release is always ahead of the creatine to provide for the bioactive shuttle, stimulating IGF-1 production and facilitating the sodium potassium channel to increase creatine production transport and preservation.

ARNOLD ONCE SAID:
"A PUMP IS AS SATISFYING AS HAVING SEX."*



COMING
SOON!

NEW SECRET
INGREDIENT!

EXPERIENCE YOUR GREATEST PUMP EVER!

SOON, MHP WILL REVEAL
THE NEW SECRET INGREDIENT THAT WILL MAKE ALL OTHER
NITRIC OXIDE PRODUCTS "DUST COLLECTORS".

Be One Of The First To Find Out The Secret Ingredient In TRAC Extreme.
Log On to www.TRACextreme.com

COMING SOON...

TRAC EXTREME-NO

When MHP introduced TRAC in 1999 and its 3 revolutionary breakthroughs to sports nutrition, it immediately became recognized as the most advanced muscle enhancing, pump inducing product ever. Even though other imitators and copycat products have since hit the marketplace, bodybuilders and industry experts still rank TRAC superior to these copycat formulas. To further distance TRAC from the pack of imitators, MHP is about to introduce a new secret ingredient to the supplement marketplace—an ingredient that no other company will be able to duplicate.

Breakthrough #4

Secret Ingredient "X" – The Nitric Oxide Igniter

Soon, MHP will introduce to bodybuilding the most powerful Nitric Oxide potentiator the world has ever known, in TRAC Extreme-NO. In fact, it is so powerful that it is considered to be a drug, even at low doses. The muscle pumping effects of Secret Ingredient "X" are unlike anything you have ever experienced before and will increase blood flow beyond physiological normality. Words cannot even begin to describe the insane pumps and workouts you will experience with TRAC Extreme-NO and this Secret Ingredient "X".

IMITATORS-COPYCATS-NOT THIS TIME!

Yes, it is flattering that so many companies have tried to imitate the original Nitric Oxide/Creatine formula, TRAC. And even though TRAC was imitated but never even close to duplicated, this time MHP is making sure there is no chance of imitation. MHP has licensed the exclusivity to Secret Ingredient "X" from one of the world's biggest pharmaceutical drug manufacturers.. This exclusivity will ensure that all other Nitric Oxide products become "dust collectors". And to all of the imitators, we say "Eat Our Dust!"

Method #3: Take a Buffered Bio-Available Glutamine Supplement

In researching Glutamine's many wondrous properties, it's interesting that even the military has turned its attention to glutamine supplements as a way to improve military personnel performance. Talk about high-tech!

Numerous research studies indicate that taking extra glutamine supplements can provide you with benefits above and beyond any nutrition program alone, especially if you're training INTENSELY. Supplemental use of L-glutamine by athletes is known to have strong anti-catabolic effects that neutralize the highly catabolic cortisol that accompanies strenuous exercise. Glutamine's anti-catabolic action allows anabolism (muscle building) to take place more efficiently. L-Glutamine additionally plays an active role in the recovery and healing process.

First generation glutamine sports nutrition products contained free form L-Glutamine, which research studies report—works well. But after reviewing the scientific research, it became apparent that glutamine's effects can be potentiated by increasing its bioavailability and absorption.

EFFERVESCENT GLUTAMINE

Get The Most From This Important Amino Acid

MHP's Effervescent Glutamine uses an advanced buffered delivery to take advantage of the acid neutralizing power of the bicarbonate ion (HCO_3^-). This technology allows more L-Glutamine to pass into the intestinal environment where it can be absorbed and utilized by intestinal cells, ultimately leading to more glutamine absorption by muscle cells. It's also interesting to note that bicarbonate on its own has been clinically proven to help increase strength and power athletic performance, making it a truly synergistic ingredient to team with L-Glutamine.



Studies show that the utilization of a pharmaceutical grade bicarbonate delivery system (as used by MHP in Effervescent Glutamine) has been shown to improve glutamine uptake by almost 400%.

Take two servings of Effervescent Glutamine per day for optimum glutamine levels, anti-catabolic purposes and GH production. Take one serving in the morning between your first and second meal, and one serving immediately following workouts, or in the early evening on non-training days.

Method #4: Optimize Your Testosterone Levels



Increasing testosterone levels and optimizing the anabolic effects of testosterone have always been primary goals of bodybuilders and strength athletes. It's in this regard that MHP has focused its research efforts in developing natural products that will optimize the body's testosterone production and utilization.

MHP's research team is led by Dr. Vincent Giampapa, one of the most knowledgeable hormone replacement physicians in the world. It's no wonder MHP is the leader in natural hormone manipulation.



T-BOMB II®

Patent Pending Pro-Testosterone Technology Revamps Your Entire Hormonal Profile!

T-BOMB II goes beyond testosterone into a new era of hormone manipulation called Pro-Testosterone Technology. T-BOMB II will jack up your testosterone by more than 400%, but it doesn't stop there. Recent research has discovered that other hormonal factors must be regulated in order to achieve the maximum anabolic and androgenic effects of testosterone to trigger muscle growth. T-BOMB II is the only testosterone formula available that optimizes your hormonal profile and achieves homeostasis (hormonal balance), allowing you to maintain high testosterone while keeping "Growth Killers" like HPTA negative feedback, estrogen and SHBG in check! Remarkably, by achieving homeostasis you can stay on T-BOMB II and keep growing—NO CYCLING REQUIRED!

Increases Your Natural Production of Testosterone by 400%

Clinical doses of the most proven testosterone-boosting compounds force your pituitary into overdrive! T-BOMB II stimulates your pituitary to produce leutinizing hormone and triggers the release of testosterone, giving you explosive strength and head-turning gains in rock-hard muscle mass! T-BOMB II's incredible testosterone boosting effects blow away any other testosterone formula on the market!

Cripples SHBG and Increases "Free Testosterone"

Elevated testosterone is only beneficial if it is circulating in the blood as "Free Testosterone". Sex Hormone-Binding Globulin (SHBG) is a protein that binds to testosterone, rendering it useless. T-BOMB II doesn't just lower SHBG, it annihilates it! T-BOMB II frees up even more testosterone for even greater gains in mass and strength. Increased sex drive is another positive "side effect" you can look forward to experiencing.

Stops Testosterone to Estrogen Conversion

Unfortunately, not all testosterone remains as testosterone once it's produced. The "aromatase" enzyme in the body converts some of your testosterone into the female hormone estrogen, which is responsible for many negative side effects, including the accumulation of body fat, water retention, "bitch tits" and poor sexual performance. Anti-Aromatase inhibitors found in T-BOMB II eliminate the conversion of testosterone to estrogen—a main concern for bodybuilders and a tremendous triumph for MHP R&D formulators.

Blocks Estrogen Receptors

Stage 2 of T-BOMB II's "estrogen assault" uses estrogen-blocking compounds to clog the receptors, assuring that estrogen does not attach to the receptor and exert any of its estrogenic effects. With T-BOMB II's two-stage assault, testosterone, and only testosterone, dominates your hormonal composition.

Lowers the Conversion of Testosterone to DHT

Testosterone can also convert into a hormone known as DHT, which is responsible for the negative side effects such as baldness and acne. T-BOMB II provides your body with the critical nutrients to minimize and block this conversion. Additionally, minimizing DHT, which normally competes with Testosterone for the androgen receptor, leaves even more receptors open for Testosterone to latch onto.

EXCLUSIVE Second Messenger Technology: The Testosterone Amplifier!

