

PART 2
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**Stanley S. Bass:
Super Nutrition and Superior Health**



For those interested in the secrets of drug-free natural healing - here the summary of Natural Hygiene continues - with an especially important piece: DIET & NUTRITION. Here Dr. Bass explains how Natural Hygiene doctors over the last century have struggled to find the best diet for superior health and optimal energy. And how new nutritional research results from the last decades has been especially valuable in this search.

DANGERS OF VEGAN - FRUITARIAN DIETS

OPTIMAL DIET? - 1

PROBLEMS WITH VEGANISM: *In the 1800's and early 1900's many Natural Hygiene doctors believed that raw veganism was the optimal diet. But there was opposition, e.g. Dr. Tilden and Dr. Cursio were not vegans.*

In the 1950's Dr. Cursio, through his work with thousands of patients, especially by following several generations of whole families, soon concluded that veganism was non-optimal and caused deficiency disease. The problems were not easily seen by fasting retreat doctors, who only saw their patients occasionally. Cursio instead continuously followed his patients for years, and was more able to discover problems. Cursio upgraded the Natural Hygiene diet to lacto-ovo vegetarianism, and made other changes as well.

**Dr. Stanley Bass:
With Three Generations of Vegetarian Hygienists**

"In these three generations, we have here a laboratory of the highest biotic quality that has been continuing for 42 years, producing evidence of the great value of Natural Hygiene" "Cursio: I noticed in the beginning of the third generation ... the nearsightedness, the hydroceles, and the abnormalities." "What caused all this? - The excessive fruit eating and B12 deficiency"

The following excerpts from a booklet with 1962 and 1976 interviews with Dr. Gian-Cursio by Dr. Bass, "With Three Generations of Vegetarian Hygienists", illustrate the difficulties early Hygienists had of putting together a vegetarian/vegan diet that was optimal and sufficient in all nutrients, as well as being as raw as possible.

This text is still extremely important, since similar mistakes are still being made today, typically by aspiring vegans and vegan raw-foodists. Deficiencies that sometimes hardly are noticed in the first generation, will show in children and grand-children. Free download of the complete text is now possible from the books-page www.dr.bass.com/books.html.

Dr. Bass' later research concentrated on finding the ultimate vegetarian diet. The result can be found in "In Search of the Ultimate (Vegetarian) Diet", Volumes I and II ["Discovery of the Ultimate (Vegetarian) Diet"], download possible at www.drbase.com/books.html, and in articles on this website.

-- Note: Newer research has now made Dr. Bass now concentrate on a more comprehensive ultimate diet, which includes non-vegetarian and vegetarian foods.

Also, read the follow-up article "New Concepts in Nutrition" webpage, where Dr. Bass explains the energy concepts in more detail - giving a summary of nutritional knowledge accumulated over a lifetime.

Excerpt from "With Three Generations of Vegetarian Hygienists"

by Stanley S. Bass

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Note: The following is taken from a recording which I made on October 10, 1976, of the dialogue between myself and Dr. Cursio for the purpose of supplying the information that Dr. Shelton requested of me regarding the "With Three Generations of Hygienists" article, as well as to present the changes which evolved in Dr. Cursio's dietetic views over the years from September 2, 1962, to the present time, October 10, 1976. Dr. Cursio called the Penepent family in Batavia, N.Y., and connected with Anthony Penepent.]

Dr. Cursio: Anthony, twelve years ago Dr. Bass wrote an article about the Penepent family of three generations of Hygienists. He sent it to Dr. Shelton and Shelton liked it, but it was 12 years too late. He wants to update it. He wants to know how many members there are – and the general psychological qualities of the family. Are they calm? The schooling, how many in college, how many graduated, the business, and all that to give an idea of how they increased in productivity and social orientation? Here's Dr. Bass.

[Note: Anthony Penepent was 30 years old and of the third generation when I talked to him in 1976. I asked him about the family and he replied:]

Anthony: Dr. Cursio first took care of my mother and father in 1935. They were Hygienists before I was born. [This is an important point.] My brothers were all youngsters when they became Natural Hygienists under Dr. Cursio's care. My brother Phil, he was the oldest, and about ten years old then and 25 years older than me. He had a heart condition. There were eight girls in the family. As a rule you could say that they kept away from drugs and all that and they've lived pretty good. And they're usually pretty calm. They're not argumentative which they ascribe to our lifestyle. One of the members of the second generation, in his middle 20's, has a bachelor's degree and a doctorate, and he's halfway through his medical basic sciences and he intends to be a medical doctor, but to practice Natural Hygiene. He was born after his mother had been in Hygiene about 10 years. [Note: all his brothers now have offsprings from which these thirty people came]. One had a serious cardiac condition in the early teens, who is now still a vital, healthy human being.

Dr. Bass: Are the children being raised the same way?

Anthony: Yes, they all are. Dr. Cursio sees them every time he comes here. Now from the father who was very ill, one of the sons is finishing medical school. He's in Italy. One girl is graduating from college in education.

Dr. Bass: You don't have the names? It may be confusing. [Note: At this point, Anthony suggested I get the names from Dr. Cursio. We said goodbye here, and I continued the conversation with Dr. Cursio, who was present during the phone conversation.]

Dr. Cursio: He's raised four children Hygienically: Phil Jr., the oldest; Mike, a college graduate; and David and Mary Ann. That's in this one family now where the father, Phil Sr., was seriously ill with heart trouble, rheumatic heart at age 12. Now, I noticed in the beginning of the third generation, some of them that were born–this is where I noticed the nearsightedness, the hydroceles, and the abnormalities. Then I made my shift into more green stuff, blended salads early, cut out the orange juice – like I'd give the child the milk and I'd use the vegetable juice. Then I saw the difference. The children were better – were more sturdy. Instead of pigeon-chested or chicken-chested, they were fine-chested.

Dr. Bass: In other words, you kept the blended salads going?

Dr. Cursio: Oh yeah! That was the change. I don't think there's a dental carie in the whole group.

Dr. Bass: That's a permanent change then, increased salads and blended salads?

Dr. Cursio: Yeah! They subsist 90%, I'd say 95%, on unfired food—and the other percentage they'd have some steamed vegetables like rice or potato or legumes. Basically, it's unfired. That's it! You've got it all. They are representative. This family is representative of many families in the area and elsewhere, where they've been raised this way. But this is like a sample, a sampling.

The following represents the changes which have evolved in Dr. Cursio's dietetic views over the years leading up to the present time [ie, 1976].

Dr. Cursio: I observed many cases of pregnant women who had difficulties, women who were physically inadequate to have children and hence after pregnancy they accepted Natural Hygiene in order to have children that were healthy and also to make it possible for them to survive. In other words, sick women came to me. They were pregnant. They were having all they could to survive on their own, without pregnancy.

Dr. Bass: Talking about you [and your patients]?

Dr. Cursio: Yeah. I'm speaking now of the women who came to me. I'm speaking now how these changes took place – especially in the care of children—so that we have here problems that came up in the children when I followed the strict fruit program with nuts, and minimal amounts, compared to what I use now, of green stuff (salads). These children, the skeletal development wasn't right, the dental arches were not well-formed, teeth came in crowded because of it. I noticed a great deal of boys that were born who were herniated – who had what we call hydroceles. So, with the noticing of these conditions and other miscellaneous...

Dr. Bass: Can you state specifically what diet they were on?

Dr. Cursio: Their diet would be predominantly fruit, nut proteins, and a relatively small amount of salad compared to what they get now – they used to get one salad a day. They'd have a fruit meal in the morning, a fruit meal at noon, and a salad at night. In the morning, they'd have just fruit; at noon they'd have the fruit and nuts, and at night they'd have the salad, sometimes with nuts and sometimes with vegetables – but on this kind of a setup, I've been noticing the inadequacies in these children. Then I made the drastic changes! First I noticed the hydroceles, nearsightedness, the skeletal development. And the musculature was not developed in these children. But, at any rate, I started to think. In line with this of course were other things that I noticed with other individuals – people who had been living this way and living, I know, 100%. One of them – I don't think he's [Dr. Shelton] going to publish this – with Miss Natural Hygiene. There were two Miss Natural Hygiens. One of them came to me with multiple sclerosis. And gum recessions, dental caries I noticed. But a great deal of gum recession and marginal erosion of the gum line of the teeth. Now, at first I ascribed this to the citrus fruit, so I cut it down. I cut down on the amount of fruit, without making any relative increase in the green stuff (salads). Then, I finally found that though there were slight improvements, they were not sufficient. So then I figured there's got to be an additional factor here. There's got to be, what, I had talked to Weston Price about it – he was one of the men I spoke to. And, I said this is an X-factor that's missing – I don't know what it was. Later on, you know this work done on B 12 , I came to the conclusion that this perhaps was one of the factors that could lead to this kind of pathology.

Dr. Bass: Deficiency in B 12?

Dr. Cursio: Yes! It was only after adding green stuff that I started to see in the pregnancies that followed, and also in the children that were grown, that came from these pregnancies, the difference. Round heads instead of pear-shaped heads, better-formed teeth. And all the aberrations I had noticed – the near-sightedness, the hernias, the hydroceles, and the musculature that was weak – that all disappeared. There was never another case after this. I was also able to witness an increase, for example, in the blood chemistries, the improvements in the mothers and in the adults, who were put on this kind of a setup. Hemoglobin – where they had microcytic anemia or macrocytic anemia, the nutritional anemias – they cleared up. Now, this was with the addition of the salads, but even so, I was not satisfied. In trying to evaluate the absolute amount of every nutrient, I found it was inadequate. They couldn't eat that amount, and they didn't have the time to eat that amount.

Dr. Bass: The salad?

Dr. Cursio: Hence the blended salad. To insure the proper impact, the proper intake in sufficient amounts with minimal expenditure of energy, especially in the ill, so that we had the assimilation, and we had the utilization with the minimal usage of vital power, and leaving sufficient energy, you know, for reparative and healing and restorative purposes.

Dr. Bass: What about the oxidation factor which occurs during blending?

Dr. Cursio: Well, sure, there's a minimal amount, but that was overcome and balanced up by the increased utilization. Now, because there was increased utilization, you had to be very selective in the kind of foods you used. So you didn't want an imbalance of nutrients. You didn't want to have an imbalance of the chloride ratios, you know, like an overload of potassium over sodium. There have been some studies made which indicate that potassium in excess could prove carcinogenic, you know, could create an ionization, I mean. There was some work done with the Japanese. And I was in correspondence with one of the men who had done this work, so that I was very cautious that I used only certain raw things that I felt had this proper ratio.

Dr. Bass: Can you mention any names of these people?

Dr. Cursio: This Japanese fellow, I'd have to get the letter. Marvin has this letter. He has a copy of it. I can't find the original. But he wrote to me. As a matter of fact, I was going to have his article published in a magazine, but we just didn't go to press anymore.

[Referring to Journal of Health, edited by Christopher Gian-Cursio. Winter 1964 was the last issue.]

Dr. Bass: In sending this material to Dr. Shelton, shall I quote you?

Dr. Cursio: Quote me – also your observations too. These were studies that were made on hundreds and hundreds and hundreds of people. What we call clinical studies and observations, in which there was a morphology, a clinical observation based on, you know, recovery, rates of recoveries. And also in post-fasting nutrition, when this kind of setup was used, that they rebuilt and were able to get back to a normal musculature. There were individuals who came to me, for example, who'd never been able to go beyond the skeletal stage. After they fasted they just seemed to stay thin – and no matter what you tried. And after you gave them blended salad for awhile, they started to fill up again.

Dr. Bass: And they wouldn't do it on the whole salad?

Dr. Cursio: But the one thing that forced my attention to the defects, that was the recession of gums and the marginal erosion of the gum line of the teeth, nails that wouldn't grow, nails that were deformed, toenails, fingernails, all of this. Also warts tend to form on these cases. They tend to get moles or proliferation of moles. And there were all things of this nature that started to make me suspicious. Why, in a so-called ideal diet, was this happening? I didn't want to go back to meat. I didn't want to go back to fish, as some Hygienists did in the past, like Walter did.

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Continued in the booklet "With Three Generations of Vegetarian Hygienists", that you can download for free here --- drbass.com/books.html.

Interview with Dr. Bass:

Q: *How well-known is it that all-vegetarianism (veganism) can cause health trouble?*

A: Amazingly enough there is still a lot of educational work to be done. For example, listen to this voice, from the October 2002 M2M e-magazine:

Letter to M2M from vegetarian raw-fooder:

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2) I hereby request people who have had either very good results (healings and/or robust health) or very poor results (health problems) on a raw vegan diet to briefly write-up their experience and mail it to me.
I am doing research for a book in which I will publish an unbiased study on the experiences people have had with the diet. This book will include any reports of great healings and robust health, but will also include reports of people apparently crippled or whose death seems to have been related to the diet. If any of you know people who fall into either category, please request that they send me their story.
I feel that an unbiased study and report needs to be done. Let me explain why.

My own experience with raw foods is as follows. When 17, I met an elderly Essene man who was a raw fooder who ate dairy. He became my mentor and I followed his diet. We made raw yogurts and other fermented dairy products from mostly goat and sheep milk from animals well taken care of. (With fermented dairy the lactose is predigested and does not cause mucous and is very digestible.) I ate that diet for many years and was very healthy. Then, due to my attraction to the philosophy of veganism, I became a vegan raw fooder. I never felt as healthy on that version of the diet and after five years on that version I lost the use of my feet and was nearly crippled. I had to crawl to the bathroom. I had my blood tested and was B-12 anemic. I began taking B-12 and eating dairy. The B-12 healed my nerve problems, but I believe it was the protein in the fermented dairy that healed my feet and muscle tissue. (On the vegan version my muscle tissue seemed to be eating itself; after adding the yogurt my muscle tissue healed itself.)

Since my negative experience as a raw vegan I have been on the mostly raw with fermented dairy version another five years and feel fantastic. Thus, all together I have eaten the raw with dairy diet 15 years, always feeling fantastic and being physically fit. The five years as a raw vegan resulted in my body falling apart.

While I was a vegan I preached that philosophy with great fervor. I truly believed it was the best diet. Whenever I heard a raw vegan or cooked vegan describe health problems that they experienced on the vegan diet, I chalked it up to either 1) They are just detoxing; or, 2) They are not following the diet correctly. But after my own negative experience as a raw vegan I began to honestly open my eyes. The following is a synopsis of what I found.

Because I was by this time a "noted raw food speaker" and intimate with other famous raw food speakers/experts, I was often at their homes and getting to know them. I found that many of these noted speakers/experts/authors were experiencing anxiety attacks, panic attacks, clinical depression, and various muscle tissue and other problems. However, what was most troubling, is that they didn't want the public to know. I won't name names because that would be betraying confidential interactions, but many of them called me when they were needing some sort of advice for dealing with these ailments. Then, at the next big raw food conference, there that person would be, preaching the amazing benefits of the 100% raw vegan diet, signing copies of their books, and speaking negatively about cooked food eaters and those who eat only partially raw or are not vegan. This was a major eye-opener for me. I realized that once a person is earning their livelihood and getting their "positive strokes" by being an author/expert on the raw/vegan diet, it is very hard for them to admit that the diet is not working in their own life. It would mean that their own books were no longer valid, and they would need to find another way to earn their livelihood.

But there is another reason that raw food author/experts (as well as the non-famous raw vegans) do not publicly admit their problems with the diet. Because people have been shamed into not admitting their hardships on this diet, each one believes they are the only one having the problem. This is especially true with anxiety attacks, panic attacks, and depression. I have been in a room with seven raw food experts and had personal knowledge that five of them had been struggling with those problems, and yet each of them thought they were the only one. Because I am a minister, many of these folks felt comfortable enough to seek counseling from me, but would not feel comfortable mentioning their problems to others. I once lived in a house with several raw food vegans. Every one of them ended up with nervous disorders such as panic attacks. One of them went on a raw food chat board and asked if it might be due to the diet and perhaps they should take B-12. The moderator of that chat board wrote back saying that the diet is perfectly fine and they were just going through detox. However, I was a personal friend of that moderator and so I knew what the other people on the chat board did not know: I knew that the moderator himself was suffering from terrible panic attacks and was even considering suicide (he had confided that to me, but on the chat board he moderated he still preached the party line: all problems are just detox). I then read an issue of Chet Day's Health and Beyond newsletter in which former students of T. C. Fry wrote in and described how they had become crippled following his diet. I read another interview in that mag of a Natural Hygienist doctor who said that health problems "invariably" result in a 100% raw vegan diet.

Then, in a town very near me, one of the founding members of the local raw food group died at a very young age from heart problems. My guess is he was about 49 or so. The doctor told his wife that the man's body had begun to eat itself and destroyed his heart due to malnutrition. His body had not been getting enough nutrition on the raw vegan diet, as he did not absorb enough nutrients from raw foods. When his wife shared that info with the members of that raw food support group, she was told "the doctor is wrong. And if you are going to speak negatively about raw foods you are no longer welcome to attend." That was the support she got when her husband had just dropped dead. I then told a woman from a California raw food support group that story. She responded, "Oh, we just had a guy die from the very same thing. The doctors said his body had begun to eat itself due to malnutrition. I began to wonder how prevalent these sorts of problems really are.

I could go on and on reporting similar things. But suffice it to say that I now believe there are problems with the raw vegan diet. And now that I have begun to share this sort of information, I am getting the exact response I have seen others get when they shared such info: brushed aside with some sort of negative remark.

Here is what I have decided to do. I am soliciting peoples experiences, good and bad, with this diet. I am doing a research project. It will be unbiased. In three years or so I will publish the results.

Last remark: I still think raw foods are great! I have thrived on a raw diet with yogurt for 15 years. I have friends who have thrived equally long including eggs in their raw diet. So, I am not against raw foods, I am in favour of them, but now believe there is something missing in the vegan form of the diet. I guess it is appropriate that, as an Essene, I now find myself supporting the version of the diet given by Jesus in the Essene Gospel of Peace (raw diet with dairy). When I was a raw food vegan I was embarrassed by Jesus' including raw dairy in the diet. Now I realize he knew what he was doing!

.... if you know of anyone who had either a great healing/robust health or bad problems on the raw vegan diet, send me that info for my research project:

In case you want to contribute - contact the Natural Health M2M and ask for the email address.

Q: *I am supplementing my vegan diet with B12. Shouldn't that be enough?*

A: You have to supplement with complete D-vitamins as well. What we get from the sunshine is only part of what we need. And do you get enough long-chained fatty acids? These are not available from vegetables, only from animal fats, and are necessary for normal brain and nerve development. A good source is fat fish, e.g. (wild) salmon. For more on fats, read this extract from <http://www.mercola.com/2002/feb/2/vegetarian.htm>, Part 1:

Fats And Brain Size

"..... About half our brain and nervous system is composed of complicated, long-chain, fatty acid molecules. The walls of our blood vessels also need them. Without them we cannot develop normally. These fatty acids do not occur in plants.

Fatty acids in a simpler form do occur, but they must be converted into the long-chain molecules by animals - which is a slow, time-consuming process. This is where the herbivores come in. Over the year, they convert the simple fatty acids found in grasses and seeds into intermediate, more complicated forms that we can convert into the ones that we need.

Our brain is considerably larger than that of any ape. Looking back at the fossil record from early hominids to modern man, we see a quite remarkable increase in brain size. This expansion needed large quantities of the right fatty acids before it could have occurred. It could never have occurred if our ancestors had not eaten meat. Human milk contains the fatty acids needed for large brain development - cow's milk does not. It is no coincidence that in relative terms, our brain is some fifty times the size of a cow's.

The vegetarian will be dismayed to learn that while soy bean is rich in complete protein, and grains and nuts also combine to provide complete proteins, none contains the fats that are essential for proper brain development.

Although the eating of fats today is believed by some to be a cause of heart disease (erroneously, see *The Cholesterol Myth*), we know that our ancestors ate large amounts of fat. Animal skulls are broken open and the brains scooped out; long bones likewise are broken for their marrow content. Both brain and marrow are very rich in fat. "

(Note that flax seed oil contains a shorter-chained omega-3 fat ALA, which is a precursor to the long-chained omega-3 fats found in fish, DHA and EPA. More at www.mercola.com.)

Q: *What do you recommend if I am an ethical vegan not taking supplements?*

A: To be a successful vegan you have to be knowledgeable enough to avoid mistakes.

One problem area is deficiencies, e.g. of B12 and D vitamins. First, it is not unethical to use dairy and unfertilized eggs. Second, (bee) pollen is a good complement to a vegan diet. Another option are certain fermented products based on nuts, that contain bacteria-made B12 - but I consider these poor substitutes.

I once had a satsangi patient who said he would rather die than eat animal foods. So I recommended bee pollen. The amount should be minimum 2 tbsp per day, preferably more, perhaps 1-2 tbsp per meal. But I have lost touch with this person, so I don't know if it was enough to keep him in good health. In my mice studies, mice could survive and stay healthy on bee pollen and vegetables for a very long time, comparable to many decades for humans.

Concerning eggs and dairy, these should also be eaten at least once a day (it can be small amounts, and should be raw) - twice a week is not enough to stop degeneration, according to my mice studies. Make certain you read "With Three Generations of Vegetarian Hygienists", download here , and "The Ideal Vegetarian Diet by Dr. Cursio" here, for other good ideas for a healthy vegetarian diet.

Warnings signs that you are on a deficient vegetarian diet can be strong cravings, depression, or start of body disintegration. Note that you can live on a deficient diet for a long time, but you won't feel perfectly well and you won't function optimally. And one day you will have exhausted your reserves.

Another problem area is food quality and toxicity. Organic is better than non-organic. Raw food is better than cooked. And minimize carbohydrates, of any kind, see this page for reasons why, - instead eat more (vegetable) fats and proteins.

DANGERS OF VEGAN - FRUITARIAN DIETS

OPTIMAL DIET? - 2

PROBLEMS WITH VEGANISM: *In frustration over diet-battles in Natural Hygiene, leading nowhere, and the difficulties getting reliable information, Dr. Bass started doing his own mice research in the 1980's. His results confirmed the results Dr. Cursio got from following several generations of patients - that veganism will result in deficiencies. Another conclusion: fruitarianism is dangerous.*

Dr. Stanley Bass: In Search of the Ultimate Vegetarian Diet

"After two years of experiments I concluded that the ideal diet is approximately 75 to 85% raw food" "I still worry about people who attempt to be fruitarians." "Most bodies can handle toxemia for a long time. Deficiencies damage us much more quickly."

Excerpts from "In Search of the Ultimate Vegetarian Diet"

"As a believer in raw food vegetarianism myself, I feel a moral imperative to share the disturbing, surprising results of my experiments with mice. "

OVERVIEW

The following materials represent a four-year project I undertook to answer fundamental questions about nutrition, questions such as what is the best diet for humans? Which is most conducive to maximum life span, health, happiness, and freedom from disease? Can it be a diet which includes meats? Seafood? Fruitarian?

..... I wondered how long I would have to wait to discover relevant information. I felt it could easily take another hundred years. I felt so frustrated that I started to think about setting up my own mouse trials.

..... Now, how do most people work out their theories and approaches to diet? From books. If the book is in error, like the old joke says, "Nice fellow, he died of a misprint, you know." It can happen, easily. We need broad studies on vegetarianism, all the different types of vegetarianism.

ADVANTAGES OF WORKING WITH MICE

..... Why are mice experiments so good? Well, as the medical man who headed the Longevity Research Institute in California, Dr. Roy Walford, neatly observes in his book "Maximum Life Span":

"If mice cannot live on a diet, you can be sure humans can't."

Dr. Walford explains that the metabolism of mice is close to humans. As warm-blooded animals, mice suckle their young. They require much the same minerals, vitamins, enzymes, proteins, and carbohydrates that we do. Mice need just a little less food that we do for their size, and their life span is proportionate, a ratio of 30 to 1, thirty days of human life to one day of a mouse.

DIFFICULTIES IN OBTAINING CLINICAL EXPERIENCE WITH PATIENTS

Speaking as a practitioner, there are problems with trying to get answers from clinical experience with human beings. Simply put, if you put people on a diet, they will cheat much of the time because it's difficult to change from one diet to another. When your patients come back to you for re-examination, lots of times they're ashamed to admit they've cheated. So they lie to you, and you can't get a true picture. Let me give you an example.

I'll ask, "Did you follow the diet?"

"Yeah."

"What do you mean, 'Yeah'? A hundred percent? What percentage?"

"Why, I'd say about 90%."

"What did you eat that was not on the diet?"

"Well, I had a pizza one time, and we had a Bar Mitzvah so I had steak there..."

Too often they get tempted to stray from their diet, go on a binge, shrug, and say, "Well, tomorrow I'll start." You can read about this in my book "Overcoming Compulsive Habits", which discusses all the copouts there are.

DIFFICULTIES DUE TO HUMANS' VARYING NUTRITIONAL RESERVES - EXAMPLE B12

..... Unlike mice - whose deficiencies show up immediately - a human can go for many years before he uses up his reserves and his body begins to deteriorate.

Consider the B12 factor. It's been discovered that human beings can function five or more years without getting B12. They are living on their reserves. Then, after five years, some people will start to develop symptoms. Others can degenerate and completely break down in five years. But many can last for up to ten years.

DIFFICULTIES DUE TO DECEPTIVE FEELINGS OF WELL-BEING ON CERTAIN DIETS

..... There are other reasons for a deceptive feeling of well-being. Even if you practice a regimen for a year or two you might feel good simply because you are stimulated from an increased sugar content in the diet, as in fruitarianism. You get on a kind of high. You say, "Wow, this is a paradise diet. I'm in heaven. This is the way to live!" You follow the diet happily and then, wham, you run into a vitamin deficiency, your health falls apart, and you can't reverse it anymore. This is a danger in fruitarianism.

LUIGI CORNARO LIVED 102 YEARS

If you follow a minimal diet you can achieve super nutrition. Let's look at Luigi Cornaro, a man who at age 35 was weak, sick, and dying. [Click here for the continued story.](#)

TEST STARTS

Not surprisingly, I decided to begin with a test of the fruitarian diet. Additionally, a prominent educator was writing that the fruitarian diet was the ultimate diet of man, that man is a fruitarian by nature, and that we shouldn't even eat vegetables. I said to myself, "Okay, let's see what the mice have to say."

MY PERSONAL EXPERIENCES WITH FRUITARIANISM

Now I had tried to be a fruitarian myself for two years when I was in my early thirties. I followed the teachings of Arnold Ehret, and I ran into problems such as inflammation of my gums, some loosened teeth, a noticeable paleness and weight loss from 170 to 140 pounds. I lived as a fruitarian for two years with very little cheating. I had always attributed my failure as a total fruitarian to the fact that I didn't have enough willpower. It wasn't until my mice experiments thirty years later that I realized the cheating saved my life.

MICE AND THE FRUITARIAN DIET

I put a group of mice on a fruitarian diet. But they didn't seem to be eating very much fruit, and they certainly weren't crazy about it.

..... When I returned them to the fruitarian diet, after the second day they started the cannibalistic behavior again. They grabbed another young mouse and this time they ate it. The poor thing. I saw it happen. I was shocked. I'd never seen anything like this. "What happened here?" I asked myself.

I had given them a fruitarian diet, a diet that some natural health practitioners fervently believe in. Then I added corn, then avocado, foods that fruitarians are not supposed to include, and still I ran into trouble. It really scared me to witness what had happened to my mice. I worried then and still worry about people who attempt to be fruitarians.

DEFICIENCIES FROM FRUITARIAN DIET

..... To relate the results to humans, this trial seemed to indicate that after being a fruitarian for the human equivalent of three months, humans would show deficiencies and imbalances and health problems. My results suggested that if a fruitarian lived strictly without cheating he would be able to do so for three months before deficiencies began to show. But since the average fruitarian cheats, he doesn't know the diet doesn't work. If he didn't cheat, after three months his body would start breaking down. He wouldn't necessarily die, but problems would start to develop.

I immediately added greens, lettuce leaves, and carrot tops. I was stunned by this experience. I determined that the cause of death was due to protein deficiencies, mineral deficiencies, and possible sugar poisoning from the excess fruit. This shocked me. I became so disillusioned that I stopped fruit in all the cages. I had about five cages at the time with about 150 mice. From there on no mice got fruit anymore. Only later, after many months, equivalent of several human years, did I gradually re-introduce a little fruit

LOOKING FOR A CANCER DIET

Then I began another diet. At the time I was looking for a nutritional approach to cancer. I was also looking for a diet that had everything the body needed but was close to a fast for those people who couldn't fast. For example, people who were emaciated, people who had a fear of fasting, or whatever.

HOW TO SURVIVE DURING A FAMINE

..... or you were poor, you were broke, and you had a large family it's interesting to realize that you could bring the whole family up in perfect health on dried milk or whole milk plus whole wheat alone and nothing else.

TOXICITY VERSUS DEFICIENCY

..... In other words, you could live longer if you ate a complete diet which had salt and pepper and contaminants and chemicals, even fluorides in the water, even sprayed chemicals on the food, than if you ate an incomplete diet. But if the foods were whole and natural, you would live longest and healthiest.

..... We are all more or less toxic to some extent, and we all increase toxins in the blood temporarily when we exercise, but we are not all sick. Most bodies can handle a large degree of toxemia for a long time. Deficiencies damage us much more quickly.

That's the difference between the two evils.

..... In humans, the deficiencies develop more subtly. You could be a vegetarian on a very imbalanced diet and feel good for five, seven, even ten years, but after ten years you'd start to fall apart when you have used up your reserves of B12 and D. When that happens, down you go. And once down, it is very hard to get back up.

THE IDEAL VEGETARIAN DIET

To jump to the end for a moment. After two years of experiments I concluded that the ideal diet is approximately 75 to 85% raw food, with the rest cooked vegetables

TESTING EGG YOLK AND EGG WHITE

..... Interestingly, in the raw food vegetarian cage of mice, when I substituted egg yolk instead of cheese, the growth was even more rapid.

..... And all the books were saying, "Egg yolks, stay away from them. You'll die of cholesterol. They'll give you heart attacks." For me, I considered one egg a good maximum. Two only for emergencies. Even though Dr. Cursio used daily as many as four egg yolks on some patients, their blood pressure dropped steadily. I found the same to be true. Lecithin in egg yolks appears to negate cholesterol deposition in arteries.

When I saw the results with the mice, I changed my opinion about eggs.

GREENS WERE INDISPENSABLE

..... I found that greens were indispensable. I had tested all the vegetables, and I found that the mice preferred lettuce and carrot tops to all the vegetables. In fact, I raised them for over ten years in human time almost exclusively on lettuce. Mostly iceberg because I was able to get the outer leaves free. And they did well even though we know iceberg lettuce isn't the best lettuce.

..... Every time I made a discovery with the mice I introduced it with my patients. I found with each discovery that when I introduced it into the diet of a patient, greater improvements resulted. I was excited. I was into new territory, and I saw no limit to the tremendous knowledge that could unfold. Dr. Cursio was also excited because my findings helped to verify his work as accurate.

MAXIMUM AMOUNT OF FRUIT TO EAT

..... You should eat no more than two to three varieties daily of medium fruit - like an apple, an orange, and a banana. Save bananas for the end of the day. Or half a cantaloupe and a mango. Or two medium grapefruits and a handful of cherries.

GORILLAS, ORANGUTANGS AND CHIMPS

..... I'm going to tell you something interesting. The highest apes related to man are the gorillas, the orangutangs, and the chimps. A chimp will eat maybe up to 50% fruit, but they are nervous characters. Now the orangutang will eat up to about 15% fruit. The orang's a beautiful animal and much more gentle and lovable than the chimp. But a gorilla eats only 3% fruit. Did you know it will bypass fruit for vegetables and shoots?

IN CLOSING

..... the solution is simple. Small adjustments in the raw food diet can help users avoid slowly developing but disastrous health problems. These small changes can lead to optimum longevity and magnificent health - physically, mentally, and spiritually.

As a believer in raw food vegetarianism myself, I feel a moral imperative to share the disturbing, surprising results of my experiments with mice. I hope to help health seekers avoid hidden dangers in their journey toward health, strength, and happiness. I hope my discoveries have shed a little light on your journey.

Dr. Stanley S. Bass, from In Search of the Ultimate Diet

Interview with Dr. Bass:

Q: *So you were a fruitarian, and a raw vegan, and finally came to the conclusion that those diets will cause deficiencies?*

A: Actually this is quite a common route. Many vegans (who are not cheating) have through their own experiences come to the same conclusion.

Here is an typical example from Arnold DeVries book "The Elixir of Life":

.....

MAHATMA GANDHI

"The late Mahatma Gandhi devoted much of his life to the advocacy of strict vegetarian diet, and for years he experimented on his own body to find a suitable selection of plant foods on which to sustain health.

But all attempts were failures. In 1929, Gandhi and 22 companions went on a diet consisting of a limited selection of uncooked plant foods. Whereas the diet worked out well for a time and led to marked improvement in consumptive cases, it failed to prove adequate on a long-range sustenance basis. One by one Gandhi's companions were forced to depart from the diet, and Gandhi himself had to add goat milk to his fare in order to regain health.

"For my companions I have been a blind guide leading the blind," declared Gandhi after the experiment was over. Gandhi still felt, however, that "the hidden possibilities of the innumerable seeds, leaves and fruits" of the earth could be explored and found to provide mankind with adequate nourishment. He never stopped trying to experiment along these lines, but he always had to turn back to goat milk to regain his strength.

In the end he had to acknowledge the necessity for animal food. In 1946 he declared: "The crores of India today get neither milk nor ghee nor butter, nor even buttermilk. No wonder that mortality figures are on the increase and there is a lack of energy in the people. It would appear as if man is really unable to sustain life without either meat or milk and milk products. Anyone who deceives people in this regard or countenances the fraud is an enemy of India."

These are strong words from a man who devoted most of his life to the search for a satisfactory vegetarian diet. But Gandhi's experience is not unique in the field of nutrition. Many others have also gone through the experience of believing that man could thrive exclusively upon a limited selection of uncooked plant foods, only to find in the end that animal products were necessary for sustenance.

...."

Note that Arnold DeVries himself started out as a convinced fruitarian, but in the end became a strong supporter of Weston-Price theories.

And here is another example:

Deficiencies on the Vegan Diet Nearly Destroyed our Health.

By Greg Westbrook - Author of: "When Hallelujah Becomes: What Happened ?"

.....

When we transitioned to an all-raw vegan diet in 1994 and then to the Hallelujah Diet (an 85% raw vegan diet) in 1997, we were so pleased with the results that we never dreamed our diet would one day let us down. We did not have the vision to realize that we were on a deficient diet barreling down a road to nowhere, and that we would one day have to stop the car and back up a very, very long way.

.....

My weight had dropped to 120 pounds, and I was only a ghost of my normal weight of 155 pounds. We heard from the grapevine that people were talking about how old and tired Judie and I were looking.

I had also lost almost all my digestive power as well as five teeth to decay on the Genesis 1:29 Diet. And I was always cold, the result of slowing metabolism. Things were not looking good for us, but we still did not make the diet connection at that time.

Since we thought we were on "God's Ideal Diet," we decided to try even harder at the diet. More raw food, more juicing, more dehydrating, and soaking nuts and sprouting seeds, more Barleygreen, more exercise. And this is what we did for another year. We worked harder at the diet than ever, but to no avail.

We were rewarded with even more severe health problems.

Judie's head and neck-aches became unbearable, almost making her an invalid. I was extremely cold, and eating food always seemed to drag me down, rather than pick me up. Our daughter Sarah had no stamina or energy, and her food cravings had become almost unbearable. Our sons had problems too: Tim had no desire to do physical work any more, and Terry was beginning to suffer constantly from anxiety and depression. Worse yet, we were beginning to see the same problems in others outside our family who were on the Genesis 1:29 Diet.

By the spring of 2001, it began to dawn on us that we had better take another look at our diet.

.....

Visit www.chetday.com for the whole story, and where you also can read about Chet Day's own vegan experience.

Find more examples at the non-profit INTERNATIONAL NATURAL HYGIENE SOCIETY'S website - www.naturalhygienesociety.org/diet3.html

DANGERS OF VEGAN - FRUITARIAN DIETS

OPTIMAL DIET? - 3

PROBLEMS WITH VEGANISM: This 1912 rat experiment confirms Dr. Bass' own mice experiments, and also concludes that veganism will cause deficiency.