It's the latest breakthrough in hormonal manipulation and it has the entire bodybuilding world buzzing! This is how it works: When testosterone arrives and docks at the muscle cell receptor site, it must interact with "2nd Messengers". The "2nd Messengers" communicate to the muscle cell nucleus that testosterone has arrived and to carry out its anabolic effects. The more efficient your 2nd Messengers are working, the louder the signal they send. Referred to as signal transduction, this amplified signal increases testosterone's anabolic effects to stimulate muscle growth. Simply stated, if your 2nd Messengers are operating optimally, the muscle building effects of testosterone are increased ten-fold!

**As with any testosterone formula, T-BOMB II is recommended for males over the age of 18. It IS NOT recommended for women or minors.*

Method #5: Up Your IGF-1 and HGH Levels

While looking at the medical research reports on lean body mass enhancing substances, human growth hormone (HGH) caught and DEMANDED MHP's attention. Since pioneering research in 1990 by Dr. Daniel Rudman, M.D., hundreds of studies have been undertaken to explore the benefits of using synthetic HGH and natural HGH stimulators.



SECRETAGOGUE-ONE®

*The #1 rated GH Releaser!**

Secretagogue-One literally triggers your pituitary to pump out more Growth Hormone. Elevated GH levels create a muscle building and fat burning environment like nothing you've ever experienced before. Ask any competitive bodybuilder and they will tell you that Growth Hormone is the best way to get BIG and RIPPED fast! The best way to do it naturally is with Secretagogue-One!

MHP's Secretagogue-One is a revolutionary Growth Hormone releasing peptide formula, which has been used extensively in many of the world's top Hormonal Compounding Centers. Formulated by Dr. Vincent Giampapa, this breakthrough nutraceutical induces pituitary hyperplasia, thereby greatly increasing the production of GH (Somatotroph Hyperplasia). Never before has a natural compound been so effective in raising GH levels. In fact, Secretagogue-One is so effective that many professional and top amateur bodybuilders are claiming it is unlike anything they have ever taken before.

On its own, your pituitary secretes its largest pulse of GH during your first four hours of sleep. Secretagogue-One will stimulate your pituitary to release even more GH during this time as well. For this reason, Dr. Giampapa determined that taking one serving before bedtime on an empty stomach is the best way for bodybuilders and athletes to further increase their HGH and IGF-1 levels.

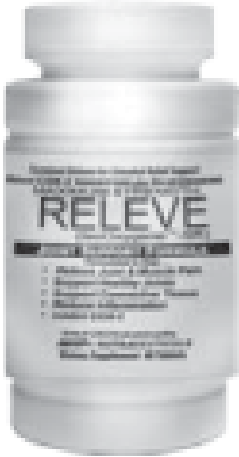
**Based on sales reports from major retail outlets.*

AUTHORS, RESEARCHERS AND SCIENTISTS IN THE BODYBUILDING AND STRENGTH COMMUNITIES HAVE NOTED THE FOLLOWING BENEFITS HGH HAS ON YOUR BODY:

- ▶ Reduced body fat
- ▶ Increased muscle mass
- ▶ Higher energy levels
- ▶ Enhanced sexual performance
- ▶ Improved recovery
- ▶ Strong joints and ligaments

Method#6: Relieve Joint and Muscle Pain

No pain, no gain? Think again. Truth is, you can't train your hardest if you're in pain. And as an iron-pumping athlete, you may have tried all kinds of joint remedies, both prescription and non-prescription. Though you may have derived some benefit from them, do they really address the MAJOR pain and inflammation you experience as a result of heavy training?



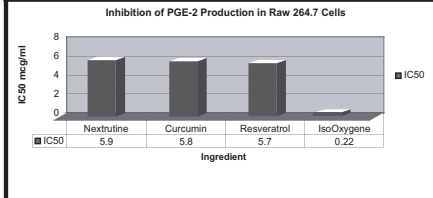
RELEVE™

In the search for the ideal natural anti-inflammatory product, MHP's R&D staff reviewed research and tried a variety of scientifically sound botanicals traditionally used for relieving pain and inflammation.

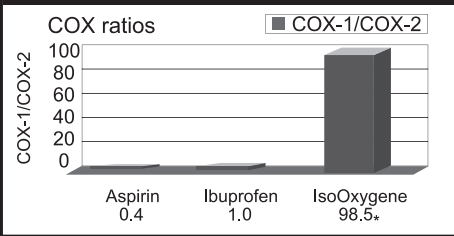
They came across a new, patented natural extract with some very impressive data. It is called IsoOxygene™, and the R&D team quickly secured the exclusive rights to use it. They enhanced it with Baikal Skullcap, N-Acetylcysteine, and Alpha Lipoic Acid (a synergistic combination of ingredients that work together to provide fast-acting relief and anti-inflammatory action).

Now that pain relief and anti-inflammatory action were covered, only one more ingredient was needed to complete the revolutionary joint product—Glucosamine. Glucosamine is the single most effective substance for the synthesis of connective tissue. It provides the nutrients needed to help rebuild and repair joints, and it was the perfect addition to an already great formula.

It's 20 TIMES MORE POWERFUL Than Any Other Natural Ingredient! and it's ONLY Found in RELEVE!



IsoOxygene Outperforms Ibuprofen and Aspirin For Reducing Pain and Inflammation.



COX-2 inhibition as measured by inhibition of PGE-2, a pro-inflammatory prostaglandin, in RAW 264.7 cells. The IC50 is the amount of the ingredient needed to reduce PGE-2 by 50%. Nextrutine™ is from Next Pharmaceuticals. Curcumin is a commonly used botanical anti-inflammatory ingredient with COX-2 to COX-1 ratios of 2:1. Resveratrol is a phytoalexin found in grapes and other botanicals. IsoOxygene™ is the proprietary new COX-2 specific inhibitor with a COX-2 to COX-1 ratio of 98.5:1.*

GETTING LEANER FASTER

**When reading this and other sections of this book regarding losing body fat, note that losing too much weight too fast is not the healthy way, nor the Macrobiotic Nutrition way. A few pounds of fat loss per week is the only safe way to ensure that you are losing body fat and not lean muscle or just water weight.*

With all the key fat loss compounds available on the market, there could be an entire book on this topic alone. Here are just a few of the key natural compounds you could be using right now to get shredded like never before!

Method #1: Further Regulate Your Insulin Levels

In chapter two, we discussed the importance of regulating insulin levels so that you're efficiently transporting nutrients to your muscle cells, but you're not over-producing it (an effect that can lead to fat storage). MHP scientists have found that in addition to following a Macrobiotic Nutrition diet, you can further regulate insulin production by using specific key dietary supplements.

These ingredients are also referred to as "insulin mimickers" because they work much like insulin to lower blood sugar. Yet, they don't promote fat storage like high levels of insulin, and they actually help decrease body fat.

Chromium aids in weight loss and enhances insulin sensitivity by supporting GTF (glucose tolerance factor). Yes, you may have heard of it before as "chromium picolinate". But the polynicotinate and dinicotinate glycinate

forms of chromium are the preferred sources of the chromium family. Why? Because they are 500% to 600% more absorbable than their picolinate counterpart. Each form is effective, but since the polynicotinate and dinitrate glycinate are better absorbed, you'll get equal results at much lower doses.

D-pinitol is extracted from soy and sugar pine heartwood. D-pinitol has insulin mimicking properties and has been shown to decrease sugar levels and free fatty acid levels in the blood. It also has been shown to decrease stored body fat.

Gymnema Sylvestre directly stimulates the pancreas to secrete insulin. Bad, you say? Not at all. You see, it also significantly reduces the metabolic effects of sugar by preventing the intestines from completely absorbing sugar molecules during the digestion process. Preventing sugar absorption is good, because it will keep blood sugar levels down and insulin levels in check.

Corosolic Acid is a favorite botanical ingredient to help with insulin-like function. It's derived from the Banaba leaf and it helps improve the transport and utilization of the ingested nutrients into your cells. Scientists who've conducted clinical research on it have found it helps promote improvements in lean body mass.

It's believed that corosolic acid has a pseudo-insulin effect. It works independently of insulin to help stimulate the cells in your body, including muscle cells, to actively absorb nutrients like amino acids, essential fatty acids and glucose. MHP's R&D was so impressed with the research on corosolic acid, that they added it to the MacroBolic-MRP and Up Your MASS supplements to further improve glycogen stores and stabilize blood sugar levels.

Each of these ingredients will help you to better regulate insulin. The reason MHP's R&D prefers corosolic acid is because it increases the uptake of glucose specifically in muscle tissue, which not only lowers sugar in the blood, but has the added benefit of improving muscle performance.

Method #2: Metabolize Even More Fat

These next few ingredients help do the dirty work of transporting and metabolizing fats throughout your body.

L-Carnitine helps transport long chain fatty acids across the mitochondrial membrane where they're broken down and used for energy. Taken in high doses (two to three grams daily), L-Carnitine can be an effective fat loss agent.

Conjugated Linoleic Acid (CLA) has been shown in many clinical studies to produce very significant weight loss in humans. What's unique and great about CLA, is that it seems to mobilize stored body fat while preventing new fat from being stored.

Method 3#: Use a Thermogenic Weight Loss Aid

TAKEOFF

After much time, research, and experimentation, MHP has put together the best high energy fat burner on the market. It's called "TakeOFF" to demonstrate the potency of the energy it will give you and its ability to...well...take off body fat. The main component of this formula is a hefty 18 mg dose of synephrine from Bitter Orange (*Citrus aurantium*). It stimulates the use of fats for energy and increases caloric burning rate. But, unlike ephedrine, it doesn't have the potent central nervous system and heart stimulating effects. Simply put, synephrine works in the brain and in the body to increase the use of fatty acids for energy.

Green Tea, guarana and a triple ginseng blend were added to mimic the energy and fat burning effects that users got from the original ECA (ephedra, caffeine, aspirin) stack. Ginkgo Biloba and L-tyrosine were also added—two very heavily studied nutrients that improve mental focus and concentration. They also proved



to be the perfect final touch on a dynamic weight loss energy formula!

TakeOFF will get you energized and focused for your workouts and helps increase the fat burning effects of exercise. Take two in the morning and two before your workout.

IMPROVING OVERALL PERFORMANCE AND HEALTH

In addition to these performance-enhancing supplements, a well-formulated multi-vitamin/mineral product is also recommended. When ultimately picking your multi, be sure to choose a high quality brand with a trusted reputation. Otherwise, you may not be getting what the label says.

It is also recommended that you take 2000 to 3000 extra milligrams of Vitamin C and a good antioxidant supplement to combat the free radicals produced in response to your intense training program. It's a potent, well-balanced formula with good quantities of powerful antioxidants, including Glutathione, CoEnzyme Q-10, Alpha Lipoic Acid and N-Acetyl Cysteine.

Achieving Maximum Human Performance

As stated earlier, Macrobiotic Nutrition will provide the core to your nutritional needs. And the supplements I've just recommended to you will help your performance even more!

MHP supplements are backed by science from leading experts and universities. They're also proven by top bodybuilders and strength athletes from around the world. It's our passion and commitment to these products that makes us so confident in recommending them to you...and more importantly...**GUARANTEEING RESULTS WITH THEM!**

There is nothing more rewarding than to receive the thousands of calls and e-mails from athletes telling us about the gains and progress they have made from using our products and programs. Helping others achieve Maximum Human Performance has been and will remain our commitment to all athletes and fitness enthusiasts.

VIII. How Many Calories Do You Need?

While Macrobiotic Nutrition's caloric distribution of 45/35/20 is the ideal ratio for muscle growth, power and performance, the total caloric intake must be adjusted for each individual and their goals. Keep in mind that as Macrobiotic Nutrition increases muscle mass and your metabolic efficiency, your caloric needs will increase. Therefore, more calories will be needed to support this new muscle and your caloric needs will continually increase.

So, the question remains. How many daily calories should you be consuming to reach your goal? Pinpointing any individual's exact daily caloric needs is very difficult and many factors must be considered. Not only do these factors change from person to person, but some of these factors can vary in the same person from day to day! We've found that your BMR, lifestyle and exercise routine are the three biggest determinants used in calculating your daily caloric needs.

Go to www.macrobioticnutrition.com for all of your Macrobiotic Nutrition needs

The in depth answer to the caloric question is covered in detail in the full 230-page Macrobiotic Nutrition book. However, because I want to make it as easy as ever for you to get this critical number, I have created an instantaneous online Macrobiotic Nutrition calculator that you can use to figure this out. All you have to do to get your ideal daily Macrobiotic Nutrition calorie requirement, is go to www.macrobioticnutrition.com, click on the Macrobiotic Nutrition Calculator button, answer a few questions and the calculator will actually determine for you the precise number of calories for you. It will even tell you how many grams of carbs, proteins and fats you should be consuming per day! No guesswork, just let the calculator figure it out for you. This technologically advanced diet calculator is being offered to you absolutely free from MHP.

In addition to that, the www.macrobioticnutrition.com website has sample recipes and great offers and information on MHP supplement stacks that you can use to achieve your Macrobiotic Nutrition goals even faster!

SAMPLE DAILY CALORIE/MACRO-NUTRIENT NEEDS

Weight: <u>200LB</u>	Activity Level: <u>Moderate</u>	Goal: <u>Lose Body Fat And Gain Muscle</u>	
DAYTIME CALORIC NEEDS			
Non-Workout Days	Daily Totals	Workout Days	Daily Totals
45% Carbohydrates	<u>231</u> grams	45% Carbohydrates	<u>298</u> grams
35% Protein	<u>179</u> grams	35% Protein	<u>232</u> grams
20% Fats	<u>46</u> grams	20% Fats	<u>59</u> grams
NIGHTTIME CALORIC NEEDS			
Non-Workout Days	Daily Totals	Workout Days	Daily Totals
Carbohydrates	<u>13</u> grams	Carbohydrates	<u>13</u> grams
Protein	<u>50</u> grams	Protein	<u>50</u> grams
Fats	<u>10</u> grams	Fats	<u>10</u> grams

TOTAL DAILY CALORIC NEEDS

Non-Workout Days	Daily Totals	Workout Days	Daily Totals
Carbohydrates	244	Carbohydrates	311
Protein	229	Protein	282
Fats	56	Fats	69
Total Calories	2400	Total Calories	3000

Go to macrobiolcnutrition.com to get your personalized exact daily caloric needs and fill in your totals below

YOUR DAILY CALORIC/MACROBOLIC NUTRITION NEEDS

Weight:	Activity Level:	Goal:	
DAYTIME CALORIC NEEDS			
Non-Workout Days	Daily Totals	Workout Days	Daily Totals
45% Carbohydrates	_____ grams	45% Carbohydrates	_____ grams
35% Protein	_____ grams	35% Protein	_____ grams
20% Fats	_____ grams	20% Fats	_____ grams
NIGHTTIME CALORIC NEEDS			
Non-Workout Days	Daily Totals	Workout Days	Daily Totals
Carbohydrates	_____ grams	Carbohydrates	_____ grams
Protein	_____ grams	Protein	_____ grams
Fats	_____ grams	Fats	_____ grams
TOTAL DAILY CALORIC NEEDS			
Non-Workout Days	Daily Totals	Workout Days	Daily Totals
Carbohydrates	_____ grams	Carbohydrates	_____ grams
Protein	_____ grams	Protein	_____ grams
Fats	_____ grams	Fats	_____ grams
Total Calories	_____ calories	Total Calories	_____ calories

Note:

Your meals during the day should provide the Macrobiotic Nutrition 45/35/20 ratio of macro-nutrients. Your last meal before bed should be high in protein, moderate fat and low carbohydrate. This regimen will optimize metabolic functions and hormonal regulation.