VEGAN DIETS ARE DEFICIENT - SCIENTIFIC PROOF ALREADY IN 1912

Animal experiment - vegan rats die early and have low energy

The following article is an excerpt from a 1912 scientific experiment on albino rats. The purpose was to compare the effects of a vegan (strictly vegetable) diet and an omnivorous diet. The diets were identical, except for a small addition (a few grams) of animal food 3 times per week to the omnivorous eaters. Even this minimal difference produced large differences in health and longevity of life.

For example:

"When the vegetarian male died it was 22.8 months old. The omnivorous male had accomplished the same amount of work when it was but 6.9 months old and had lived but 22.5% of its life. "

"In regard to growth, we must conclude that the data is decidedly in favor of the omnivorous rats and against the vegetarians."

"The ratio of omnivorous to the vegetarians in regard to efficiency would be 100 : 20.9, or about 5 : 1."

"After the third month the general average of the vegetarians falls below that of the omnivorous."

"We must not lose sight of the fact that this difference in ability to do work is caused by the presence of animal food in one diet and the absence of it in the other, this being the only difference in the environment."

"The vegetarians were emaciated and skinny. Their back arched and more or less stiffened. The fur was harsh and ruffled, and the tail and nose inclined to be more or less covered with dry scale and sores. The attitude presented extreme lassitude and indifference. They remained in a crouched position most of the time, their legs appearing too weak to support their weight for only a short while. They lacked energy..."

Remember that some of Dr. Bass mice resorted to cannibalism when they were deprived of animal foods. This was not the case here - the rats were kept in individual cages.

Excerpt from

THE EFFECT OF A STRICTLY VEGETABLE DIET ON THE SPONTANEOUS ACTIVITY, THE RATE OF GROWTH, AND THE LONGEVITY OF THE ALBINO RAT

by James Rollin Slonaker, 1912

From the Physiological Laboratories of Stanford University

Leland Stanford Junior University publications. University series - No. 9 - by James Rollin Slonaker, 1912

INTRODUCTION.

The study of dietetics today occupies one of the most important places in the field of physiological investigation. Many popular articles have appeared in the past few years advocating this or that diet as best adapted to the needs of man. The argument is usually based on the personal opinion of the writer or the effects a certain diet may have had upon him. The personal idiosyncrasies which appear in these articles are too numerous to mention. Such writings are of no scientific value, and only show the trend of a certain class of people.

In contrast to these popular articles appear the writing of various scientific men giving the results of their investigations. These results are based on the comparative digestibility and absorption of the different foods and upon their ability to maintain nitrogenous equilibrium in the animal experimented upon.

The tendency of humanity is to go to the extremes, and nowhere is this more manifested than in dietetics. One class, vegetarians, maintains that man should abstain exclusively from animal foods, the other class claims that the human alimentary tract is more adapted to omnivorous food than to a strictly vegetable diet.

Vegetarianism as used by most people is a misnomer. The larger proportion of the so-called vegetarians partake freely of such animal foods as milk, eggs, butter, cheese and the like. A few, the fruitarians, live wholly on nuts and fresh fruits. Another small group live on nuts, fruits, legumes and vegetables, either in the raw or cooked state. The much larger number of vegetarians (?) live on a mixed diet which differs from the ordinary mixed diet in only one respect - the absence of meat.

Most investigators have studied the effects of a certain diet on the animal for a limited time, which in most cases is insufficient to warrant such sweeping conclusions. Because an animal is able to maintain its weight and health for a limited time, is no argument that

it could do so for its entire life. Neither has the effect on the offspring been ascertained. Such results can only be obtained by continuing the experiment during the lifetime of the animal and succeeding generations. The present experiment was undertaken to determine as fully as possible the comparative effect of a strictly vegetable diet, and an omnivorous diet, upon the spontaneous energy of the animal as manifested by its voluntary activity, the effect on its growth, and on the length of its life. An experiment is now under way to study the effect on the progeny. No attempt has been made to study the income and outgo of nitrogen.

MATERIALS AND APPARATUS

In order that such an experiment may be of value a number of similar animals must be used, and the environment of these must be the same in every respect, with the exception of diet.

In this experiment sixteen rats were used to secure these as nearly alike as possible, sisters were mated to the same male.

.....

The apparatus for recording the activity has already been described, (4) but may be briefly given again. It consisted of a series of eight cylindrical cages which revolved on stationary axles to which were attached the nest boxes. The food and water boxes were attached to the ends of the nest boxes. The cage thus revolved about the stationary nest box whenever the rat ran. Automatic devices were attached to register the number of revolutions and to record them on paper kept moving by a continuous roll kymograph. The first device being read in the morning and in the evening gave the daily and nightly run of each rat through its lifetime. The second arrangement showed the distribution of the activity of each rat for each twenty-four hours during its whole life. These records were of great assistance in showing the peculiarities of activity which occurred at different ages.

This apparatus was therefore only adapted to recording the running activity of the animals. Previous observations have shown that the running activity of the rat is proportional to the other activities.

Changes in the amount of the running activity are correct indicators of similar fluctuations in the other activities of the animal.

FEEDING

No attempt was made to give a definite amount of protein food in the diet nor to try to maintain nitrogenous equilibrium. The diet was varied as much as possible, and the amount of food given was more than was eaten before the feeding time on the following day. The feed and water boxes were then cleaned and a new supply given. Cracked corn was always given. The young were weaned at the age of 28 days and placed in their respective cages, as already described. A rich mixed diet, consisting largely of bread and milk with an occasional feed of baked beans and meat hash, was given all to prevent any disastrous effects resulting from the sudden change in environment and methods of feeding. This mixed diet was continued for twenty-eight days. At this age (fifty-six days) all appeared perfectly healthy and normal in every respect. They had each made a normal gain. The males averaged 70.1 grams and the females 59.3 grams.

The difference in the character of the food was introduced at this time, the one group being designated vegetarians, and the other, omnivorous feeders. These two groups were fed exactly the same food each day, with the exception of meat and other animal foods which were given about three times a week to the omnivorous feeders in addition to the vegetable food. The vegetable foods were as rich in protein as it was possible to obtain from this class of foods, and consisted of such articles as the following: fresh vegetables, such as lettuce, kale, cabbage, cauliflower, clover and celery; cooked vegetables, such as white, corn, brown and graham bread, biscuits, buckwheat cakes, doughnuts, crackers, cookies, oatmeal mush, fried cornmeal mush, dumplings, corn, rice, baked beans, potatoes, carrots and onions; nuts, fruits and grains, such as almonds, English walnuts, apples, cracked corn, wheat, and corn meal. Occasionally, when the vegetarians seemed to be losing ground too fast, a feed of cheese, milk, or some other animal food was given. This was done only a few times soon after the vegetarians were first put on their exclusive diet.

As can be readily seen, the above articles composing the vegetarian diet are either found on our tables or can readily be procured from shops. Some of them contained small portions of animal food, i.e., graham muffins usually contain an egg and milk, bread often contains milk, doughnuts and several other articles contain animal fat. As only very small amounts of animal food were present as compared to a large quantity of vegetable food, I have called this a strictly vegetable diet, at the same time realizing it is not absolutely such a diet.

The amount of food given to each rat was not weighed, but measured as accurately as possible with a spoon, or by pieces of equal size. The following few days' diet taken at random will serve to show the variety of food and its frequency.

April 23. Cooked corn, lettuce, cracked corn and water.

April 24. Water-soaked bread, almonds, lettuce, cracked corn and water.

April 25. Baked beans, lettuce, cracked corn and water. Omnivorous had also meat.

April 26. Graham muffins, almonds, cracked corn and water.

April 27. Water-soaked bread, lettuce, cracked corn and water.

April 28. Water-soaked bread, almonds, cracked corn and water.

April 29. Cracked corn and water.

April 30. Mashed potatoes, lettuce, cracked corn and water. Omnivorous had also meat.

April 31. Water-soaked bread, buckwheat cakes, cracked corn and water.

Another example at another season of the year is as follows:

Nov. 14. Bread, cracked corn and water.

Nov. 15. Potatoes, macaroni, cracked corn and water. Omnivorous had also meat.

Nov. 16. Bread, oatmeal mush, cracked corn and water. Omnivorous had also meat and bread hash.

Nov. 17. Water-soaked bread, cracked corn and water.

Nov. 18. Water-soaked bread, cracked corn and water. Omnivorous had also meat and bread hash.

The amount of meat given to each of the omnivorous rats was usually small, consisting of but a few grams. It was given on an average two or three times each week.

We have thus sixteen rats as nearly alike in regard to age, parentage, size and tendencies as it is possible to obtain, subjected to the same environments, fed the same food with the exception that the eight omnivorous feeders had a few grams of animal food added to their diet about three times each week. It is obvious, therefore, that whatever differences may be found between these two groups of rats in regard to their activity, rate of growth, and longevity must be due wholly to the presence and absence of animal food in the two diets.

ACTIVITY

Fig. 11

Curves representing the average daily activity of each sex of the exercised rats at the ages indicated. (OM) is the omnivorous males, (OF) is of the omnivorous females. (VM) is the vegetarian males. (VF) is the vegetarian females.

In studying the characteristics of the activity one needs to refer to the kymograph records. Figures 1 to 10 inclusive are reproductions of such records, and show the activity of each rat for twenty-four consecutive hours at different ages. By comparing these figures a great difference is noticed in the activity at different ages.

Figure 1 represents the activity of each rat at the age of thirty-two days, and just four days after they had been weaned and placed in the revolving cages. There is no regularity in the distribution of the activity and periods of rest. Neither is there any apparent tendency to be more active at one time in the twenty-four hours than at another. They were restless, playful and filled with a spirit of investigation. Since they were all fed at this time on the same diet, any differences in the character of the activity may be attributed to individual variation.

In Figure 2, which shows the distribution of the activity, at the age of six months, two important things are noticed. First, the great bulk of the activity occurs during the evening and early night time; second, the omnivorous rats (O) are more active than the vegetarians (V). There is more or less random running for an hour or so before and after the feeding time (4 p.m.), but the most is done during the night.

At the age of eleven months (Figure 3) the periods of activity and rest are more sharply defined. Also the difference in the amount of voluntary activity of the two classes is very obvious. The activity of the vegetarians is approaching closely in appearance that of old age. (2)

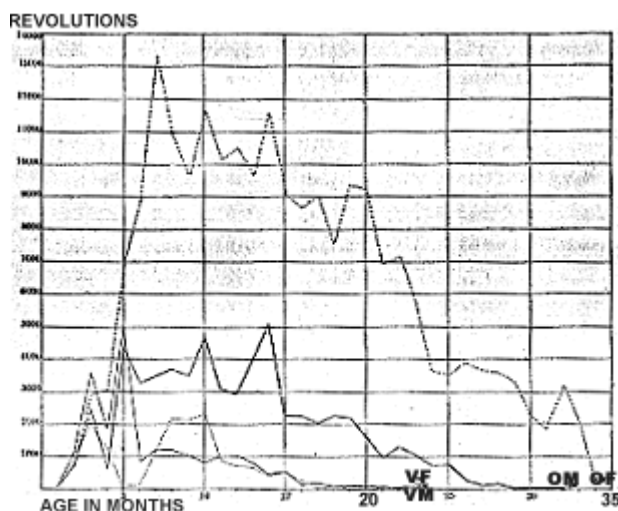
In Figure 4 the activity at the age of sixteen months is seen. Some days previous to this record the feeding time was changed to the morning to see what effect it would have on the distribution of the activity. The main bulk is seen to remain constant, but the usual random running which occurs at the feeding time has shifted to the morning. At this age two of the vegetarians have died and the other two compare very unfavorably with the work of the omnivorous.

Figure 5, which represents the activity at the age of twenty-one months, shows that when the feeding time is returned to the afternoon the periods of activity and rest are sharply defined. The omnivorous feeders are still quite active when compared to the remaining vegetarians.

At the age of twenty-five months all the vegetarians were dead (Figure 6). The records of the omnivorous rats show a marked tendency toward old age. Especially is this true in No. 1 and No. 4.

The remaining figures (7, 8, 9 and 10) represent the records for the ages twenty-six, twenty-eight, thirty-one and thirty-four months respectively. No. 4 in Figure 7 shows the death struggle of this rat, which ended a little before 10 p.m.

In comparing these different records of activity, one notices that in the young rats the periods of activity and rest are of short duration and have no definite arrangement so far as the time of the day is concerned. As the rats grow older the activity becomes greater and occurs more and more during the night time, the periods of rest being confined to the daytime. This continues until the rats reach the prime of life. After some months of almost uniform activity there is a gradual reduction, and the distribution and amount of work done



approaches that of youth. It also shows that the vegetarians are not as active, that they age more early, and that their duration of life is shorter than the omnivorous rats.

Since all the animals were fed on a mixed diet for twenty-eight days after commencing the experiment, any difference in activity during this period must be considered due to individual variation. This variation is sometimes very noticeable, as seen in Table I. This table represents the average number of revolutions of five consecutive days of each rat at the ages indicated. There is not a gradual and regular increase in the amount of running done by each, but fluctuations - now greater, now less. At first this was thought to be due to making the average from too small a number of days. Therefore another table (Table II) was made, by taking the average run of each sex of each group for a whole month. The figures in the column of the omnivorous males thus represent the average of thirty days' run of three individuals. But here again we see the lack of a uniform increase. In other words, the activity manifests itself rhythmically. No doubt if the number of individuals had been greater the results would have been more uniform. In a former paper I have discussed the causes of these fluctuations. (2)

Table II is put in the form of curves in Figure II. The rhythmical variations are very conspicuous. These fluctuations also correspond in many cases both in regard to time and appearance. For example, from the beginning to, the third month there is a rapid rise in the curves, showing a great increase in the daily activity. This was, no doubt, due to the feed, for they were all fed on a strong mixed, diet for almost a month, and on rich food for almost two months. The effect of this food carried them over apparently till the end of the third month, when they began to feel the effects of the lack of it. This was followed in a general reduction of amount of daily activity in all except the omnivorous female, which remained practically unchanged. Then, with the exception of the vegetarian female, there was another general increase up to the fifth month. Again, at the tenth month, all show an increase, excepting the vegetarian male, which shows a slight decrease.

It is especially noticeable that the curves representing the two sexes of the omnivorous feeders correspond much more closely in their fluctuations than those of the vegetarian feeders. In fact after the third month similarity in the character and time of these fluctuations of the omnivorous and vegetarian feeders grows rapidly less and less. The same may be said regarding the amount of daily activity of the two classes. The omnivorous female far surpasses all others. The omnivorous male comes next in order. Then follows the vegetarian female, closely followed by the vegetarian male. The females of each class thus surpass the males of the same group in average daily activity.

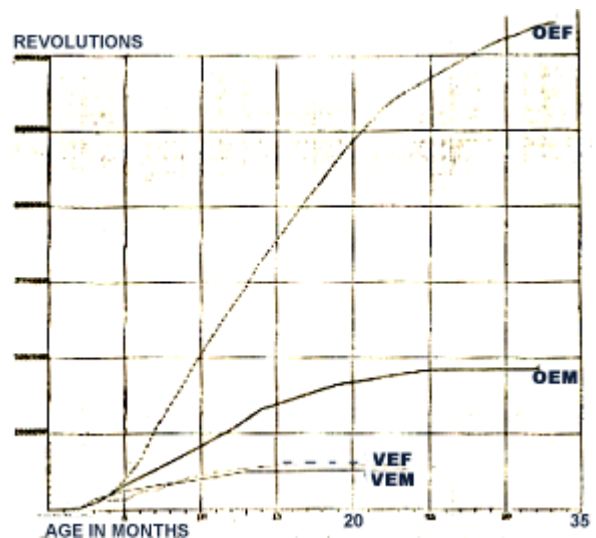
When we consider the time in life at which these rats do the greatest amount of daily running we see, on consulting the curves of Figure II, that it occurs in both classes at an early age in life, usually between the seventh and twelfth month. In the omnivorous feeders it is a little later than in the vegetarians. In a former experiment (2) it was ascertained that the greatest average daily run of the normal male and female occurred when they had reached a trifle more than one-third of their natural lifetime. In this experiment the vegetarians seem to have done their best day's work when about one-fourth of their life had passed. This was equivalent to about one-sixth of the lifetime of the normal omnivorous rat.

Let us now consider the total amount of work, as indicated by the number of revolutions which each of the exercised rats voluntarily made during its lifetime.

Table III represents the total number of revolutions of each rat at the ages indicated. To give a better idea of the amount of work equivalent to these revolutions, the actual distance in miles has been computed and shown in Table IV. By consulting these tables it is readily seen that the work done by all the rats corresponds rather closely during the first three or four months. This corresponds closely to the average daily work shown in Figure II. As a matter of fact the vegetarians average a trifle more at the end of the third month than the omnivorous. This is seen by consulting Table V, which represents the averages of each sex of these two groups. From this I think one of two conclusions may be reached. Either the sudden reduction in the rich protein food of the omnivorous rats to almost a vegetarian diet (meat being given only two or three times a week) has had the effect of checking the activity of all alike, or a strictly vegetarian diet at this age is conducive to a slightly greater activity. If the latter is true it may be explained in this manner: The omnivorous rat had a satisfying diet; the vegetarians did not, and ran a great deal, apparently in search for what they desired. The behavior of the vegetarians strongly supports this supposition. When they were fed they ate ravenously, as if they had been starving. This was not so manifest in the omnivorous. It was true that both classes of exercised rats always appeared more hungry than the control rats of the same group.

After the third month the general average of the vegetarians falls below that of the omnivorous. This is shown in the curves of Figure 12. Here we see that the omnivorous female rapidly surpasses the omnivorous male in the amount of work done. The female vegetarian also excels the male of the same class in the distance run, but only to a small extent. The females are thus voluntarily more active than the males. We also note that the omnivorous male is much more active than either sex of the vegetarians. At the time of the death of the vegetarian rats (twenty-five months) the omnivorous female had voluntarily done almost nine and one-half times as much work as the female vegetarian, and the omnivorous male almost three and one-half times as much as the male vegetarian.