IX. Sample Macrobiotic Nutrition Daily Diets

Sample Meal Plan 200lb Person
Goal: Lose Fat and Gain Muscle
Non-Workout Day: 2400 Total Calories

Food	Serving Size	Calories	Carb	Prot	Fat
7:30 AM					
Meal 1 Macrobiotic-MRP	1 Packet	350	39	32	7
10:30 AM					
Meal 2 Turkey Pita					
pita bread, whole wheat	large (6-1/2")	181	35	6	2
turkey breast	6 slices	169	4	30	4
low fat mayonnaise	1tsp	50	1	0	5
apple	1 small	60	15	0	0
	Totals	460	55	36	11
1:30 PM					
Meal 3 Beef Mass Burger					
lean ground beef	4 oz	156	0	24	6
hamburger roll, whole wheat	1 roll	266	51	9	2
cheddar cheese, low fat	1/8 cup shredded	25	0	3	1
red tomatoes, ripe	2 medium slices	7	2	0	0
looseleaf lettuce, raw	1 leaf	2	0	0	0
	Totals	456	53	36	9
4:30 PM					
Meal 4 Macrobiotic-MRP	1 Packet	350	39	32	7
7:30 PM					
Meal 5 Chicken, Rice and Vegetables					
chicken breast	5oz	147	0	33	2
brown rice, long grain	1/2C	107	22	3	1
olive oil	1tsp	40	0	0	5
mixed vegetables	1cup	74	12	3	2
rye bread, toasted	1 regular slice	67	13	2	1
	Totals	435	47	41	11
10:30 PM					
Meal 6 Probolic-SR Protein (2 1/2 scoops)		350	13	50	10
Daily Totals		2400	246 g	227 g	55 g

* Please note: Total daily Macrobiotic Nutrition ratios are skewed higher in protein due to the high protein content of the last daily meal.

Sample Meal Plan 200lb Person
Goal: Lose Fat and Gain Muscle
Workout Day: 3000 Calories

	Food	Serving Size	Calories	Carb	Prot	Fat
7:30 AM						
Meal 1 Egg Omelet and Oatmeal						
	egg whites	5 large	83	2	17	0
	whole egg	1 large	74	0	7	5
	sweet green pepper, raw	1/4 cup chopped	10	2	0	0
	sweet red pepper, raw	1/4 cup chopped	10	2	0	0
	onion, raw	2 tsp chopped	8	2	0	0
	cheddar cheese, low fat	1 oz shredded	49	1	7	2
	oatmeal, instant	1-1/2 cup cooked	221	38	9	3
	Skim Plus milk	1 cup	101	14	10	1
	Totals		556	61	50	11
10:30 AM						
	Meal 2 Macrobiotic-MRP	1 Packet	350	39	32	7
1:30 PM						
Meal 3 Tuna Sandwich						
	white tuna, canned in water	1 can (172g)	220	0	41	5
	carrots	1/2 cup chopped	28	6	1	0
	cucumber	1/2 cup slices	7	1	0	0
	flaxseed	1 tsp	19	1	1	1
	celery	1/2 cup sliced	10	2	0	0
	onions	1/2 cup chopped	30	7	1	0
	lemon juice	2 Tbs	6	2	0	0
	looseleaf lettuce	1 cup shredded	10	2	1	0
	fat free mayo	3 Tbs	34	6	0	1
	pumpernickel	2 slices	160	30	6	2
	Totals		524	57	51	9
4:30 PM						
	Meal 4 Macrobiotic MRP	1 Packet	350	39	32	7
7:30 PM						
Meal 5 Beef Mass Burger						
	lean ground beef (2 burgers)	8 oz	312	0	48	12
	hamburger rolls, whole wheat	2 rolls	532	102	18	4
	cheddar cheese, low fat	1/4 cup shredded	50	0	6	2
	red tomatoes, ripe	4 medium slices	14	4	0	0
	looseleaf lettuce	2 leaves	4	0	0	0
	Totals		912	106	72	18
10:30 PM						
	Meal 6 Probiotic-SR Protein	(2 1/2 scoops)	350	13	50	10
Daily Totals			3042	315 g	287 g	62 g

* Please note: Total daily Macrobiotic Nutrition ratios are skewed higher in protein due to the high protein content of the last daily meal.

X. Macrobiotic Recipes

MACROBOLIC MEALS!

Here are some Macrobiotic Recipes to help you achieve a shredded, rock hard body!

- Breakfast -

Macrobiotic Pancakes

YIELD: 16 PANCAKES

Food Item	Quantity	E(kcal)	Carbs (g)	Protein (g)	Fat (g)	Fiber (g)
Whole wheat flour	1 cup	407	87.08	16.44	2.24	14.60
Macrobiotic-MRP, vanilla	1 packet	350	39.00	32.00	7.00	8.00
Wheat germ	1/3 cup	1	0.17	0.08	0.03	5.00
Baking soda	1/4 tsp	0	0	0	0	0
Skim Plus milk	2-1/2 cup	252	34.20	24.35	1.54	0
Whole eggs	4 large	294	1.54	25.16	19.88	0
Egg whites	8 large	137	1.93	28.78	0.45	0
Grand Total		1441	163.92	126.81	31.14	27.60

Note: makes 16 pancakes

Per Pancake	90.06	10.25	7.93	1.95	1.73
6 pancakes (suggested serv. size)	540.36	61.50	47.58	11.7	10.38

RATIOS

45%

35%

20%

- 1 Mix the whole wheat flour, Macrobiotic-MRP, wheat germ and baking soda together in a bowl.
- 2 Mix the whole eggs and egg whites together in a separate bowl.
- 3 Add the Skim Plus milk to the dry mixture and place in a blender. Set the blender on low and blend for 3 minutes.
- 4 Add the egg mixture to the blender mixture and blend for 2 minutes.
- 5 Add the safflower oil and increase the blender speed. Add water until the batter reaches the desired thickness, approximately 2 minutes.
- 6 Lightly coat the pan with nonstick cooking spray and heat.
- 7 Pour some of the mixture into the heated pan and allow to cook until a corner of the pancake lifts easily. Flip the pancake and cook the other side. Repeat with the remaining mixture.

Omelet with Oatmeal

YIELD: 1 SERVING

Food Item	Quantity	E(kcal)	Carbs (g)	Protein (g)	Fat (g)	Fiber (g)
Egg whites	5 large	83	1.70	17.36	0	0
Whole egg	1 large	74	0.38	6.29	4.97	0
Sweet green pepper, raw	1/4 cup chopped	10	2.40	0.33	0.07	0.7
Sweet red pepper, raw	1/4 cup chopped	10	2.40	0.33	0.07	0.7
Onion, raw	2 tsp chopped	8	1.73	0.23	0.03	0
Cheddar cheese, low fat	1 oz shredded	49	0.54	6.90	1.98	0
Oatmeal, instant	1-1/2 cup cooked	221	37.91	9.13	3.51	6.0
Skim Plus milk	1 cup	101	13.68	9.74	0.62	0
Grand Total		556	60.74	50.31	11.25	7.4

RATIOS

44%

37%

19%

- 1 Preheat an 8x12 inch skillet over medium heat.
- 2 Place eggs in a bowl and beat with a fork until blended.
- 3 Mix half of the onions into the eggs.
- 4 Spray preheated pan with nonstick cooking spray and pour in the eggs. Flip eggs when the underside starts to get firm or reaches the desired consistency.
- 5 Place the remaining onions on top of one side of the omelet and fold on half neatly over the other.
- 6 Serve with a side of oatmeal.

- Lunch -

Chicken Parm Pasta Salad

YIELD: 1 SERVING

Food Item	Quantity	E(kcal)	Carbs (g)	Protein (g)	Fat (g)	Fiber (g)
Spaghetti, whole wheat	1 cup	174	37.16	7.46	0.76	6.3
Chicken breast, meat only	2 oz. sliced	94	0.00	17.59	2.02	0
Garlic clove	1/2 tsp minced	1	0.23	0.04	0.00	0
Parsley, dried	1 tsp	1	0.15	0.07	0	0
Mozzerella, melted	2 oz shredded	144	1.58	13.76	9.02	0
Mushrooms, raw	2 large sliced	12	1.88	1.33	0.15	0
Red tomatoes, ripe	2 large (3")	76	6.89	3.09	1.20	4.0
Grand Total		502	57.89	43.34	13.15	10.3

RATIOS

46%

34%

23%

- 1 Grill chicken until it becomes throughly cooked.
- 2 Mix the mozzarella cheese into the cooked spaghetti.

- 3 Mix the sliced vegetables into the spaghetti and add the parsley and garlic.
- 4 Place the roasted chicken breast slices over the spaghetti.
- 5 Serve either hot or chilled.

Beef Mass Burger

YIELD: 2 SERVINGS

Food Item	Quantity	E(Kcal)	Carbs(g)	Protein(g)	Fat(g)	Fiber(g)
Lean ground beef	8 oz. (227 g)	311	0.00	48.60	11.35	0
Onions, raw	1/4, diced	14	3.24	0.43	0.06	0
Cheddar cheese, low fat	1/4 cup shredded	49	0.54	6.88	1.98	0
Mushrooms	1/4 cup chopped	4	0.71	0.51	0.06	0
Hamburger rolls, whole wheat	2 rolls	532	102.20	17.40	4.04	15.08
Looseleaf lettuce, raw	2 leaves	4	0.70	0.26	0.06	0
Red tomatoes, ripe	4 medium slices	14	3.71	0.68	0.26	0
Parsley	1/8 tsp	0	0.00	0.01	0.00	0
Basil, dried	1/8 tsp	0	0.11	0.03	0.01	0
Grand Total		928	111.21	74.80	17.82	15.08

Per Serving	464	55.60	37.40	8.91	7.54
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RATIOS	47%	32%	17%
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- 1 Preheat a skillet or grill to desired heat range (145°F for rare, 160°F for medium, 170°F for well-done).
- 2 Mix the beef or turkey with the cheese and spices in a large bowl. Form into two equal patties.
- 3 Coat skillet or griddle with nonstick cooking spray and cook patties until desired doneness.
- 4 Place on whole wheat roll with lettuce and tomato. Serve.

- Dinner -

Lemon Sole w/ Broccoli

YIELD: 4 SERVINGS

Food Item	Quantity	E(kcal)	Carbs (g)	Protein (g)	Fat (g)	Fiber (g)
Sole filets	1 lb	530.0	0	109.53	6.94	0
Lemon juice	2 tbs	6.0	1.94	0.21	0.90	0
Broccoli spears	10 oz	70.0	13.38	7.75	0.28	7.50
Cheddar cheese, low fat	4 oz shredded	196.0	2.17	27.61	7.94	0
Skim milk	1/4 cup	23.0	3.07	2.19	0.15	0
Lemon peel	1/2 tsp	0	0.1	0.01	0	0
Olive oil	6 tsp	240.0	0	0	27.00	0

Food Item	Quantity	E(kcal)	Carbs (g)	Protein (g)	Fat (g)	Fiber (g)
Spaghetti, whole wheat	6 cups	1044.0	224.04	44.76	4.56	37.80
Dill, Fresh	1/4 tsp	0	0	0	0	0
Grand Total		2109	244.76	192.06	47.77	45.30

Per Serving	527.25	61.19	48.01	11.94	11.32
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RATIOS	45%	35%	20%
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- 1 Fill a large pot three-quarters with water and bring the water to a boil.
- 2 Sprinkle each fillet with juice and pepper. Place the broccoli spears on the narrow end of each fish fillet. Roll up the fillet starting at the end with the broccoli, so the broccoli ends up in the center of the roll. Secure the roll with toothpicks. Place the roll seam side down on a microwaveable dish and cover.
- 3 Microwave on high for 5-7 minutes until the fish flakes easily with a fork.
- 4 Place whole wheat pasta in the boiling water. (Note: individual pasta manufactures may indicate the length of time the pasta should be cooked.)
- 5 Place the remaining ingredients (except the bread and the olive oil) in a microwaveable bowl and mix together until blended. Microwave 2-3 minutes or until the sauce reaches a smooth consistency. (Stir the sauce after each minute to ensure even melting.)
- 6 Drain the water from the pasta when done and immediately mix the olive oil into the pasta.
- 7 Remove fillets and discard the toothpicks. Place on top of pasta (1 cup per fillet) and serve with sauce.

Chicken Teriyaki

YIELD: 4 SERVINGS

Food Item	Quantity	E(kcal)	Carbs (g)	Protein (g)	Fat (g)	Fiber (g)
Chicken breast, meat only	16 oz	499.00	0	104.81	5.63	0
Brown rice, medium grain	2 cups cooked	437.00	91.96	9.05	3.24	7.0
Teriyaki sauce	1-1/4 cup	302.00	57.42	21.53	0	0
Onion, raw	1 large sliced	57	12.59	1.74	0.24	2.70
Sweet green pepper, raw	1 large sliced	44	10.55	1.46	0.31	3.00
Zucchini	1 small sliced	17.00	3.42	1.37	0.17	1.4
Sweet yellow pepper, raw	1 large sliced	50	11.76	1.86	0.39	1.70
Olive oil	2 tsp	239.00	0	0	27.00	0
Soy sauce, low sodium	1-1/4 tsp	14.00	2.30	1.40	0	0
Garlic powder	2 tsp	9.00	2.04	0.47	0.02	0
Black pepper	1 tsp	5.00	1.36	0.23	0.07	0
Grand Total		1673	193.4	143.92	37.07	15.8

Per Serving	418.25	48.35	35.98	9.26	3.95
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RATIOS	45%	35%	20%
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- 1 Cut chicken breast into 4 equal sizes of approximately 4 oz each.
- 2 Grill chicken until the meat becomes thoroughly cooked
- 3 Combine grilled chicken with cooked rice and place into a bowl with the teriyaki sauce.
- 4 Mix the vegetables with the olive oil, soy sauce and garlic powder. Place mixture into the bowl with the chicken and rice. Add the black pepper.
- 5 Divide into four equal servings. Refrigerate the leftover servings in separate containers for the rest of the week.