When the total amount of work voluntarily done by each class is considered, a still greater difference is observed. The omnivorous female ran a total distance of 5447 miles, while the vegetarian female ran only 492.1 miles, or a ratio of about 11 : 1. The omnivorous male ran 1588 miles, compared to 450.9 miles for the vegetarian male - a ratio of 3.5 : 1.



The average run for both sexes was, for the omnivorous rats 3517.5 miles, and for the vegetarians 471.5 miles, or a ratio of almost 7.5 : 1.

We thus see that when the initiative and ability to do work - are considered, the result is decidedly in favor of the rats that had received animal food in their diet, and overwhelmingly against the vegetarians.

Fig. 12

Curves showing the average total work and the rate it was done of each sex of the exercised omnivorous and vegetarian feeders. (OEM) is the omnivorous males, (OEF) is of the omnivorous females. (VEM) is the vegetarian males. (VEF) is the vegetarian females.

The curves of Figure 12 show in a general way the rate at which the life's work was accomplished by each rat. But to show this more clearly Table VI has been constructed. The total average work for each sex in the two groups was arbitrarily divided into eight equal parts. Then the per cent of average lifetime required to do these fractional parts was computed; also the average age in months equivalent to this per cent is given. For example, when the omnivorous male had done one-eighth of its total life's work it had lived 16.1% of its average lifetime, and had reached the average age of 4.5 months. This table shows that the males of each group turn off their work at a relatively earlier age than the females on the same diet. As an illustration, when the omnivorous male had done one-half its life work it had lived 36.4% of its life, while the omnivorous female had lived 41% of its life when it had accomplished a similar part of its total work. A similar relation is seen to exist between the two sexes of the vegetarians. We also see that the same fractional part of total work is accomplished at an earlier age in the males than in the females of the same class, with the exception of the last two items in the vegetarian group: here the male is very slightly surpassed by the female. This shows that the male ages earlier than the female. That is, when the male has begun to be inactive the female of the same age is still quite active.

We further see that the vegetarians do the bulk of their work at an earlier age than the omnivorous rats. That is, they become old, decrepit, lack energy and a desire to be active at an earlier age than is true in the, case of the omnivorous rats. This is true both as to percentage of life lived and age in months. For example, when the omnivorous rats had done seven-eighths of their total work the males had lived 67.9% of their life and the females 72.6%, the two sexes averaging 70%. In the case of the vegetarians the males had lived 51.7% and the females 66.1%, or an average for the two sexes of 59%. We thus see that the vegetarians had still an average of 41% of their lives to live, during which time they did only one-eighth of their work. The omnivorous had an average of 30% to live to do the remaining one-eighth of their total work.

We have already shown that the ratio of total average work done by the omnivorous rats as compared to that of the vegetarians was about as 7.5 : 1. To make allowance for this, Table VII was constructed. This shows the percentage of lifetime of the omnivorous rats and their age in months which was required to do certain fractional parts of the total work of the vegetarians. That is, the two groups are considered in respect to their ability to perform the same amount of work. The data of the vegetarians is therefore the same in this table as in Table VI. From this we see that the average ages in months of the two classes correspond rather closely until three-eighths of their work was done. After this the ages rapidly differ. When the vegetarian male died it was 22.8 months old. The omnivorous male had accomplished the same amount of work when it was but 6.9 months old and had lived but 22.5% of its life. The female vegetarian died at the average age of 16.9 months. In contrast, the omnivorous female had done the same amount of work at the age of 5.6 months, which was equivalent to but 16.6% of its lifetime. Or the average total amount of work of both sexes of vegetarians was performed at the average age of 19.8 months, - that is, their average lifetime. Both sexes of the omnivorous feeders had done the same work at the average age of 6.2 months, which was but 20.9% of their lifetime.

We thus have the same amount of work done by the two classes. The vegetarians required 19.8 months, or the whole of their lifetime, while the omnivorous needed only 20.9% of their lifetime, and averaged 6.2 months of age. Thus the ratio of omnivorous to the vegetarians in regard to efficiency would be 100 : 20.9, or about 5 : 1. We must not lose sight of the fact that this difference in ability to do work is caused by the presence of animal food in one diet and the absence of it in the other, this being the only difference in the environment.

If a table were made comparing the amount of work done by each class at the same average age, the difference would be more marked than just shown. It is not considered necessary to construct such a table.

GROWTH

Fig. 13

Curves representing the average growth of each sex of the four groups of rats. OCM and VCM refer to omnivorous and vegetarian control males; OCF and VCF represent omnivorous and vegetarian control females; OEM and VEM, omnivorous and vegetarian exercised males; OEF and VEF, omnivorous and vegetarian exercised females.

We have just considered what a marked effect on the efficiency of the rat these two diets had. Let us now consider the effect on growth.

The rats were weighed before feeding about once each two weeks.

Weighings made approximately a month apart were selected in making

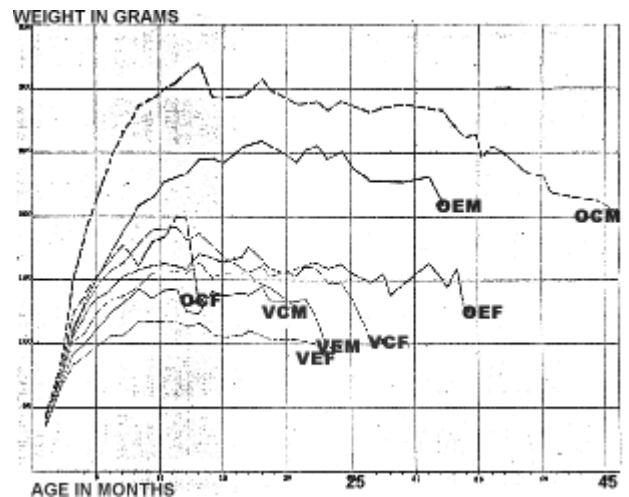


Table VIII. This shows the individual weights of each of the sixteen rats at intervals of about a month during their entire lifetime. The young at the age of thirty days thus appear to be nearly uniform in size. The advantage is slightly in favor of the vegetarians, the males averaging 42 grams and the females 39 grams, while the omnivorous male averaged 41 grams and the female 38 grams. Twenty-eight days later, when the two groups were put on the omnivorous and vegetable diets, the sexes averaged approximately the same. Eleven days later a difference in the rate of growth is already noticed. This is more obvious in Table IX, which represents the averages of each sex in the different groups. As the rats became older this difference in weight was more and more noticeable, becoming greater as age advanced.

It was previously noted (2) that the control rats surpassed the exercised ones in weight. The same is observed here in both groups of rats. This is especially noticeable in the curves of Figure 13, which represent the data of Table IX. The heavy lines are the averages of the omnivorous rats, the light lines the vegetarians. The male in each case is decidedly heavier than the female of the same group. Also the control and exercised males excel both the control and exercised females of the omnivorous group. This relation does not exist in the vegetarian. The heaviest omnivorous female exceeds the heaviest vegetarian male by 9 grams and the heaviest vegetarian female by 36 grams. The maximum weight in each of these tables is shown in bold type.

A glance at Tables VIII and IX shows that, with the exception of the exercised vegetarian female, the exercised rats reach their maximum weight at an older age than the control rats, regardless of the diet. In Table X these facts are in a more accessible form. It shows the individual weights and the age of each rat, and the average weights and ages of each sex in each group, at the beginning of the experiment, as the maximum weight, and at death. As already stated, the average weights of the young were about as uniform as could be gotten. When the maximum weights are considered a marked contrast is noted. In every case the average weight of each sex is decidedly in favor of the omnivorous rats.

Considering the exercised rats in regard to the maximum weights and weights at death, we find the following ratios:

MAXIMUM WT. AT DEATH:

Omnivorous male to vegetarian male 1.8 : 1 2.2 : 1

Omnivorous female to vegetarian female 1.42 : 1 1.36 : 1

In regard to the control rats the following ratios were found:

MAXIMUM WT. AT DEATH

Omnivorous male to vegetarian male 1.64 : 1 1.9 : 1

Omnivorous female to vegetarian female 1.22 : 1 .9 : 1

This last ratio is not reliable, as the control female had to be killed on account of sickness. There is no doubt had it been normal it would have reached a much heavier weight, since other omnivorous females did not reach their maximum weight until a much later age.

In regard to growth, we must conclude that the data is decidedly in favor of the omnivorous rats and against the vegetarians.

The appearance and attitude of the two groups is also in marked contrast. Figures 14, 15, 16 and 17 are photographs of eight of these rats, all being of the same age. Those on the left of each figure are omnivorous rats; those on the right are vegetarians. Figure 14 represents females. The other three figures are of males.

These photographs show the marked difference in appearance and attitude referred to above. The vegetarians were emaciated and skinny. Their back arched and more or less stiffened. The fur was harsh and ruffled, and the tail and nose inclined to be more or less covered with dry scale and sores. The attitude presented extreme lassitude and indifference. They remained in a crouched position most of the time, their legs appearing too weak to support their weight for only a short while. They lacked energy and would stay "put" when placed ready for photographing.

(Note: the excerpt ends here. No photographs and only a few tables have been included.)

DANGERS OF VEGAN - FRUITARIAN DIETS

OPTIMAL DIET? - 4

PROBLEMS WITH FRUIT: - Below Dr. Bass summarizes his experiences with fruit-eating. High-fruit & fruitarian diets typically can cause problems like tooth decay and loss, insulin problems, excessive sleep, in his experience. Optimal diets must limit the fruit eating, is his conclusion.

**Dr. Stanley Bass:
Fruit - Friend or Foe?**

"I had developed the habit of eating slowly, chewing all food well. Almost always I felt wonderful, and having an empty stomach most of the day allowed me to have all my energy easily available for mental and physical work. --- "He lived on nothing but grapes ... By the 32nd day, his gum was bleeding ... one of his teeth fell out of his mouth. He exclaimed: *My God, I am detoxicating my teeth.*"

MY EXPERIENCES WITH FRUIT

At the early age of 16, my interest in nutrition was sparked by a friend who remained at home, afraid to exert himself because he had been diagnosed by a doctor as having a weak heart. For four years he remained fearful of exerting himself, till one day he went to a Naturopath, who put him on an exclusive orange juice diet for 10 days. All chest discomfort vanished and the Naturopath told him he never had a heart condition, and that his chest pains were due to gas pressure in his stomach, pressing against the heart, caused by wrong food combinations.

I asked him to ask his doctor for some names of doctors who wrote on the subject.

The names received were William Howard Hay in "Health via Food", Rasmus Alsaker, and about 10 other names, which included John Henry Tilden. I began to go to the main public library in New York on 42nd Street and 5th Avenue on a regular basis, spending 3 to 5 hours looking through their marvelous book collection, with some books going back to the 1600's. I looked up every recommendation, started to collect copious notes and began to change my eating habits drastically. I tested every diet that sounded promising.

My first radical move was to go on an exclusive fresh orange juice diet for 10 days. My skin rapidly became free of all blemishes and I felt excellent. This intensified my desire for more and more knowledge. I studied the orthodox nutritionists to begin with - Henry Sherman of Columbia University, Rose, Von Bunge, the English doctors - Thompson and many others. I gave up all junk foods and ate only whole foods for about 3 years.

FASTING

Then at 19 years of age, inspired by Dr. John H. Tilden, I tried my first water fast, living exclusively on water alone which I remained on for 10 days. Needless to say, my sister who was 1 year older than me thought I had lost my mind.

We were 4 children living together in our family - our parents were deceased, my mother 3 years earlier, under the legal guardianship of our uncle, who lived separately. My sister was 20, I 19, with one brother 18 and the youngest 13. I was like a papa of our family, my sister worked daily, my sister worked part-time as a musician and we shared our meager earnings. My sister tried to dissuade me, but my insistence, backed by my faith, prevailed.

The 10 day water fast was an unforgettable experience. Since I was doing it with the only guidance from books, I was somewhat fearful at first, which I kept secret, but soon saw rapid changes in my appearance, which encouraged me to continue.

After this I became a lacto-ovo vegetarian, when I immediately received an offer to work at a hotel at a summer resort for 10 weeks. Most interesting changes occurred in me physically and mentally on this diet following the fast. I soon developed a sense of smell like a bloodhound. I could tell what diseases people had just by the radiations given off by their bodies. My psychic abilities suddenly blossomed and I frequently picked up their thoughts, without trying to. My life flowed so smoothly that I was like an expanded consciousness, emotionally very calm, hardly aware of my body, which functioned effortlessly.

After I experimented with diet changes after 2 months, adding bread and some meat to my diet, I began to notice emotional changes and desires entering my consciousness and the sudden loss of my super-sensitive sense of smell. I felt as if I had fallen from the Garden of Eden, and longed to return to this wonderful tranquility I had lost. I knew that in the years to come I would be impelled further and further onward, in an adventure as fascinating as Ulysses' travels were to him.

(Note: Read more about this fast with Q&A about water fasting - in "My first water fast".)

FRUIT DIET

Years later, as many nutritionists of that time, I fell under the spell of Arnold Ehret. His beautiful, alert expression in his photograph of his "Mucusless Diet Healing System", was very inspirational to me. He stated that all diseases were caused by mucus produced by the unnatural food eaten, and that the best and most perfect food was fruit, along with some green

leafy vegetables, and that man could reach perfection on such food alone. Thus began my experiments with "Fruitarianism".

At intervals I went on long juice programs - some 10 days, other 20 days, several times each year. At one point, after living on grapefruit juice alone for more than 2 weeks (occasionally canned and unsweetened) I noticed my gums began to bleed and swell, and when I got to about the 18th day, my teeth began to loosen in my gums. This began to alarm me, so I discontinued these juices.

Years later, while working as a musician in Ashbury Park, New Jersey, I went on a 70 day fresh orange juice diet with no other foods. I lost about 1/2 lb a day until the 20th day when my weight remained almost stationary, losing only ounces over several weeks. I chewed on about 1 dozen oranges each meal and spitting the pulp out. I craved vegetables but refused to eat them, believing in Arnold Ehret's insistence that fruit was a perfect food - the Garden of Eden diet intended for man's highest spiritual evolution.

Following this period, I later lived for 1 year on a 100% raw unfired diet of fruits, nuts and vegetables alone. My weight was maintained and I ate large amounts of fruit, feeling fine throughout. Years later, I went on another 100% raw food diet, this time for 2 years, consisting of fruits, nuts, vegetables, and 1/2 to 1 avocado almost daily. Strangely, even though I wanted to lose weight, I couldn't, even though I had been fasting on water alone for 2 1/2 consecutive days every week. After the first day of each fast, I would lose 3 to 4 lbs, and after the second day about 1 1/2 to 2 lbs. Then after 2 1/2 days when I'd eat, I'd gain all the weight back within 3 to 4 days. For weeks and months, my weight remained the same basically, even with all the fasting.

Note: at one time I fasted every other day on water alone for almost 2 1/2 years, living on mostly raw, uncooked food on eating days, and felt great throughout. I continued fasting 2 1/2 days a week, every week, and maintained this habit for over 40 years, still continuing it to this day. I looked forward to these fast days since they were my most productive days - no distractions with eating, could sleep as much as I wanted, enjoyed reading, studying and thinking even on philosophical subjects.

FRUIT AND TEETH

When I was in my late 20's, I had the good fortune to meet a Naturopath and Chiropractic doctor, a great leader and teacher in the field of Natural Hygiene, Dr. Christopher Gian-Cursio, who introduced me to a new wonderful world of balanced nutrition, which I went into deeply, with the intention of becoming a practitioner some day.

He told me about his experiences while following Arnold Ehret, which led to deficiencies in his diet. He once went on a grape cure, recommended by Johanna Brandt. He lived on nothing but grapes, cases of them for about 35 days. He ate pounds of them at each meal. By the 32nd day, his gum was bleeding, and his teeth loosened in their sockets. He said that one of his teeth fell out of his mouth. He exclaimed, "My God, I am detoxicating my teeth."

At that point he knew that something was terribly wrong with the fruit diet. It wasn't until later, when he read a booklet by a famous British nutritionist entitled "Fruit, It's Use and Misuse". He said it was the best book he ever read on fruit. I later read his book, but don't recall his name. This doctor stated that according to the theory of nutrition, fruit was alkaline in its ash effect after digestion and was good for you. But, after what he observed in many people, he came to the conclusion that the alkaline ash present after digestion was due to the fruit acids leeching out the minerals from the body to neutralize the acids in the fruit. The body was not gaining in mineral content, but was losing the minerals from the bones, teeth and body instead.

The theory was based on a faulty interpretation of what actually happened. This clearly explained what had happened to me on my citric-acid fruit-juice diet. This also explained what had happened to Dr. Cursio on his grape diet, rich in malic acid. This explained what had happened to many people who went on acid fruit diets. I remember when I was in a hotel in New York working with an orchestra, when several of my teeth had loosened up, and one abscessed tooth caused my face to swell greatly. Not wanting to quit the job, I began an immediate fast on water alone, a method I had always used in emergencies, whenever I was in pain. In a few days, the swelling and pain subsided and was completely gone by the 10th day and 2 days later I felt something in my mouth. I took it out and it was a molar tooth with a big hole through it. My body had ejected the dead tooth - first by producing an inflammation in my jawbone, followed by the loosening and discard of the dead tooth. The same thing happened to me at another time in my life when my body discarded another

dead tooth the same way. When I told the story to 2 dentists, they said they never heard of this before. When my jawbone receded from the tooth, due to the loss of minerals from the acid in the fruit, I years later lost 2 healthy teeth due to the jawbone receding off the teeth.

A surgeon dentist who was a Natural Hygienist and later became my dentist, in Rockaway Beach, Moe Leichter, told me that the worst recession of the gums and loss of teeth he saw in patients were in vegetarians and Natural Hygienists who lived mostly on fruit. He said that their teeth were ridged, soft in some, and lacking in calcium. He believed it was best to avoid heavy use of acid fruit.

Dr. Cursio eventually recommended the use of only sub-acid fruits, low in acids, like pears, golden delicious apples, and non-acid fruits like melons, is the best of the fruits. My two favorite fruits, honey dews and green Kadota figs were problematic to me. I found that the green figs in excess (over 1/2 lb), would occasionally cause my mouth and tongue to burn. After rinsing my mouth, my tongue was red, and I'd get occasional blisters on my lips. Honey dews, in I ate the whole melon, would cause my mouth and tongue to burn. When I rinsed my mouth the water was pink and sometimes bloody from the acid irritation.