XI. Macrobiotic Training Guide

Macrobiotic Nutrition is designed to provide the nutrient base needed to increase lean muscle mass while simultaneously reducing body fat when used in conjunction with an effectively designed resistance training program. The Macrobiotic Nutrition 45/35/20 ratio will facilitate and provide the necessary nutrition and ideal hormonal environment conducive to improving body composition and performance. Resistance training, however, is the physical stimulus needed for muscle building and optimal fat burning.

There are two basic forms of exercise: aerobic and anaerobic. By definition, aerobic means “with oxygen” and anaerobic means “without oxygen”. In laymen’s terms, aerobic, which is usually referred to as cardio, includes exercises like the treadmill, stepper and stationary bike performed at an intensity level of 60-90% of your maximum heart rate for an extended amount of time. This range is broad due to genetics and your current fitness level. Anaerobic includes resistance weight training exercises performed for a shorter duration (usually less than 60 seconds), with rest periods between sets to allow your heart rate to lower before performing the next set.

Often, people rely only on cardio to reduce body fat. This is a critical mistake. Weight training can be as effective or even *more* effective than cardio for reducing body fat. Even more importantly, long-term resistance training has been shown to be superior for improving body composition (increasing lean muscle/reducing body fat) for a number of reasons.

First, resistance training keeps your metabolism elevated for much longer than cardio does after a workout. Weight training keeps your metabolism elevated for 24 hours, whereas cardio only keeps your metabolism elevated for a short period of time. Second, muscle is more metabolic than fat. So, increasing lean muscle actually raises your metabolism and caloric expenditure at rest as well as during training. Third, cardio can have a catabolic (muscle wasting) effect at high levels of intensity, therefore reducing lean muscle and its metabolic effects. If your goal is to maximize strength and muscle mass while simultaneously reducing body fat, a properly designed resistance weight training program without cardio is best. For maximum fat loss and conditioning, however, combining aerobic and anaerobic training is best—just be careful not to overdo the cardio. So, whether you incorporate cardio into your program depends on your current physical condition and what your fitness goals are.

ATTACKING THE RIGHT MUSCLE FIBERS TO MAXIMIZE MUSCLE HYPERTROPHY

Skeletal muscle is made up of two primary types of fibers—fast twitch and slow twitch. There are many sub-types of muscle fibers, which are derivatives of these two major types. It is important to acknowledge a few facts regarding fast and slow twitch muscle fibers and their sub-types. First, the percentage of fast twitch to slow twitch and their respective sub-types varies from person to person. Second, the distribution of fast and slow twitch fibers is different in different muscles. For example, your biceps have a different percentage of fast and slow twitch fibers than your quadriceps (front thigh). A properly designed targeted training program will effectively stimulate fast twitch and fast twitch sub-types for maximum muscle hypertrophy (muscle building).

Slow Twitch Muscle Fibers – Endurance

Slow twitch muscle fibers have a higher aerobic capacity, and therefore fatigue slower. Endurance athletes have a higher percentage of slow twitch fibers in their muscle tissue. For the most part, slow twitch muscle fibers are not targeted during resistance training programs designed for muscle strength and growth. Exercise induced muscle

growth is caused by functional overload which leads to muscle hypertrophy. The high endurance capacity of slow twitch muscle fiber does not allow for functional overload by resistance weight training. It's for this reason that slow twitch muscle fibers are primarily used during long duration aerobic activities using sub-maximum force.

Fast Twitch Muscle Fibers – Size and Strength

Fast twitch muscle fibers exert greater force upon contraction, but fatigue more quickly. It stands to reason, therefore, that world-class power athletes have a higher percentage of fast twitch muscle fibers. When it comes to weight training and the stimulation of growth through muscle hypertrophy, you must target the fast twitch muscle fibers and their derivative sub-types. Different resistance levels and rep ranges recruit different muscle fibers within the fast twitch muscle fiber sub-types. For maximum targeting of fast twitch and fast twitch sub-types, you must employ sets of varying repetition ranges from 5 to 25 reps to maximum effort.

IMPROVE YOUR HORMONAL PROFILE WITH EXERCISE

We covered the importance and roles of various hormones to muscle building and fat burning in our Macrobolic Nutrition overview, but exercise can also have a major impact on hormone levels. Regarding exercise, your goal is to design a training program that will maximize the production of the anabolic (muscle building) and lipolytic (fat burning) hormones Testosterone and Growth Hormone, while minimizing the production of the catabolic (muscle wasting) hormone cortisol.

The best way to boost growth hormone and testosterone is by training at a fairly high intensity level—your workout should only take 60 to 90 minutes—max. Training at high intensity levels beyond 90 minutes will cause very high elevations in cortisol. This is something you want to avoid.

You want to follow a training program that employs all fast twitch muscle fibers and therefore maximizes hormonal response. In designing your specific program, you want to address the following variables:

- 1 Work load effort (number of repetitions to maximum effort):** RM Repetition maximum should vary from 5 to 25. Different muscle fibers are recruited at a different percentage of maximum workload. For example, a heavy weight which you can only perform five repetitions to maximum effort (to failure) will recruit the biggest and strongest fibers, a weight which will allow you to do 8 to 10 reps will recruit a different sub-type of fast twitch muscle fibers. Incorporating rep ranges will allow you to target and recruit all fast twitch sub-types leading to maximum hypertrophy. Also, as mentioned previously, each body part has a different distribution of fast, slow and sub-types of muscle fiber. Characteristically, the muscles in the legs and arms have fibers with a slightly higher endurance capacity and respond better to workouts which include high reps.
- 2 Exercise selection:** The basic compound movements such as bench press, shoulder press, squat and row are the most important.
- 3 Execution of exercise (form, eccentric phase and concentric phase):** Proper execution and form is very important if you want to maximize the benefits of the exercise. Also, the eccentric (negative) and concentric (positive) phase both play an important role. The negative portion of exercise has been shown to recruit more fast twitch muscle fibers, but overdoing it can also cause excessive muscle damage. The concentric portion may not recruit as many muscle fibers but it will recruit different fibers than negative only phase training. Incorporating both eccentric and concentric at varying speeds from workout to workout will also allow for the greatest number of muscle fiber recruitment.
- 4 Duration of rest between sets:** A minimum of 60 seconds rest between sets. A longer rest is needed for heavy phase of training cycles. For powerlifting and strength gains, you may want to rest up to three minutes between sets.
- 5 Length of workout:** 60 to 90 minutes

6 Rest between workouts: If you are training at the proper intensity level you should not train for more than two consecutive days in row. Ideally, take a day off between workouts, especially during heavy training phase.

7 Workout cycle (periodization, rotation of body parts): Cycle your program to include a heavy, lower rep phase with 90 to 120 second rest intervals between sets and a higher rep phase with less rest between sets (60 to 90 seconds). This type of training will recruit the largest and strongest muscle fibers.

THE MACROBOLIC MUSCLE BLASTING TRAINING PROGRAM

This 14-day workout program is broken down into 2 cycle phases. For both cycle phases, you should perform exercises using good form and a full range of motion.

Cycle Phase 1 involves the use of heavier weights, less reps and explosive-rhythmic execution using a controlled, explosive movement for the concentric (positive) and then a controlled eccentric (negative). The positive movement should be at a speed of about 1 second, and the negative phase should be at a slightly slower speed of about 1 ½ to 2 seconds.