I remember when I was in my teens, I would go down around Hudson Street in lower Manhattan to an animal importing house, owned by Henry Trefflech. He'd have hundred of Rhesus monkeys who were fed heavily on grain and some would develop bloody dysentery causing death in a few days. He would sell me these for \$5 and laughingly expecting them to die. I would take them home, put them on a water fast and within a few days the dysentery would stop and they'd be well. Then I'd try different diets on them to gain experience, and when they reached good health I'd sell or give them to ape shops and look for more sick monkeys. I was somewhat annoyed to see them bite into expensive figs, eat the soft sweet center and seeds, and throw away the whole outside (the acid part). They never ate the skins or unripe part of fruit. This caused me to discard anything I couldn't chew down, and kept that practice going the rest of my life.

My fruitarian diet experiences, the problems I saw with fruitarians who believed that fruit was God's gift to mankind, the dentist's years of experience, led me to live mostly on melons, especially watermelon.

I had always been a great lover of fruits, especially melons, which I ate liberally, considering it a natural food. My diet at that time had been mostly raw consisting of salads (whole and blended), large amounts of fruits, some nuts, seeds, fish, sea food and occasional chicken. I had lived on a 1 meal a day plan for more than 35 years. I ate only at night after a days work, having nothing but water at all times. I had developed the habit of eating slowly, chewing all food well.

Almost always I felt wonderful, and having an empty stomach most of the day allowed me to have all my energy easily available for mental and physical work. The only problem that resulted from living on 1 meal a day was that I wound up, after years, eating almost the amount of food in that one meal that consisted of a total of 3 moderate-sized meals in bulk. Since I always ate foods in the correct sequence (the most liquid first, and the most solid last, as well as in the right combinations), I had no difficulty digesting my meals even though the weight of that one daily meal added up to several pounds, frequently over 3 lbs. With occasional interruptions of telephone calls lasting 20 minutes or so, the time I spent eating that one daily meal added up to an average 3 to 4 hours or more at night. The largeness of the many-coursed meal provided my body with enough nutrition to satisfy all my needs for the remaining 20 hours that I ate nothing, and I was never hungry the rest of the time. By the following evening, my food was thoroughly digested, with all senses alert and a keen appetite always present.

It was a wonderful lifestyle, living with energy truly available at all times for even the most demanding mental or physical work, due to an empty, peaceful stomach. Most people, even doctors, are not aware of the fact that the greatest expenditure of energy in the body occurs in the digestion of food. Most of our energy is lost in the digestive process, so that even an extra slice of bread, eaten beyond the body's need for food, can account for 3 to 4 hours of energy used up in manual labor, such as shoveling snow. When not eating breakfast or lunch, this energy becomes available for even the most difficult and prolonged mental concentration, even exceptional sex ability, and when not used, provides a feeling of exhilaration of mind and body which lasts all day, every day, with rare exceptions. The only time I felt tired was after eating when I enjoyed relaxation or sleep.

FRUIT AND SLEEP

At one time, in studying the harmful effect of excess carbohydrates and its connection to almost all diseases, even though I had previously considered fresh fruit as a natural and healthy food, I experimented with eliminating it totally from my

diet for several weeks. I wanted to find out if the sugar in fruit could be harmful, even though fruit was rich in nutrients, calories, minerals, etc. and highly recommended by most nutritionists and doctors.

At that time I found that I felt alright if I could get at least 8 hours sleep, but then, I felt better with 9 hours, and even better with 10 hours sleep, which I attributed to my advancing age. I received a call from a herbalist who was interested in old rare Natural Hygiene books and all books on health. He visited me and we spent almost 8 hours each day for about 5 days, wherein he chose books and we negotiated prices on each. He purchased half of my library, spending thousands of dollars on these books. Having very little time left to eat, I decided to omit all fruit from my diet and live only on salads, proteins and some fat in one moderate meal. The next day he came early when I had only slept 3 hours.

Usually, if I slept less than 5 hours any night, the next day I would feel fatigued after a few hours. When driving I would get sleepy occasionally and had to be careful to not doze off and when difficult to keep awake, I would put the car to a side and rest my eyes and try to doze for even a few minutes.

I was very surprised to find that I was not tired at all, but full of energy as though I had 9 or 10 hours sleep. This continued for 5 days of book sales, even though many hours were spent daily on boring negotiations on many single books.

I stayed on this diet of no fruit at all for about 3 weeks, finding that I felt good as long as I would get at least 5 hours sleep a night on the average.

Then after the 3 weeks I decided to go back to eating fruit again to determine the difference in how I felt. As soon as I added fruit to the diet, I found that I needed a lot more a sleep that same night, sometimes as much as 12 hours if I ate a lot of fruit. I discussed this with Dr. Aajonus Vonderplanitz, a nutritionist in California, and he said that he also needed a lot more sleep after eating fruit. He gained weight quickly from fruit and any cooked food. This had been my experience. The explanation was that the sugar in fruit, even though considered "natural", retained fluid in the body just as salt did. Since sugar in excess in the blood can be considered dangerous, the body keeps it well diluted in fluid as a safety measure.

I recalled days in the past when I had eaten large amounts of watermelon in the late afternoon. That night, 8 hours later I was awakened in my sleep sometimes 8 to 10 times during this night to urinate. I began to avoid these binges due to this sleep disturbance.

FRUIT AND MODERN RESEARCH

Even so-called "natural" fruit sugar can aggravate "candida" conditions and it can be dangerous in diabetes, so we know that fruit has to be controlled in its consumption. Authorities are coming more and more to the conclusion that excess carbohydrate in the diet, sugars and starches which quickly convert to glucose are responsible for the cause of more than 80% of the most severe diseases - heart disease, blood vessel diseases, and cancer among a long list. There is no condition which is not affected adversely by an excess of sugar in the blood.

Dr. Richard Bernstein, recommended highly by Drs. Eades, was a type 1 diabetic, who was deteriorating rapidly in vision, legs were losing sensation, along with other very serious problems. He began to experiment on his diet in an attempt to create a stable blood sugar which remained in a normal range at all times, even after meals. After years he succeeded only after eliminating all fruit from his diet (appr. 25 years ago). And by limiting his consumption of vegetables (which contain only 1 gram of carbs per ounce) to 1 cup of tossed salad at the beginning of 3 meals a day, which included oil and a little vinegar or lemon. Known as perhaps the world's greatest authority on diabetes, he restricted his carbohydrates to a total of 14 grams a day of salad (or cooked starchless vegetables), stabilized his blood sugar at all times and became a super-athlete in his 60's, an anaerobic athlete comparable to the world's great athletes.

We know that even if no carbohydrates at all are eaten, the body can convert protein to carbohydrates needed by the brain and special organs (viz. - the Eskimos and some tribes that live exclusively on meat).

When I stopped eating fruit, - tomatoes, cucumbers and succulent vegetables became fruit for me, and I began to taste the sugar in vegetables. After a few weeks I rarely thought about fruit and enjoyed a life of great calmness and tranquility, free from the fluctuations in emotions and moods that consistently follow sugar and fruit lovers. Another bonus was control of weight at all times, which for me was a god-send.

In the 1990's and beyond, nutritional authorities began to write on the dangers of high sugar, and later, a high carbohydrate diet. Carlton Fredericks included natural fruit and its sugar as a culprit in hyperglycemia, then hypoglycemia. E.M. Abramson, in " Body, Mind and Sugar" spoke of the dangers of excessive glucose in the blood. William Duffy with "Sugar Blues" was another writer. Of the recent writers there were Dr. Robert Atkins, Drs. Mary and Michael Eades, Dr. Richard Bernstein, etc. All of these considered the sugar found in fruit to be a cause of the rapid rise in insulin secretion by the pancreas. When excessive it produced hyperglycemia (excessive sugar in the blood). This was soon followed by hypoglycemia (a marked lowering of the normal blood sugar).

Excessive insulin secretion to handle the excessive sugar in the blood leads to cellular insulin resistance, over-excitation of the pancreas, then the adrenal glands, the thyroid gland and a host of complications. For a full presentation of the dangers of excessive blood sugar, I recommend "Protein Power" by Michael and Mary Eades.

Dr. Cursio over the years was decreasing the amount of fruit he allowed his patients - from 12 oz at a meal, he lowered it to 8 oz. maximum.

TESTING ALL DIETS ON MICE

In 1990, after many years of reading, study and research of books written by doctors and nutritional authorities, each recommending their particular diet as the best of all, I decided that - since it could take many years to test each individual diet, and many lifetimes to test all of the diets - the best way to reach a reasonably scientific conclusion to this question was to do my own testing of all the possible diets on mice. Since 1 day for a mouse is equivalent to approximately 30 days for a human, by running several different diets on hundreds of mice, I could in a few years get the final answers on all possible diets.

I began this project testing raw vegetarian/vegan diets, cooked, lacto-vegetarian, ovo-vegetarian, lacto-ovo-vegetarian, the addition of fish, fowl, meat etc. both raw and cooked. After awhile, I tested the fruitarian diet. In a cage of 40 white mice I put all kinds of fruit. They ate some but were still hungry, so I added fresh corn-on-the-cob and avocado. All seemed well until the 3rd day, when I went to the cage, I saw 8 dead bodies with the heads missing and parts of some bodies eaten. I was shocked at the carnage. This was equivalent to severe deficiencies occurring to humans after 2 months on this type of diet. I immediately put the cage on a full diet including raw milk cheese, cooked food, grains, etc. to stop the deaths. Even with the diet change, other deaths followed for about 4 more days before it ended and conditions returned to normal.

Two years later, I repeated this diet again on this same cage, which had since recovered their health, and the same thing happened. On the 3rd day of this very liberal fruitarian diet which included corn-on-the-cob and avocados, I found 7 dead bodies cannibalized with their heads missing, I immediately stopped this "fruitarian" diet, which was the next direction of all of the 15 different diets + an additional 50 other related follow-up diets which I tested. From that time forward I have cautioned all prospective aspiring fruitarians to avoid this dangerously deficient diet, since I had proven it on living creatures close enough to man to have some relative validity.

Dr. Stanley Bass, 10-2004

For those who are interested in learning about the results of more than 100 different diets tested on hundreds of mice in a 4 year period at great expense to me, can order 2 books I wrote, entitled 1) "In Search of the Ultimate Diet", and 2) "Discovery of The Ultimate Diet" in which I tested over 100 different diets on hundreds of mice personally. S. Bass

1 fl.oz.=30 ml

OPTIMAL DIET? - 5

NEW IDEAS - OMNIVORISM: There are several reason why we now study omnivorous diets in Natural Hygiene, following Dr. Bass' lead.

One reason is that natives all around the globe were omnivores, for millennia, and were supremely healthy and good-looking, before contact with Western "civilization".

Dr. Stanley Bass: Primitive Man - His Food and His Health

"As soon as his contact with civilization is sufficient to alter his dieting habits - within one generation of the use of these foods deficient in minerals and vitamins, he succumbs to disease very readily and loses all of the unique immunity of the past."

OBSERVATIONS OF EARLY EXPLORERS

Columbus, in his "discovery" of the Western World, was the beginning spark which ignited the interest of all the leading powers. This resulted in a series of expeditions sent forth for the purpose of acquiring these valuable lands, their rich natural resources and wealth. These countries included France, England, Spain, Portugal etc., who in competition with each other, explored North America, the Northlands, Central America, then South America, eventually spreading into Africa, Asia, Australia, the Pacific Islands and the entire world. These expeditions were fully outfitted ships with supplies and crew, containing doctors to see after the health of all. Supplies for trading with the primitive Indians were in the form of white flour, white sugar, canned foods, salt, pepper, spices and other commodities which were exchanged for native furs, foods and other goods.

The accounts of early voyagers, explorers and missionaries are considered together with anthropological studies and knowledge gleaned from various nutritional surveys and medical inspections made in the primitive world. It is drawn from a literary survey of the people of many lands, including all continents and many islands. It covers centuries of time involving observations of racial groups living in the early 16th century to those of the modern day.

SHORTLIVED AND DISEASED - A MYTH?

The common view, that primitive man is generally short-lived and subject to many diseases is often held by physicians as well as layman, and the general lack of sanitation, modern treatment, surgery and drugs in the primitive world is thought to prevent maintenance of health at a high physical level. The average nutritionist feels that any race lacking access to the wide variety of foods available, which modern agriculture and transportation now permit, could not be in good health.

BEAUTY, WHITE TEETH, LONG LIFE

But the facts are known, and they indicate that, when living under near-isolated conditions, apart from civilization and without access to the foods of civilization, primitive man lives in much better physical condition and health than does the usual member of civilized society. When his own nutrition is adequate and complete, as it most often is, his teeth are white without brushing, they are formed in perfect alignment and the dental arch is broad. The face is finely formed, well-set and broad; the body development is also good, free from deformity, and desirably proportioned in beauty and symmetry. The respective members of the racial group reproduce in homogeneity from one generation to the next, with few deviations from the standard anthropological prototype.

Reproductive efficiency permits parturition (birth) with no difficulty and little or no pain. There are no prenatal deformities. Resistance to infectious disease is high, few individuals are sick, and these usually rapidly recovering. The degenerative diseases are rare, even in advanced life, some of them being completely unknown and unheard of by the primitive. Mental complaints are equally rare, and the usual state of happiness and contentment is one scarcely known by civilized man. The duration of life is long, the people being yet strong and vigorous as they pass the three score and ten mark, and living in many cases beyond a century.

These are the characteristics of the finest and healthiest primitive races living under the most ideal climatic and nutritional conditions. Even primitive races less favored by environment have better teeth and skeletal development than civilized man. We note that people living today, under the culture and environment of the Stone Age, have far surpassed civilized man in strength, physical development and immunity to disease. This fact poses an important question to modern medicine and should arouse serious thought and consideration.

CONTACT WITH CIVILIZATION - NEW DIET

The good health of the primitive has been possible only under conditions of relative isolation. As soon as his contact with civilization is sufficient to alter his dieting habits - with the introduction of refined white flour and white sugar, canned food, jams, marmalades, polished rice, etc. - within one generation of their use of these foods deficient in minerals and vitamins, he succumbs to disease very readily and loses all of the unique immunity of the past. The teeth decay; facial

forms cease to be uniform; deformities become common; reproductive efficiency is lowered; mental deficiency develops, and the duration of life is sharply lowered.

It is the nutritional habits of primitive man that are responsible for the state of his health, and as long as his native foods remain in use, as important physical changes occur, and the bacterial scourges are absent - even though a complete lack of sanitation would indicate that pathogenic bacteria might be present. When the native foods are displaced for those of modern commerce, the situation changes completely. And the finest sanitation, that the white man can provide, together with the best in medical services, is of no avail in preventing the epidemics that take thousands of lives.

" It is the nutritional habits of primitive man that are responsible for the state of his health, and as long as his native foods remain in use, the bacterial scourges are absent - even though a complete lack of sanitation would indicate that pathogenic bacteria might be present."

LESSONS TO LEARN

What is needed is the proper education of children in healthy nutrition, beginning in grade schools. And for those aspiring to become mothers education in pre-parental, parental nutrition and proper feeding of children. The direction should be in education and prevention, rather than in the treatment of disease symptoms with drugs and surgery, if we are to reverse the increasing of degenerative disease and the progressive deterioration of the human race.

CURRENT PROJECT

I am presently engaged in putting together the dietary practices of the most magnificently healthful and successful primitive races from all parts of the world - as recorded by both ancient and modern explorers of these primitive cultures, who have accumulated their knowledge over a period of many thousands of years of experience.

Stanley S. Bass, New York, 5/99

Also see

Weston A. Price, D.D.S. - The Weston A. Price Foundation <http://www.westonaprice.org/>

Nasty, Brutish and Short - The Weston A. Price Foundation

The Neglected Nutritional Research of Dr. Weston Price, DDS <http://www.sumeria.net/>

Book review - Nutrition and Physical Degeneration by Weston Price <http://www.westonaprice.org/>

What did Native Texans eat? - <http://orthopathy.net>

Interview with Dr. Bass:

Q: *What is the "Paleolithic Diet"?*

A: The Paleolithic Diet was the diet used by early man for hundreds of thousands of years preceding 10,000 years ago. It is now called the Hunter-Gatherer Diet.

It consisted of a small amount of fruit, mostly berries (in the North), leaves and vegetables, nuts, fish, poultry & meat, occasionally eggs. No grains or legumes were used until appr. 10,000 years ago, when men began to settle in cities, plant crops, grains, legumes, and raise animals for food. From a (hunter-gatherer) diet that was largely raw and based on animal products and vegetables, man changed to a (agricultural) diet that was high in carbs & sugars and cooked foods.

This began a period of degeneration, even though the food was whole, natural and of high quality. As among the ancient Egyptians who were in terrible health (mummies show obesity and diseases). Their diet was based on fresh, organic vegetables and fruits - low-fat, but high in grains.

OPTIMAL DIET? - 6

NEW IDEAS - RAW ANIMAL FOODS: An interesting piece of the puzzle. Aajonus Vonderplanitz single-handedly popularized raw animal food eating, a quite new phenomenon. He follows in the footsteps of primitive peoples like Eskimos.

But is his diet the absolute optimal? No, most likely not. Even if the diet is raw, and non-vegan - what may be missing is the understanding given by Natural Hygiene about the value of raw vegetables and blended salads, of proper fasting, of problems with honey, of the necessity of looking at total energy, and other hygienic aspects. It is also worth noting that A's failure at fasting may be due to errors in his execution, as well as him missing body parts (from mutilating surgery), and other extreme problems, therefore requiring professional assistance to water fast correctly.

EXAMPLE OF ALL-RAW PRIMITIVE DIET, WITH ANIMAL PRODUCTS

Aajonus: "Now that I consume so much raw protein and fat, I enjoy sex 1-6 hours, and maintain energy with only 5-6 hours sleep daily. I feel like I have finally achieved and chosen heaven on Earth." "After 12 years eating raw meat and never having had any more than a little diarrhea, I learned to relax and not fear raw foodborne bacteria and parasites."

What does this example have to do with Natural Hygiene you may ask. - It is a test: how open are you to new challenging ideas? Will you give them a chance to be discussed?

Why print this interview?