Cycle Phase 2 involves using explosive-rhythmic movements with some sets focusing on concentric, eccentric or both (see notes on workouts). For the concentric specific sets, use a slower, more deliberate speed to the end of the movement (approximately a two-count), and then squeeze and flex at the end of the movement for another 2 seconds. Begin the negative movement at a speed of 2 seconds and repeat repetition to target rep range to maximum effort as instructed in the program. For the negative specific, start by using a controlled 1 second eccentric, and then for the negative phase of the rep, move at a steady controlled speed of 5 seconds for full execution. Repeat to target rep range as instructed in program.

For both Cycle 1 and Cycle 2, follow the suggested rest intervals between sets.

Cycle Phase 1: 90 to 120 seconds

Cycle Phase 2: 60 to 90 seconds

Workout Key

Code	Type of Movement	How to Perform the Movement
ER	Explosive-Rhythmic	1 Second Up, 1 ½ to 2 Seconds Down
CS	Concentric (positive) Specific	2 Seconds Up, 2 Second Squeeze, 2 Seconds Down
ES	Eccentric (negative) Specific	1 Second Up, 5 Seconds Down

All sets should be performed to maximum effort to the recommended rep range. Always try to reach the high number of the rep range. Once you can exceed the high number of target reps with a given amount of weight, increase the weight for that exercise in your next workout and stay with this weight until you can again exceed the high rep range and then increase weights again.

Warm-Up: Be sure to warm up properly before each workout. Perform 1 or 2 sets of 15 reps at 70% maximum effort for the first exercise for each body part before starting max efforts sets.

Cardio: On your off days, you may do 30 to 40 minutes of moderate cardio at 60% to 70% of your target heart rate. For maximum fat loss, do cardio first thing in the morning on an empty stomach.

To calculate your Target Heart Rate, take 220 minus your age and multiply by 0.6 for 60%, or multiply by 0.7 for 70%.

For A 30 Year Old Athlete: $220 - 30 \times 0.6 = 114 = 60\%$ Of Maximum Target Heart Rate.

Cycle Phase 1

*Perform all exercises using explosive rhythmic form.

*Rest 90 to 120 seconds between sets.

Day 1

Chest

1 Bench Press (Barbell or Dumbbell) 2 Incline Bench Press (Barbell or Dumbbell)

Set	Reps	Movement	Set	Reps	Movement
1	8 to 10	ER	1	8 to 10	ER
2	6 to 8	ER	2	6 to 10	ER
3	5 to 6	ER	3	5 to 6	ER
4	5 to 6	ER	4	5 to 6	ER

Biceps

1 Barbell Curls

Set	Reps	Movement
1	12 to 15	ER
2	10 to 12	ER
3	8 to 10	ER

2 Preachers

Set	Reps	Movement
1	12 to 15	ER
2	10 to 12	ER
3	8 to 10	ER

3 Seated Alternate Dumbbell curls

Set	Reps	Movement
1	6 to 8 each arm	ER
2	6 to 8 each arm	ER

Day 2

Rest or 30 to 40 minutes moderate aerobics

Day 3

Back

1 Seated Rows (Close Grip)

Set	Reps	Movement
1	8-10	ER
2	8-10	ER
3	6-8	ER

2 Bent Over Rows (Barbell)

Set	Reps	Movement
1	8-10	ER
2	6-8	ER
3	4-6	ER

3 Front Lat Pull Downs

Set	Reps	Movement
1	12-15	ER
2	10-12	ER
3	8-10	ER

Traps

1 Dumbbell Shrugs

Set	Reps	Movement
4	10-12	ER

Day 4

Rest or 30 to 40 minutes moderate aerobics

Day 5

Shoulders

1 Dumbbell Presses

Set	Reps	Movement
1	10-12	ER
2	8-10	ER
3	6-8	ER
4	5-6	ER

2 Side Laterals

Set	Reps	Movement
1	12-15	ER
2	10-12	ER
3	8-10	ER

3 Upright Rows

Set	Reps	Movement
1	10-12	ER
2	8-10	ER
3	6-8	ER

Triceps

1 Lying Tricep Extension

Set	Reps	Movement
1	12-15	ER
2	8-10	ER
3	8-10	ER

2 Push Downs

Set	Reps	Movement
1	12-15	ER
2	8-10	ER
3	8-10	ER

Day 6

Rest

Day 7

Legs

1 Squats

Set	Reps	Movement
1	12-15	ER
2	10-12	ER
3	8-10	ER
4	6-8	ER

2 Leg Presses

Set	Reps	Movement
1	20-25	ER
2	15-20	ER
3	10-15	ER

3 Leg Curls

Set	Reps	Movement
1	18-20	ER
2	12-15	ER
3	8-10	ER

4 Extensions

Set	Reps	Movement
1	18-20	ER
2	12-15	ER

Calves

1 Standing Toe Raises

Set	Reps	Movement
1	18-20	ER
2	12-15	ER
3	10-12	ER

2 Seated Toe Raises

Set	Reps	Movement
1	18-20	ER
2	12-15	ER

Cycle Phase 2

* Perform all exercises using explosive rhythmic form, except on sets with specific instructions (see instructions next to rep range).

* Rest 60 to 90 seconds between sets.

Day 8

Chest

1 Bench Press (Dumbbell or Barbell)

Set	Reps	Movement
1	12-15	ER
2	10-12	ER
3	8-10	(5 @ ES, then ER reps)

2 Incline Bench (Dumbbell or Barbell)

Set	Reps	Movement
1	12-15	ER
2	10-12	ER
3	8-10	(5 @ ES, then ER reps)

3 Cable Flyes

Set	Reps	Movement
1	12-15 (concentric)	CS
2	12-15 (concentric)	CS

Biceps

1 Barbell Curls

Set	Reps	Movement
1	12-15	ER
2	12-15	ER
3	10-12	ER

2 Preachers

Set	Reps	Movement
1	8-10	(5 @ ES, then ER reps)
2	8-10	(5 @ ES, then ER reps)
3	12-15	ER

3 Dumbbell Concentration Curls

Set	Reps	Movement
1	8-10	CS
2	8-10	CS

Day 9

Rest or 30-40 minutes cardio

Day 10

Back

1 Seated Rows

Set	Reps	Movement
1	12-15	ER
2	10-12	ER
3	6-8	CS

2 Bent Over Rows

Set	Reps	Movement
1	12-15	ER
2	10-12	ER
3	8-10	ER

2 Front Lat Pull Downs

Set	Reps	Movement
1	12-15	ER
2	10-12	ER
3	8-10	CS

Traps

Dumbbell Shrugs

3 sets, 20 reps [last 5 reps concentric specific (CS)]

Day 11

Rest or 30-40 minutes cardio

Day 12

Shoulders

1 Dumbbell Presses

Set	Reps	Movement
1	12-15	ER
2	10-12	ER
3	8-10	ER

2 Side Lateral Raises

Set	Reps	Movement
1	12-15	ER
2	12-15	ER
3	12-15	ER

3 Upright Rows

Set	Reps	Movement
1	12-15	ER
2	8-10 (5 @ ES, then ER reps)	

Triceps

1 Lying Tricep Extensions

Set	Reps	Movement
1	12-15	ER
2	10-12	ER
3	10-12	ER

2 Pushdowns

Set	Reps	Movement
1	18-20	ER
2	12-15	CS
3	10-12	CS

Day 13

Legs

1 Leg Presses

Set	Reps	Movement
1	23-25	ER
2	18-20	ER
3	12-15	ER
4	10-12 (First 5 reps ES, then ER reps)	

2 Squats

Set	Reps	Movement
1	12-15	ER
2	10-12	ER
3	10-12	ER

3 Extensions

Set	Reps	Movement
1	23-25	ER
2	18-20	CS
3	12-15 (5 @ ES, then ER reps)	

4 Leg Curls

Set	Reps	Movement
1	20-25	ER
2	12-15	CS
3	10 (5 @ ES, then ER reps)	

Calves

1 Standing Toe Raises

Set	Reps	Movement
1	23-25	ER
2	23-25	ER
3	10	CS

2 Seated Toe Raises

Set	Reps	Movement
1	23-25	ER
2	10	CS

Day 14

Rest or 30 to 40 minutes moderate cardio

*Upon completion, repeat Cycles Phase 1 and Phase 2. Continue to follow this program adding weight to stay within the target rep range for each set of each exercise and follow the recommended execution as instruction.

CONCLUSION:

Until now, the specific nutritional needs for bodybuilders and those who engage in resistance training in an effort to build lean muscle have been ignored. Even worse, the fad diets and poor dietary recommendations being given were often counterproductive to your goals.

Incorporating a sound training program is a critical component of the muscle building process. The entire basis of a progressive resistance weight training program is to allow sufficient time between workouts for your body to repair and rebuild the trained muscle. Optimal repair and growth can only occur if the muscle tissue is getting the proper nutrition and the right hormonal environment is in place.

Macrobolic Nutrition takes into account the nutritional needs of those who workout and are looking to increase lean body mass. By properly balancing the 3 macro-nutrients: carbohydrates, proteins and fats, Macrobolic Nutrition provides the ideal hormonal and metabolic response for optimal muscle building, fat burning and performance.

XII. Pro Athlete Testimonials

The Top Athletes in Bodybuilding, Powerlifting, Strongman, Football and Wrestling Share Their Amazing Experiences With Macrobiotic Nutrition—
Proof That Macrobiotic Nutrition is the Program of Choice for All Athletes!



“When I turned pro in 1999, I competed at a bodyweight of only 211 pounds. I knew that in order to compete as a pro, I needed to be much bigger. I went to Venice, California to find out what the secret was on how these guys were getting so damn huge. Believe it or not, I found out all the big guys were following the same basic principles of Macrobiotic Nutrition. Making these simple changes is all it took and now I compete at over 230 pounds. And the only thing I changed was my diet.”

-Mike Morris, IFBB Professional Bodybuilder



“I have seen a tremendous improvement in all areas of my performance since using the Macrobiotic principles. I am bigger, stronger and have much better muscle endurance and energy.”

-Travis Claridge, Offensive Guard - NFL®



“Most bodybuilders make the mistake of restricting carbs from their diet. Carbs are essential for glycogen replenishment and sparing aminos in muscle tissue. Another common mistake bodybuilders make is avoiding soy as a protein supplement. Soy is one of my favorite protein sources because of its high bio-availability. And unlike meat, milk and whey proteins, which are acidic, soy is less acidic and easier on your stomach. When you're taking in large amounts of protein, this is very important. Macrobiotic Nutrition stresses the importance of low glycemic carbs and utilizing a variety of protein sources, which are the backbone of my nutrition program.”

-Gary Strydom, IFBB Professional Bodybuilder



"When I was an Olympic wrestler, putting on a ton of muscle mass wasn't a concern because I needed to stay in my weight class. But once I entered the WWE, I found myself going against 300-pound monsters. So, I needed to pack on serious size, but I didn't want to put on body fat or screw up my endurance and quickness. Macrobiotic Nutrition has allowed me to pack on over 20 lbs of lean body mass. MHP's Up Your MASS shakes and bars are a staple of my diet program."

-Kurt Angle, Olympic and Professional Wrestler



"I started following Macrobiotic Nutrition while competing as an amateur Strongman. Since that day, not only have I packed on 30 lbs. of solid muscle, I've become one of the strongest and most ripped guys on the Strongman circuit. Coincidence? Absolutely not. Get on the program—get on Macrobiotic Nutrition!"

-Jon Andersen, Top Ranked World Strongman Competitor



"Coming back to professional bodybuilding after a 12 year layoff and competing in the 2002 Masters Mr. Olympia was a dream. Thankfully, I had the opportunity to work with Gerard Dente to help structure my nutrition program. In earlier competition days I followed a high protein low-carb diet while preparing for contests. I was usually cut but always lost some quality muscle (size) leading up to the show. During my hiatus, I unhappily got out of shape and gained a lot of body fat. For my comeback, my first instinct to lose the fat was to cut carbs and do hours of cardio. Gerard convinced me, however, that if I consumed the right ratio of good carbs (45%) to proteins (35%) to fats (20%) with my training and supplementation, I could actually eat my way to becoming bigger and harder. Amazingly, using Macrobiotic Nutrition along with my Return to Dominance supplementation program (as seen in Physical magazine), I competed bigger, harder and fuller at the age of 40 than I did in my last pro show at the age of 28!"

-Dave Hawk, IFBB Professional Bodybuilder



"I've been involved in powerlifting, Strongman and strength coaching for over 15 years. And I have never seen a program that compares to Macrobiotic Nutrition for strength training and athletes. An athlete's nutrition requirements are far greater than the average person's, and to optimize lean mass requires even more precise nutrition. Macrobiotic Nutrition really provides the best sources and balance of nutrients for athletes looking to gain size, strength and improve performance."

-Mark Philippi, Former USA Strongman
Champion and Collegiate Strength Coach



“Early in my bodybuilding career, I made the mistake of going on a low-carb diet the last 12 weeks before a show. I always ended up losing a ton of muscle mass and always showed up looking flat, small and smooth. Macrobiotic Nutrition has made all the difference in the world. Now, instead of losing mass pre-contest, I actually grow right into the show. This allows me to hit the stage looking hard, dense and full.”

-Chris “Big Guns” Bennet, Top National NPC Bodybuilder



“As a record holding powerlifter and coach to many aspiring and professional powerlifters, I know the importance of nutrition to fuel big lifts. Macrobiotic Nutrition is all about eating big to increase brute strength and power. Since following Gerard Dente’s results-oriented Macrobiotic Nutrition program, I’ve personally added 285 lbs. to my competition total (squat + bench press + deadlift), going from 2,225 lbs. to 2,510 lbs. The amazing part is, I lost 60 lbs. of body fat while getting stronger. I didn’t think it was possible, but it is!”

-Mike Miller, World Record Squat Total—1200 lbs.



“At 6’ 6” and 325 pounds, I’m one of the biggest Strongman competitors in the world. Most people would say that I’m “genetically gifted”, but I attribute much of my size to eating big. Macrobiotic Nutrition is BIG, STRONG Nutrition—make no mistake about it. Since following the Macrobiotic program, my strength has dominated the American Strongman circuit. The only way to get the most out of your genetic potential is to feed your body Macrobiotic Nutrition.”

-Phil Pfister, Top Ranked World Strongman Competitor



“I’m known by Strongman competitors as an overachiever. I am not the most gifted athlete, so I have to rely on a superior training and nutrition regimen to compensate. My training sessions are so intense that I burn through training partners every few months. Macrobiotic Nutrition fuels my body with the nutrients I need for muscle growth, strength and recovery.”

-Steve Kirit, 2002 and 2003
USA Strongman Champion

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MACROBOLIC NUTRITION

BETTER BALANCED PERFORMANCE NUTRITION



MACROBOLIC

SETTING NEW STANDARDS
IN SPORTS SUPPLEMENTATION