In 1997 I happened to see Aajonus Vonderplanitz mentioned in the M2M magazine. I then purchased and read his book (We Want To Live), and later that year I attended a seminar he was giving to doctors. He claimed having had success with 236 out of 240 cancer cases (cancer checked within 3 months time) he put on his raw animal-foods diet.

Below is an interesting interview with Aajonus Vonderplanitz conducted by Charlie Donham for the Natural Health M2M magazine in 1999, that I am happy to be able to publish here, with permission from Aajonus and M2M.

The interview is presented here for people who are interested in the possibilities of superior health using a primitive paleolithic type diet, 100% raw.

Note: some of Aajonus' ideas are different from my viewpoints and Natural Hygiene, but are challenging and should be discussed and tested. I have now been testing his raw animal-food ideas and also different improvements, on my own body and with patients, for 5 plus years (2003). I have seen some good so far, and some not so good, but need more time to make a final evaluation.

Stanley S. Bass, Jan 2000



Interview with Aajonus Vonderplanitz

I am delighted that you have agreed to do an interview with our little health journal. I think you will find the membership eager to listen to your views; however, better understanding will occur with as much verification of your points as this format will allow. If you would, start by telling us about yourself and your practice in the nutritional field, as well as something about your earlier illnesses and the road to your present standard of health. If you could elaborate on that with some data, It would be helpful.

I was born very sickly into a violent household. I had a brother who was still in diapers when I was born. He went from having had mother's full attention to having none and he never forgave me for it. He tortured me nearly daily. My father's discipline put me in the hospital several times.

My dyslexia and autism, which no one understood at the time, embarrassed and frustrated my parents. My dyslexia was to the extent that the printed page would swirl and I got vertigo. If I tried to read I would vomit. I tried holding the page down with my finger but my parents and teachers would not let me. Because I was borderline autistic and sickly I rarely played with other children.

Near my 10th birthday I developed peritonitis which was a severe intestinal infection. Doctors misdiagnosed it as appendicitis. When they discovered that my appendix was fine, they took it out anyway "in case it causes you problems in the future".

My bones were brittle, and I regularly broke bones in my limbs. I was diagnosed as borderline diabetic at 13. I developed angina pectoris muscle spasms in and around the heart by age 15½. I was diagnosed with juvenile diabetes at that age.

At 19 I developed an ulcer that turned tumorous after medical therapies. After surgery the incision turned tumorous from outer skin to stomach. It was large. Doctors ordered it irradiated. and that caused me to develop Multiple Myeloma (blood and bone cancers).

Multiple Myeloma survivors are less than 0.01%. Doctors ordered chemotherapy, which is like napalming the body, destroying mostly healthy cells to try and eliminate a few cancer cells. For every cancer cell that is killed by chemotherapy, 1 billion healthy cells are killed. That is like killing everybody on the planet because you don't like 6 people.

The chemotherapy made me a semi-invalid, and gave me psoriasis and bursitis. I refused to continue chemo after 3 months. I chose to die rather than be completely crippled for the rest of my short life. At that point I had had 7 "incurable" diseases.

A volunteer for a hospice gave me a small booklet written by a woman who cured her-self of cancer by drinking raw carrot juice. I thought that was pretty bizarre and unrealistic. But read the book anyway. I tried the carrot juice.

Within 10 days my dyslexia vanished. There I was at 22 years old never having read more than 20 pages of a book, finally able to read. I read voraciously about diets and nutrition. If I went 7-10 days without drinking the raw carrot juice dyslexia returned.

I experimented with diets, food-combining and sometimes supplements. The macrobiotic diet seemed to put my cancers in remission but exacerbated my diabetes and psoriasis.

I began experimenting with helping people who had health problems. I experienced some spectacular healing with raw foods, especially with enormous consumption of raw fat, like raw cream from cows, in combination with vegetable juices.

By my 25th birthday I was eating totally raw food vegan-fruitarian style. At 27 after 2 years eating completely raw, I had enough energy to go wild, even though I was regularly so hungry as a raw-food vegan/fruitarian that sometimes I overate until I vomited. I mounted a bicycle and peddled for 2½ years all over North America from coast to coast and from Alaska to Central America. I lived off the earth, sleeping on the ground, or in trees when it rained, and picking fruit off plants. All of the physical stress that came from traveling and living in the elements helped burn up all of the sugar from fruitarianism. Osteoporosis became apparent, but I did not then as I should have attribute it to the demineralization caused by large fruit consumption. I felt euphoric most of the time I did not realize that my extreme highs were mania created excessive fruit.

I searched for answers to complete healing. I wanted to reverse the damage done by medical therapies and not ever be bothered by any of my lingering diseases. I knew that I would not find answers in a society that postulated dictums based on theory. I wanted experience to be my teacher. I lived with somewhat primitive people learning their healing and dietary techniques. I observed healthy animals for weeks at a time.

After 2½ years my cancers resurged. Rather than fight it, I chose to die. I selected an old Native American burial ground and began fasting myself to death. After several weeks fasting I had an unusual experience with coyotes. They gave me a freshly killed wild jackrabbit. I thought it would kill me if I ate it raw. (I had been told by all of my medically and scientifically minded relatives that wild rabbits contained bacteria or virus that would kill a human.) I knew that fasting to death could take at least 60 days. I wanted to end my life more quickly, so I ate the rabbit raw. I returned to my campsite and lay down to die expecting severe stomach cramps that I was told accompanied bacterially or virally contaminated food. I felt euphoric, calm and happy. I thought that I was leaving my diseased body because I felt so good.

But I woke the next morning having had the first completely restful sleep of my life. I was nearly age 30. I began hunting. I ate rattle-snakes and birds. I worked farms for raw milk, cream, eggs and chickens. Within a few months I felt robust and strong.

I returned to Los Angeles to spread the wonderful news. Everybody thought that I had lost my mind. Over the next year my health increased by leaps and bounds because of the addition of raw meat to my raw diet. However because of misinformation about food-borne illness from bacteria and parasites I ate raw meat only two or three times a week usually fish or chicken. I always ate it with the fear that there would be a time when bacteria or parasites would sicken and kill me.

I began to jog then run. I ran up to 13 miles, did 250 pushups with my feet 2-3 feet off the ground, and 30 handstand pushups every day for 1 year. Because I had been so weak throughout my life and at this point I could do so much I felt invincible. People commented on how extraordinarily healthy I looked.

I was hired by a health food store as the nutritionist. A few people listened and tried the raw meat, fish and chicken. Their increased health was always remarkable.

I experimented with supplements. The more supplements I consumed the weaker I got. I realized within 6 months that supplements were toxic on a raw diet. Over the 2-year period I observed that most people who took megavitamin therapy developed toxic livers and glands. It showed up in their irises as well as temperaments and physical condition. But because they experienced an increase in energy, they thought it beneficial. Their highs were from toxic emergencies - the liver sending out hormones calling forth glycogen to handle the toxicity.

Supplement-toxicity is similar to coffee or cigarettes, most often producing debilitating side effects. It destroyed my desire and ability to exercise. I never returned to exercise and yet I developed and redeveloped the physique that accompanies strenuous regular exercise.

I continued eating raw meat once or twice weekly, and my health gradually increased. Whenever I experienced detoxification, healing was always a progress toward better functionality. I did not deteriorate as most people do on cooked foods or meatless raw foods. I knew I was on the right track by eating raw meat, but I could not set aside the bacteria and parasite phobias. I was especially concerned because the vagus nerve to my stomach had been severed in surgery for stomach cancer. I had no hydrochloric acid to dissolve and annihilate bacteria and parasites upon entering my body. Science and medicine put me in the category of octogenarians who they say, are in danger of death from bacterial and parasitic invasion from lack of hydrochloric acid in the stomach. I continued to eat meat anyway.

In my 35 year I misidentified a poisonous mushroom and ate it. It was the deadliest amanita mushroom, the 'death cap'. I ate enough to kill people my size. My cancers returned twice as bad as they had ever been, and it destroyed 90% of my liver. Along with severe liver-pain, extreme weight loss, and body cramps, my diabetes returned. Every book on the death cap mushroom said that death came within 10 days and it was welcomed. No one in written history had survived after eating 1/15 the amount I had. I was a semi-invalid again. I healed slowly by eating plenty of raw fat. Too slowly. After 1 1/2 years of healing I began eating meats almost daily, including beef, lamb, buffalo, seafood and organically grown fowl. Healing time doubled and diabetes vanished. But it took me 6 1/2

years to recover to a somewhat balanced state of being and my cancers to reenter remission for the third time. It took 11 years to recover to where I had been before I consumed the poisonous mushroom. But I recovered completely.

After 12 years eating raw meat and never having had any more than a little diarrhea that might have been associated with it, I learned to relax and not fear raw food-borne bacteria and parasites. It seemed to me - at that point - that all of that hullabaloo about raw food borne bacteria and parasites was superstitious like the witch hunt of old times. My research showed that the FDA's research on food-borne bacterial illness, 24-81 million cases a year, stated that over 96% were cooked and processed canned and bottled food related. Raw was getting the rap, but cooked and processed were the culprits.

I experimented and found that raw foods soured and/or spoiled with lots of bacterial activity but did not putrefy. Only cooked and processed food putrefied. Only cooked and processed foods contained lipid oxides and disease producing protein toxins. The worst that soured and spoiled raw food caused sometimes was nausea and diarrhea with occasional cramps and fever and, rarely, a little blood in the stool - whereas cooked and processed putrefied food often caused such severe poisoning that lives were lost or near death. It seems to me that science and medicine are in total denial or that they are protecting the processed food industry and restaurants.

My nutritional career unofficially began in 1969. Since I hadn't died in 1961 when doctors said I would. I thought that I had had some answers to better health. In 1969 I began advising and suggesting healing methodologies for people, especially particulars about diet. Now that I look back on my life, I wonder how I could have been so confident, even arrogant, to advise anyone with the little knowledge and experience that I had. I knew a lot about disease but little about health and healing. I seemed to have a fairly good intuition for it.

However, I adhered to certain idealistic concepts that interfered and sabotaged my intuition. I misled people into veganism and/or fruitarianism because I believed that all meat was poisonous and bad karma. I didn't realize that something had to be killed to sustain life whether animal, vegetable or fruit. That is a law of this planet. I did not realize that only cooked meats contained poisons (i.e. lipid oxides and protein toxins). In my early years as a nutritionist I helped many and hurt many. Because my help was always greater than my mishaps, I continued to counsel.

After I learned about the tremendous properties of raw fats my successes reached 60%. After I learned about the fantastic healing characteristics of eating raw meat, my successes with disease rose to 75%. After I learned the techniques for amounts and particulars that certain foods had, my successes reached 85% and better, depending upon the disease.

Occasionally there was relatively immediate healing. Most often though, healing requires time to build strength, detoxify and regenerate. The fact of healing according to Dr. F. Pottenger's work is that it takes 5 generations to achieve optimal health.

It takes approximately 10 days to replace every cell (one generation) in the blood, 2 1/2 years to replace one generation (every cell) of glands. Approximately 4 1/2 years to replace one generation of arteries, approximately 5 years to replace one generation of intestines and tendons, approximately 6 years to replace one generation of cartilage, and approximately 7 1/2 years to replace one generation of bone. Therefore, to achieve one's optimal health in a particular body part, it takes 5 generations: that is 7 weeks for the blood, 2 years for glands, 22 1/2 years for the arteries, 25 years for intestines and tendons, 30 years for cartilage, and 37 1/2 years for bone. Usually, healing enough to stop disturbing pain can be achieved during the first generation of healing.

Many of our members are Natural Hygienists and have chosen to eat a vegetarian (vegan and raw primarily) diet. Many fast on occasion to allow their body to eliminate the toxic condition from daily stress. How do you view this practice of fasting and what experiences or data could you share with us on these views?

I have completed approximately 75 fasts from 1969-1981 of various lengths -- many 1-day-a-week fasts, several 5-day, 10-day and 15-day fasts. One 31-day fast and one 41-day fast. During 60% of them I drank water only with no cheating ever. During 40% I drank all or some of my urine and a little water.

During the 41-day fast I drank all of my urine and a little water. Each one, including 1-day fasts was difficult. The easier of the long-term fasts was the 41-day drinking urine because of the nutrients in the urine. Urine is the blood with most of the red blood cells removed and a little ammonium added by the kidneys. During the 41-day fast (I should call it a urine feast) I lost the least amount of weight and energy, had the fewest headaches and had better disposition but my breath was atrocious all of the time.

The 31-day fast on water only I did at age 27. It took me 2 1/2 years to regain my equilibrium. The last intellectually motivated fast I did at age 33 - the 41-day urine fast. It took me 1 1/2 years to regain my strength.

I found that fasting longer than 3 days was impossible without daily enemas to dilute the toxins in the bowels. Enemas destroyed the bacteria that is the major constituent of feces but so did the toxicity from fasting. I had constant headaches, depression, anxiety and nausea without enemas.

I stopped fasting when I realized that the side effects of forced-fasting were greater than the benefits. The benefit of ketosis, cellular cannibalism, which usually occurs within 12 hours of fasting is that it reduces the overpopulation of sluggish cells, leaving the stronger cells and those that overproduce prostaglandins. This is a process of mass genocide via cannibalism. The deleterious effects are that blood maintains a higher acid ratio weakening and damaging red blood cells and their ability to transport oxygen.

If fasting continues beyond 2 days severe blood-fat deficiency occurs. The body leeches fats from the lymph system and cells to maintain it. This fat-leeching weakens the immune system.

Another deleterious effect of fasting is that the necessary bacteria level in the intestines diminishes. Since 60-90% of fecal matter is born of bacteria, constipation results and severely diminishes bacterial synthesis of B vitamins and amino acids. This further weakens and diminishes the immune system.

Another side effect from fasts, resulting from blood-fat and lymph deficiencies is that many toxins from either industrial pollution or natural by-products of metabolism are freed. They irritate, burn and often imbed in the stronger cells, therefore weakening them. Fat, especially in lymph, usually binds with toxins and either neutralizes or escorts them out of the body through the mucus membranes, skin or bowels. If great collections of these toxins occur during fasting, kidney damage results. These side-effects usually create edema, especially when eating is resumed. The body often tries to dilute the toxins when it does not have enough fat to chelate and remove them. Mutations some-times result.

My conclusion after 13 years experience and research with intellectually motivated fasts is that fasts are often more deleterious than helpful. They may have their place, but I won't gamble with people's lives using fasts as therapy.

When certain situations are favorable and if an individual has no appetite, I may suggest that they fast until hungry. However, if the individual is anorexic, I do not suggest that they fast.

I have replaced fasts with a formula of raw vegetable juices (rarely fruit juices) and raw eggs. This supplies the nutrients to form solvents to remove toxicity and the fats necessary to eliminate them from the body. It is not as dramatic an experience, but it works well, and more people are able to do it and still function.

You say that fasting weakens the immune system, but Shelton and others noticed just the opposite - that colds/flu/infections in progress would cease within a few days of starting a fast, and that new ones would never occur.

Concluding that because colds and flus often cease during fasts does not mean that health is improved. It has been my experience that colds and flus and all other diseases are detoxification. I have experienced and observed that colds and flus often ceased during fasts because the body could no longer tolerate such major detoxification. Some detoxification continued to occur during fasts, however it was mainly the tremendous toxicity from the body cannibalism (acidosis). Weaker cells are consumed to feed healthier cells. Fasts force the survival-of-the-fittest reality as in most starved species. This in consequence creates a somewhat healthier body because it eliminates so many weaker and decaying cells.

In most circumstances, because the body usually requires much time and nutrients, especially fats and proteins, to detoxify and recover from fasts and because most people do not eat diets that provide proper nutrients, people lack the nutrients necessary to ideally enter regular major detoxification like colds and flus. Especially in our toxic environment bodies need major detoxification regularly.

It is also known that the starving prisoners of nazi death camps were less susceptible to typhoid than their "well-fed" guards. This, if anything, indicates a strengthened not weakened, immune system. How do you explain things like this?

I do not attribute increased immunity of typhoid to starving. The high consumption of alcohol and drugs among guards seems to have contributed to the greater susceptibility to typhoid. Starving prisoners died of typhoid.

Your book was very informative about the role of raw animal fats, meat, and eggs for the proper nutritional fuel for our bodies. Would you please tell us what you feel is a proper level of raw animal products in our diet, and how you reached this conclusion?

For each individual the proper ratio of raw animal products may vary. Experience has shown me that over time raw animal products produce the calmest, most balanced human nature with excellent mental clarity.

For the last few years my raw animal products consumption has been approximately 80% by volume of my diet. I restrict high fructose fruit to one a day and almost always eat it with a high fat food such as unsalted raw cheese, raw butter, raw cream, raw milk, raw egg(s), avocado and/or raw coconut.

As an example of the extreme, the Eskimo ate 99% raw animal products and lived free of degenerative disease before white men introduced cooking cauldrons, breads and refined sugar to them. By several accounts of world travelers and explorers they considered the Eskimo the happiest of all races.

Their first case of dental decay was 50 years after cauldrons, breads and refined sugar were introduced. The dental caries only existed among those who ate some or all of white man's food. Cancer never occurred among primitive Eskimo.

I resisted a predominantly animal products diet for fear I would feel dull and sluggish because of the low enzyme and mineral content of feed given to farm animals. When I finally attempted it I felt dull and sluggish.

As a vitamin, enzyme and mineral supplement I introduced 1 quart a day of raw vegetable juice divided into 5 or 6 portions, often adding 1 ounce raw cream, raw milk or raw coconut cream to each portion, or ate a small amount of unsalted raw cheese. The juice perfectly balanced me and prevented the craving for high fructose fruit that resulted from eating animal products.

I avoid the high fructose fruit consumption because it causes manic thought and lack of regular clarity. I eat from 3/4 - 3 lbs of meat almost daily (that is, red meat and/or seafood and/or fowl).

What objective test measurements have you made on yourself before and since starting this raw flesh diet? Do you monitor any bio-markers like pulse rate, blood pressure, body temperature, various blood parameters? If so, what are they? Have you had a bone scan for osteoporosis? If so, with what result?

While I was a raw-food fruitarian/vegan my pulse rate averaged 62, blood pressure averaged 107/70, and body temperature 96.8 deg. I was frequently manic, easily tired or exhausted and quick to be outraged. As a raw-flesh eater my pulse averages 70, blood pressure 127/80 and body temperature 97.7 deg F.

I rarely experience mania or lethargy, easily remain calm, and have at least five times more energy and clarity.

I have not had a bone scan. However, my bones do not easily break as they did when I was a child. I have had several situations where if I had had osteoporosis I would have broken bones but did not. In one situation where had a severe bicycle accident I broke seven bones in my foot. Six hours later after a 14-year old girl set the bones in my foot I walked 3 miles. The next day I bicycled 12 miles. I was completely painless in 2 weeks. My bones healed 3 times faster than the average person. Such skeletal healing does not occur if osteoporosis exists.

One of the effects of eating the raw animal products, I have noticed, is an increased sex drive (without Viagra). You don't mention this specifically in your book (if so, I missed it), however there are several references to the high level of sex that you and your clients enjoy. What are your findings in this area and do you regard sexual energy as a health indicator? While Hygiene does not frown on sex, they do caution that over activity in this area is very enervating and to be avoided. What are your views about what is over activity and its possible harmful effects?

I cherish all enjoyments of embodiment. My greatest pleasure is sexual sensuality. - It is the highest measure of bodily euphoria, the best feeling. - It is a balance for the routines of society that often lack pleasure. - When I was under stress, which is rare for my state of excellent health now, it released tension.

When I was a vegan/fruitarian, ejaculatory orgasm was pleasurable but draining. I got depressed, anxious and irritable if had regular ejaculations. I have always had a high level of sex hormones and have always since age 3 craved orgasm. My sexual appetite did not change on any diet that I tried. On a raw vegan/fruitarian diet I became more sexually frustrated.

Now that I consume so much raw protein and fat, I enjoy sex 1-6 hours, have up to 3 ejaculations, and maintain energy with only 5-6 hours sleep daily. I feel like I have finally achieved and chosen heaven on Earth.

Regarding sexual energy as a health indicator seems erroneous. Some people simply do not have active sex glands and have little sex hormones. resulting in low sex drive. However, they can be incredibly healthy.

In your book, you stated that you have not engaged in any form of physical exercise (excluding sex of course) for the last seven years and have been able to stay in excellent condition. How do you explain this apparent contradiction from the accepted present view that stressing the muscles is a requirement to maintaining good physical conditioning?

When people don't eat enough stable and/or digestible protein they lack proteins to maintain all tissue, including muscle. I have found that raw nuts, seeds and germinated grains and nuts do not provide most people with stable protein for properly building and maintaining well-formed tissue. When most people eat cooked protein they consume lipid oxides and protein toxins causing unstable nutrients for building or maintaining all tissues unless they exercise. When they stop exercising muscles most often dissipate readily and easily.

The seven-year statement was in the context of 1986. It has been 19 years as of April 1998 that I have not engaged in any form of physical exercise except roller-skating once a month and regular sex.

Because I consume raw proteins and fat in the form of 1-3 pounds of meat (seafood, red meat and fowl) daily, my body stays naturally muscular and fit. Most animals, if fed their fresh, raw natural diets maintain excellent tone without exercise.

You state in your book that it is best to eat fruit with raw fats, so the fruit sugar will not be so rapidly absorbed into our systems. What do you think about high fruit diets?

High fructose diets destabilize mineral levels causing osteoporosis, including tooth decay and periodontitis. The only way to counter this is with tremendous exercise or emotional stress that burns up the sugars as quickly as possible. As I mentioned above, high fructose diets as well as my high carbo-hydrate diet cause blood sugar problems resulting in manic thinking and/or behavior, extreme fatigue or tiredness, irritability, impatience and in some people frequent or uninterrupted depression.

You recommend the use of stone pressed oils (heated below 96 deg F) in our diets. You state that they should not be eaten with vegetables, as in a salad. Please explain the benefits of the oils and why the mixture with vegetables is harmful?

Cold-pressed-below-96 deg F oils mainly provide solvents for detoxification. - They may also be made into any fats as fuel, lubrication and chelation, but not much. - These oils are chiefly cleansers.

The combination of vegetables (leaves, stalks and roots) and cold pressed oils is most often inadvisable. Vegetation in the human digestive tract is mainly undigested. It would take at least one more stomach, 2 1/2 times more length of digestive tract and 60,000 times more of the enzymes that disassemble cellulose to derive much protein and fat from vegetables. If you put cold-pressed oil, without being premixed with raw vinegar, on vegetables the oil coats the vegetables and further reduces the digestibility of the vegetables.

You describe enzyme mutations in your book. Could you explain this process our members and its relevance to health the SAD diet?

In order for the body to handle the altered chemicals and compounds in cooked food the body must create enzymes that will utilize them to the best of its ability. Because these enzymes are very different from those naturally made from and for the utilization of raw food, I call them enzyme mutations. If the body cannot make the enzyme mutations to utilize adulterated nutrients caused by cooking, allergies will develop as more of the non-utilizable chemicals and compounds collect in the body.

You stated that raw fats and meats taken from natural sources are essential to excellent health. You mention this as a new food group. What exactly are you including in this group, and what levels of daily consumption do you recommend?

Actually, the writer of the Foreword to Volume 2 of my book called it another food group. He did this to stress that the healthy effects of eating raw fats and meats are so different from the poisonous effects of eating cooked fats and meats.

Meats and fats that are cooked produce extreme toxicity, whereas meats and fats that are raw produce no toxic effects. Everyone should completely disregard all knowledge of cooked fats and meats when considering them raw.

For example, science and medicine separate HDL and LDL cholesterol, calling one good and the other bad. When fats are raw, both HDL and LDL cholesterol are good, and a high cholesterol level is beneficial. It reveals that, along with the fresh raw fats that will lubricate, strengthen, fuel and cleanse, toxic cholesterol from cooked and stored fats is being removed from the body to be eliminated.

Do you include nuts and seeds, and what levels of these do you think are sufficient?

They are not easy to digest for most people. I suggest that people eat them only when they have a craving for them. Usually people who eat meat do not crave nuts and seeds. Also Dr. Strueyer of the Costner excavations determined that as Native Americans began eating nuts and seeds they developed osteoporosis.

You stated earlier that Eskimos were very healthy, and now you say nuts/seeds cause osteoporosis. Yet it is also known that meat and dairy products are big promoters of osteoporosis and that Eskimos lived rather short life-spans and had brittle bones. Could you comment on osteoporosis as regards to flesh and dairy consumption?

According to Vilhjalmur Stefansson in his book "Cancer: Disease Of Civilization? - Chapter 14, The Longevity Of Primitive Eskimos", there was only one community of Eskimo reported to have had a short life-span. This report seems to have been used to propagandize that Eskimo lived short lives. In all other reports primitive Eskimo lived lives as long as we do, a few reached age 100 years. Eskimos who ate their normal animal diet enjoyed bones and teeth that were so strong they were able to chew on bones during evening congregations. Osteoporosis only occurred in Eskimo who ate white man's refined foods.

As I stated earlier, Native Americans developed osteoporosis when they consumed more nuts and grains according to Dr. Stuart Strueyer. It seems that Native Americans were not able to assimilate the starch in nuts and grains, forming Advanced Glycation End-products (AGE's), that is, glycotoxins.

Pasteurized dairy is known to cause osteoporosis. In Medical Doctor William Campbell Douglass' book "The Milk Book", he supplies many scientific reports that show raw milk causes strong bones free of osteoporosis. Dr. Francis Pottenger, M.D. demonstrated in his work with 900 cats over a decade that raw dairy and raw meat built strong bones without the consumption of bone.

My experience with others has repeatedly confirmed that osteoporosis reversed by eating raw meat and raw milk. According to Vilhjalmur Stefansson in his book "Not By Bread Alone - Chapter 4: "The Laboratory Check," no osteoporosis can be associated with eating an exclusively animal and water diet, even when some meat was cooked.

After I received irradiation and chemotherapies, my cases of periodontal and carries degeneration became extreme. My teeth moved loosely, and my gums bled from the slightest touch even while eating. I was advised to have all my teeth removed. I refused, and instead I began consuming large quantities of raw milk. Within months my conditions improved considerably and continued to improve for almost two years.

But then I became a raw fruitarian/vegan. and within two years after becoming a fruitarian/vegan my teeth again began to decay. I thought it was a passing detoxification but it lasted 4 years. When I began eating raw dairy again and raw meat, decay subsided.

After I ate the poisonous mushroom, periodontal and carries degeneration resumed. Abscesses were near constant. Pain was chronic, lasting for sometimes a month at a time. Three wisdom teeth and one molar rotted and self-extracted in my mouth within 1 1/2 years. That is when I began to eat raw meat on a daily basis. This controlled the pain to a large degree.

Now, 17 years later, I have many opened cavities which have sealed themselves. I have no false teeth in my mouth and am missing only one molar. Four of seven crowns remain in my mouth from 1978. My teeth are so firmly connected to the strong jaw bones that I have only experienced pain during detoxes once every 2-3 years, lasting no more than 3 days. Even though my teeth are in poor appearance, they are strong.

Eating such high levels of raw animal foods will elevate the body's cholesterol numbers compared to a vegetarian diet. How do you explain this contradiction to prevailing views on the need to keep cholesterol numbers low? Also, what level of cholesterol do you look for in your clients?

I have experienced that cholesterol levels should be ignored. I have found that it doesn't matter what the cholesterol level is if the cholesterol is taken or made from raw fats. Cooked fats are the problem because they are cauterized and can no longer exchange ions properly if at all. Therefore they eventually, in 20-50 years, dry and crack. If the fat were a part of an artery the artery would dry and crack. Raw fats continue to exchange ions no matter how long they are in the body, remaining much more fluid.

You speak of cholesterol values not being significant for raw fooders. Are you aware that Paavo Airola died of a stroke in his 60's, presumably from all the raw dairy in his diet? How do you explain this?

Although I have read some of his books, I know nothing about Paavo Airola's personal diet. I don't know his heart condition before he became a predominantly raw fooder. I do not know the extent of his cooked fat intake.

According to the immense research of W C Douglass MD, a high raw fat diet does not cause any heart conditions especially regarding the consumption of raw milk.

I was confused by all of the same assumptive theories - that is why I rejected most and found my own results.

Relating to my personal experience I point out that I had angina from age 15. I have not suffered angina since I added flesh to my diet. More than 90% of my clients who had high cholesterol levels for years on cooked diets lowered their cholesterol levels to normal within 6 months on a raw diet, that included tremendous amounts of raw fat and meat.

Evidence has shown me that the presumption that raw dairy was responsible for Airola's death is likely to be false.

Do you think any raw meat is ok, including supermarket quality? If not, where do you get high quality meat? What about the concentration of environmental pesticides in animal flesh and fats?

From laboratory analysis that I arranged with a technician on feces from raw meat eaters who ate supermarket quality red meat, tests showed that the same concentrations of toxins that were found in the fat of the meat passed out in the feces with the fat molecules relatively unchanged. These tests were done 9 years ago. I do not know if these same results could occur with present-day concentrations of chemicals and processed animal meals being fed to animals. I eat antibiotic-free and hormone-free red meat whenever I can, usually Coleman meat that I purchase at health food stores. When traveling to some locations I eat supermarket red meat. I have not had any ill reaction to supermarket red meat. I eat tremendous amounts of raw fat to bind with toxins and eliminate them from the body: that is one of the major functions of fats in our polluted society. I only eat poultry that is raised antibiotic free and free range. I do not eat farmed fish.

Are avocados a good source of fat? If nut/seed fat is inferior to animal fat, why is this so? The only thing you cite is osteoporosis, but that applies equally well, if not more so, to meat and dairy.

Avocados are an excellent source of fat: however, when I tried using avocado to stabilize dental conditions, I rarely received the beneficial results that I do with animal fat. I experienced that in most people avocado is utilized for hormonal fluids and functions, and for detoxification.

I have not done any laboratory testing on why nut and seed fats rarely lubricate and stabilize the human body. I concluded from others research that the main problem was the result of improper starch utilization forming glycotoxins. I have experienced that nut and seed fats are mainly utilized for detoxification such as in the making of body solvents.

Animal fat stabilizes or soothes the tissues readily and easily in most cases. Again, I have only seen evidence that raw meat and raw dairy reverse osteoporosis, not cause it.

You state that parasites are a myth

The parasite myth is that they are pathogenic always. It has been my experience that parasites are able to eat and digest tremendous quantities of decaying tissue in short periods: that is a detoxification process. When an individual has parasites, s/he is afforded the quickest process of detoxification. However, unless s/he eats enough and assimilates enough protein to regenerate cells and replace the tissue, s/he is more likely to have ulcers that may fester and kill her/him. I have found that with the consumption of raw meats that provide the nutrients necessary for quick regeneration parasites are beneficial. By the use of antibiotics, strains of bacteria and viruses have developed that are immune to all known antibiotics. Medical science has discovered that bacteria and viruses can mutate, becoming immune to existing antibiotics. This is creating a very weak race. Basically, medical science creates a weak human race that will be highly susceptible to advanced bacteria and viruses. This could likely result in a plague that would make any previous plague look minor, resulting in an extinction level event.

... yet one of our former raw food M2M'ers who eats meat, Zephyr, did in fact poison himself with trichinosis parasites from eating wild raw mongoose. How do you explain this?

I do not know Zephyr. I do not have knowledge of his situation, however, I heard of this and investigated the likely occurrence of trichinosis from mongoose. I could not find research or facts linking trichinosis to mongoose.

I found one individual who said that mongoose have one or more sacs their necks that contain fluid that can be poisonous to most animals, including humans. It is possible that Zephyr ate one or more of these sacs, poisoned some of his intestinal walls and developed his own case of trichinosis to detoxify the decaying tissue that resulted from the poisoning. Trichinosis usually takes at least several days to gestate before any ill symptoms are detectable. Zephyr could have had an existent ill condition that required trichinosis for quick detoxification, and his trichinosis had nothing to do with eating the mongoose. If Zephyr had maintained a raw meat diet, his trichinosis would probably have passed without any severe scarring. If he had a serious allergy to the mongoose's sacular fluid, his chances of recovery may have been impaired.

These are all hypotheses: I do not have direct knowledge of Zephyr and his condition.

I hear that other Instinctos in Hawaii have experienced parasitic infections too.

Again, I experienced that parasites are beneficial when an individual consumes a raw diet that includes raw animal products, especially raw meats. An analogy is the present-day use of young maggots to clean and heal festering wounds in a matter of 3 to 5 days. That impresses me.

Under your food-as-remedy section of your book, you mention that mineral deficiency is improved by using a little sun dried clay mixed in mineral water. Other authorities state that using inorganic minerals will not aid in the body's healing process. Please explain your point of view and how you came to these conclusions?

Clay is like a food, especially when moist, and therefore the minerals are not inorganic. The body can utilize the minerals fairly well. However, as I state in my book, fresh raw vegetable juices provide the best, although in some cases incomplete, mineral concentrations. Cheese is also a concentrated source of organic minerals. My conclusions are always based on consistent good results and research.

You list many illnesses in your book, along with diets to supply needed nutrient: to allow the body to heal itself. NH recommends only that a healthy diet be followed, nothing specific to the illness. Would you please share your views with us on the use of specific foods for specific illnesses?

When I was a raw food vegan/fruitarian eating mainly mono-meals. I often observed certain effects from particular foods. I simply logged the effects and experimented with certain diseases and particular foods.

You also state in your book that distilled water is not to be used because it will rob the body of minerals. What do you base this conclusion upon, actual experiments or other sources that you could share with us?

I don't remember any negative literature on the subject. I drank distilled water for nearly two years, 1969-70. My skin became edemic, thinner, and psoriasis increased.

In the 80's I experimented feeding distilled water to animals. Over the equivalent 2-year period of their lives, they developed slight osteoporosis, fragile tissue and general edema. After placing one suffering group on raw milk and another on regular mineral water, both groups reversed the osteoporosis, thinning skin and edema. The raw milk group reversed it in 1/3 the time that the other group experienced.

That sounds like an interesting experiment. Have you written up the results and published the raw data anywhere?

I tried to publish many of my experiments over the years. Continually, I was refused for lack of appropriate academic credentials, proper laboratory environments, and because my findings and conclusions were too contradictory.

People everywhere, especially in the press, are literally afraid to risk health. Recently, I was asked to write an article entitled "Health or Disease: Do We have a Choice?" for Hispanos magazine by an editor whom I have known for many years. After 3 days' work I submitted it. The editor-in-chief refused to publish it because of its controversial content.

You are a big proponent of unheated honey and unheated bee pollen. Can you tell us how you came to believe so strongly in these two foods?

I first learned about it from a military medical doctor in Central America who observed that wounds healed 3-5 times faster if unheated honey was applied to wounds. I experimented. both topically and internally with human and non-human animals and proved the same results. I noticed that the health of the digestive tract and generally all tissues improved considerably in most cases when considerable amounts of unheated honey were consumed.

Food combining is a hot issue within the Natural Hygiene organization. What are your views on proper food combinations?

I have observed that people on vegan or fruitarian diets lack proteins. As this condition persists, the intestinal tract's ability to develop and produce enzymes diminishes. Over a period of years, especially after child-hood, fewer food combinations are tolerated because

of the lack of certain enzymes. On a raw diet that is high in meat enzymes are easily produced and most any combination is digestible, except combining vegetation and meats, including vegetable juice, because they neutralize the acid fluid and bacteria that digest meat.

You tell the story of the feeding and recovery of your son Jeff in the first part of the book. This is an effective vehicle for introducing us to you and your views, as well as to the opposing medical power that we all have to face. How is your son doing, and is he still following the diet you used while he was healing from the accident?

His auto accident occurred in September 1986. The book takes the story to only April 1987. Jeff recovered from that accident completely by August 1987 against every prognosis by a team of neuro-specialists. He continues to live in Cincinnati where he experiences much criticism from eating raw meat. Consequently, he falls under pressure and eats a raw diet only when he gets fatigued or depressed. When he visits me he voluntarily eats 99% raw and always feels better.

Can you cite any scientific documentation to back up any of your nonstandard dietary claims?

The works of Dr. Max Gerson, Dr. Lars Erick Essen of Sweden's Vita Nova Clinic, Dr. Carl Otto Aly, Dr. Gordon Latto, Dr. Phillip Kusby, Professor Hans Eppinger from Vienna, H. Glatzel of Germany, Dr. Bircher Brenner of Zurich, Dr. William C. Douglass and Dr. Vilhjalmur Stefansson.

Have you been satisfied with the public reception to your book?

I am impressed. My publisher basically had an advertising budget of \$5,000 that was spent in a matter of weeks. The book is selling well simply by word of mouth. Another publisher has asked to publish a paperback edition but nothing has been negotiated.

Do you have any plans to write another?

I am presently working on a recipe book and a pedagogue for my nutritional courses. The recipe book was scheduled for completion December 31, 1998, but I have been involved in politics surrounding the ban of fresh raw dairy in California and Los Angeles. I formed the organization Right to Choose Healthy Food that will combat any legislation banning people's right to chose raw food. The legal research and letters campaign is time consuming. Right now the process involves gathering signatures for petitions and letters to the Los Angeles Board of Supervisors, the Governor and the Los Angeles Medical Milk Commission, and donations. We are researching and developing a class action law suit against the state and county governments and possibly the federal government for banning interstate transportation of raw dairy. If you would give your readers our petition and letter we would appreciate it. This is not simply about banning raw dairy, it is about the banning of raw juices such as Odwalla's apple juice that is always pasteurized now. Also, there's the probability that all fresh foods will be required to be irradiated with toxic radioactive material. The M.D.'s who control health departments on federal, state, county and city levels are so germ phobic that they are systematically trying to ban all raw food. We could use your help to stop them.

What sorts of projects or plans do you have for the future?

Several individuals are interested in clinical tests using my Native diet, and others are simply interested in clinics using my Native diet. Those are viable possibilities.

Another project is utilizing fresh raw herbs and their juices with my diet to speed and facilitate.

I am working on a book with more info on my nutritional research to aid the classes that I give to therapists, such as the one Stanley Bass attended. And I have ceased these classes until my pedagogue is finished.

Where do you see yourself 5 years from now?

Providing that society survives the Y2K problems, I see myself writing and directing movie's with plots based on alternative therapies. Allopathic medicine has dominated the media: I would like to see more than a modicum toward alternatives.

May we include your address and phone number in case our members have any questions for you?

I require that people read my book before I speak with them - most questions are answered in the book. If your question(s) are not answered in the book, contact me at: Aajonus Vonderplanitz, <http://www.primaldiet.com>

The interview was made by:

The M2M magazine

The magazine is discontinued, but many of the members now continue their discussions at www.naturalhygienesociety.org (free membership)

OPTIMAL DIET? - 7

HOW MUCH PROTEIN? - Our bodies need some protein every day for repair of wear & tear, and for building new muscle. Vegetarians may want to make certain they get enough proteins for tissue-repair. Raw animal food eaters may ask - how much protein is too much? Minimal eaters want to know - how much is the minimal? The calculations by Dr. Shelton below - 1g protein/kg body-weight - still hold up well, there may only have been a slight reduction in later years.

Herbert M. Shelton: How Much Protein?

Ever since it was decided that protein is the most important and most essential part of our food, there has raged a controversy over how much protein a day is required to meet the needs of man. At first, the efforts to determine the amount of protein needed were made by merely striking an average of the amount of protein actually eaten by certain groups of men, who are now known to have been gluttonous eaters. Next, an effort was made to determine the amount of protein needed by experiments on dogs. Imagine, trying to discover the protein needs of man by making tests on dogs!

"Liebig conceived the idea that albumens and proteins are needed in direct proportion to a man's or woman's activity."

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More than seventy years ago Liebig conceived the idea that albumens and proteins are needed in direct proportion to a man's or woman's activity. He thought that the human body is run on the substances of which its muscles and viscera are composed. Of this notion, Drinkwater says: "If muscles are worn away by exercise of their normal function, according to the old view, it would be like a locomotive having to have its wheels and machinery renewed at the end of each journey, instead of needing simply water and fuel." (Food in Health and Disease, London, 1906.)

Following Liebig, Voight declared in 1881 that man requires twenty percent of his daily diet to be protein. A little later Atwater made it twenty-five percent, and Moleschott and Veirordt made it twenty percent. Voight experimented upon dogs in his effort to determine the protein requirements of man.

These standards demanded for the adult, who has ceased growing, 7% to 12% more protein (more tissue building material) than nature herself provides for an infant which doubles its weight in six months and trebles its weight in a year. Not until Lahmann in 1892 appreciated this discrepancy and set about to determine the proportions of protein, carbohydrate, fat and salts in mother's milk, and used this information as a basis for calculation for adult diets, was a really decisive blow struck at the old school of dietetics.

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.58 g/kg per day - 1920's

After carefully surveying all previous estimates and after conscientious experimentation of his own, Berg came to the conclusion that the adult body's need of protein should be calculated on a basis of .58 grammes per kilogramme of body weight (Vitamins). Berg concluded that "a supply equivalent to 1 gramme of protein per kilogramme of body-weight, when a mixed diet is taken . . . provides a margin of safety of from 50 to 100 percent."

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100 g - 1934

Nixon, who is no vegetarian and has no bias in favor of vegetarianism, writing in January 1934 said that 100 grams of protein daily (i.e., 3.527 ounces or nearly 1/4 lb.) is average requirement for physical and mental activity and for fertility, 50 grams of which should be "first class protein" by which he means meat, eggs, cheese, including fish. This is the amount of protein he regards as sufficient for a young man in his prime when reproductive powers are at their zenith.

This means that one-half the young adult's daily protein consumption should be high grade proteins.

Vegetarians would use as proteins of high biologic value - nuts, peanuts, avocados, soy beans, bananas, and green vegetables.

In my own work, I have watched hundreds of men, women and children make steady (often rapid) gains in weight and strength following lengthy fasts, while consuming less than half the protein daily that is supposed to be required. I have reared children and supervised the rearing of many more on a diet containing far less protein than the prevailing standards call for and the healthiest and finest developed children I have seen have been these very children. My feeding program conforms closely to the standard established by the Swiss experiment, an account of which follows.

Some recent experiments made in Switzerland should go far to settle a long-sought-for solution to the problem of how much protein is required daily for an individual. Unlike most experiments that have been made in an effort to solve this problem, this experiment was made on human beings and on large numbers of them. If its conclusions do not agree with the findings of the rat-pen dietitians, this will merely be hard on the boys in the rat-pens.

1 g/kg per day - 1968

The British Association for the Advancement of Science was addressed at its regular meeting about two years ago by a Swiss speaker, Prof. A. Fleisch. He told the assembled scientists that experiments carried out with scientific thoroughness on 4,000,000 people in Switzerland showed that the amounts of calories, proteins and fats formerly considered essential in civilized countries were utterly unnecessary. He asserted, on the basis of these experiments, that the United Nations minimum standard of 2,400 calories a day is too much and that 2,160 is sufficient for all except heavy manual workers. The conclusion reached through their experiments is that one gramme of protein per kilo (0.035 oz. per 2 1/4 lb.) of body weight is correct. Before the war the protein requirements were supposed to be 100 grammes (3 1/2 oz.). This amount he asserted, was not only unnecessary, but was actually harmful. He said that a large part of the meat and eggs eaten before the war and a large part of the refined fats, sugar and white bread and macaroni could have been replaced by vegetables, fruits and darker bread,

Finally, he said that today, when great nations of the world are suffering from hunger, it is absolute waste to convert large quantities of wheat into eggs, thus losing 90 percent of the nutritive value of the wheat, and to convert tremendous amounts of maize (corn) and barley into fodder (food for cows) and thus lose 75 percent of the calories and proteins. This is a direct stab at our traditional but nonetheless foolish agriculture which first raises huge quantities of food for animals, feeds it to the animals, and then feeds man a small percentage of the food value thus converted into animal foods.

It will seem amazing to most of my readers that only about one-half the amount of protein considered necessary before the war is needed daily by the individual for health and strength. The old high protein standards thus go glimmering through the things that were. No doubt the packers and the poultry men will not like this and a great howl will go up from the rat pens. The radio touts who look after the interests of the meat packing industry will shout themselves hoarse denying the validity of these tests made on men and women instead of rats. Nonetheless, there is but one way to determine the nutritive requirements of man. In dealing with the young, the requirements of a rapidly growing animal and those of an animal of slow growth are very different.

"Greater sobriety in the matter of protein ingestion is essential, not only to achieve a return to health, but also in order to maintain health at its highest peak."

While the efforts of most investigators seem to have been directed to ascertaining minimum protein requirements, it may be debatable as to whether or not this can establish a valid standard for protein intake. It is quite clear, however, that greater sobriety in the matter of nitrogen (protein) ingestion is essential not only to achieve a return to health, but also in order to maintain health at its highest peak at all times and for all purposes. Reinheimer truly says that "nitrogen, the chief ingredient of protein, is universally a good servant, but a bad master." It is well known to physiologists that both fat and protein metabolism depend upon carbohydrate metabolism. There is a delicate balance between carbohydrates and proteins, to which we have to conform - disease and degeneration resulting from failure to conform.

It has been shown that excess nitrogen is detrimental to the capacity for work, while very generally, it is the accumulation of a nitrogen product, kinotoxin, in the muscles that is the cause of fatigue. Men are poisoned by excessive protein ingestion. More than any other food factor, excesses of protein foods fill the body with toxins. Indeed, the whole system becomes overcharged with poisonous products of protein metabolism, which the eliminative functions eventually fail to cope with. The calamitous moribundity of a body poisoned by unsuitable and excessive protein is similar to the case of alimentary anaphylaxis.

In middle aged adults, perfectly normal kidneys are the exception rather than the rule. By a careful selection of a low nitrogen diet, it is possible to reduce the amount of work required of the kidneys to a level at which they are able to keep the waste products in the blood within normal limits.

We can say, without fear of successful contradiction, that a disproportionately increased amount of protein in the diet, due to the arbitrary addition to the diet of foods rich in protein, such as flesh, eggs, cheese, etc., proves harmful, as a continual excess of protein results in severe disturbances of health. Yet these are the very foods that the advocates of much "high-grade" protein place greatest stress upon. An excess of protein thus provided, (this improperly prepared and wrongly combined), is the source of much trouble.

Herbert M. Shelton

Superior Nutrition, Chapter VIII

Published by Dr. Shelton's Health School, San Antonio, 1970

(Note: 1 ounce = 28.47 g, 1 lb = 0.45 kg)

OPTIMAL DIET? - 8

NEW IDEAS - THE INSULIN MECHANISM: - Here is another big part of the diet puzzle - new understanding of how diets high in carbohydrates and sugars influence our blood sugar and thereby our body glands and hormones. Drs. Eades were probably the first to elegantly connect data from anthropology and archaeology with this new nutritional understanding.

This mechanism may explain why it can be so hard to become optimally healthy on vegetarian diets. These are often far too high in carbohydrates, and thereby energy-wasting.

Drs. Eades have part of the puzzle, but may be missing the Natural Hygiene knowledge of raw diets, blended salads, minimal eating, energy thinking, etc.

The High Carbohydrate Diet and Related Health Problems

Eades: "Modern nutritional wisdom would predict that the diet of the ancient Egyptians should have brought health, fitness and longevity... --- ... a people afflicted with rotten teeth and severe atherosclerosis, suffering from elevated blood pressure and dying in their thirties with heart attacks." "An anthropologist examining skeletal remains of early man can tell immediately whether the bones and teeth belonged to a hunter-gatherer (mainly protein eater) or a farmer (mainly carbohydrate eater)..."

EXCESS INSULIN AND OUR MODERN DIET

The following condensation of a chapter called "Excess Insulin And The Insulin Resistance Syndrome" is from a book entitled "**Protein Power**" by Michael R. Eades, M.D., and Mary D. Eades, M.D. (Bantam Books, 1996, also in paperback.) It explains briefly and in a simple clear manner some of the many problems and complications which arise from our modern diet, which is excessive in carbohydrates (starches and sugars) in relation to proteins and fats. See their website <http://eatprotein.com>.

With their permission, I quote the following condensation of this chapter, Stanley S. Bass

Michael & Mary Eades: Excerpts from Protein Power



THE BOTTOM LINE

"Insulin and its counterbalancing partner, glucagon, are the master hormones controlling human metabolism. The word insulin may immediately call up a mental association with diabetes, and the connection is a valid one. Controlling blood sugar is definitely insulin's most important job in the human body.

Many people especially those with heart disease, diabetes, high blood pressure, elevated cholesterol, or obesity in their families - have inherited a tendency for, the insulin sensors on the cells to malfunction with age, illness, stress, or assault by years of high sugar and starch consumption. As these sensors become sluggish, the condition of insulin resistance develops. Because it's crucial to get the sugar out of the blood and into the cells, the pancreas will compensate by making more and more insulin to force the sluggish sensors to respond. Thus begins a vicious cycle of requiring ever more insulin to keep the system going. Finally, some people become so resistant to insulin that the amount necessary to make the sensors respond and clear the sugar' from the blood is more than their pancreas can make; that person becomes an adult diabetic.

Excess insulin stimulates a wide variety of other metabolic systems: it encourages the kidneys to retain salt and fluid; it stimulates the production of cholesterol by the liver; it fuels an increase in triglyceride production; it thickens the muscular portion of the artery walls, increasing the risk for high blood pressure; and it sends a strong message to the fat cells to store incoming sugar and fat.

Insulin's actions are countered by the second metabolic hormone, glucagon. Glucagon sends signals to the kidneys to release excess salt and fluid, to the liver to slow down the production of cholesterol and triglycerides, to the artery wall to relax and drop blood pressure, and to the fat cells to release stored fat to be burned for energy. When insulin levels in the blood are high, however, they so overwhelm system that they suppress glucagon's actions.

Since food is what mainly controls the production of these two hormones, we have been able to create a nutritional structure that maximizes the release of glucagon and minimizes the release of insulin, creating a closer balance between these two hormones. Under these conditions the actions of the glucagon predominate, allowing the metabolism to heal and the malfunctioning sensors to regain their sensitivity. Once this healing occurs, the metabolic disturbances that insulin resistance caused improve or disappear. If elevated, your cholesterol and triglycerides return to normal, your blood pressure returns to normal, blood sugar stabilizes and you can effectively lose excess stored body fat.

All these benefits accrue not by treating the symptoms - the blood pressure, cholesterol problem, overweight, or diabetes - but the root cause, chronically elevated insulin and insulin resistance. There are no medications yet to treat this disorder - the right diet is the only remedy, but it works extremely well."

CURSE OF THE MUMMIES

I found the chapter "Curse of the Mummies" to be particularly fascinating.

It deals with a period of almost 3000 years (from 2500 B.C. to A.D. 395), wherein the ancient Egyptian civilization flourished largely as an agricultural society, where the Nile River kept the land fertile and rich. The following is a quote from and a condensation/summary of this chapter by Drs. Eades:

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CURSE OF THE MUMMIES

"The papyrus records tell us that the early Egyptians sat down to dine on a diet consisting primarily of bread, cereals, fresh fruit and vegetables, some fish and poultry, almost no red meat, olive oil instead of lard, and goat's milk for drinking and to make into cheese - a veritable nutritionist's nirvana. Except for papyrus, the Egyptians could have obtained their entire diet from the shelves of any health food store in America.

With such a bounty available, rich in all the foods believed to promote health and almost devoid of saturated fat and cholesterol, it would seem that the ancient Egyptians should have lived forever or at least should have lived long, health lives and died of old age in their beds. But did they? Let's look at the archaeological evidence...."

The Bottom Line

"Modern nutritional wisdom would predict that the diet of the ancient Egyptians - high in complex carbohydrates, low in fat, no refined sugar, almost no red meat - should have brought health, fitness and longevity to the Egyptians of old. But, it didn't.

Translations of the ancient Egyptian papyrus writings and modern examination of their mummified remains by pathologists tell us quite a different tale. The evidence speaks of a people afflicted with rotten teeth and severe atherosclerosis, suffering from elevated blood pressure and dying in their thirties with heart attacks. And contrary to the paintings of the willowy svelte figures in pleated linen that adorned their tombed walls, the large skin folds of the mummies tell us that their ancient low-fat, high-carbohydrate diet left them obese as well.

The Egyptians are not the only people whose health suffered because of a diet consisting mainly of complex carbohydrates. An anthropologist examining skeletal remains of early man can tell immediately whether the bones and teeth belonged to a hunter-gatherer (mainly protein eater) or a farmer (mainly carbohydrate eater) simply by their condition. The hunters grew tall, with strong, well-formed bones and sound teeth, and the remains of the farmers usually show skeletal signs of malnutrition, stunted growth, and tooth decay.

For 700,000 years humans ate a diet of mainly meat, fat, nuts, and berries. Eight thousand years ago we learned to farm, and as our consumption of grains increased, our health declined. Genetic evolutionary changes take a minimum of 1,000 generations - or another 8,000 to 10 000 years to adapt.

Our metabolic machinery was designed to cope with an unpredictable food supply. We had to store food away for the lean times ahead. The hormone insulin did this for us. Unfortunately a diet heavy in carbohydrates also sends our insulin levels soaring and our body interprets this as a need to store calories, to make cholesterol, and to conserve water - all important to our survival way back then.

Some of us inherit this conservation ability - a thrifty gene - in great measure. People who have this trait gain weight easily and have a more difficult time losing their excess and the current nutritional low-fat, high carbohydrate prescription leads to overweight and weight-related health problems even more quickly among them."

I highly recommend the study of Drs. Eades "Protein Power" as well as their follow-up book, "The Protein Power Lifeplan" (Warner Books, copyright 2000) for a clear presentation of the problems associated with a high carbohydrate diet, which leads to an excessive excretion of insulin and its resulting problems, which may account for more than 75% of our modern diseases and infirmities.
Stanley S. Bass, New York 5/2000

CONTINUATION

With their permission, I here quote from "The Protein Power Lifeplan" by Michael R. Eades, M.D., and Mary D. Eades, M.D.
<http://eatprotein.com>
Stanley S. Bass, New York 10/2000

Excerpts from The Protein Power Lifeplan by Drs. Michael & Mary Eades

THE TRUTH MAY SURPRISE YOU

" The authors who defied conventional wisdom, turned the food pyramid upside down, and helped to vastly improve personal health continue to break the rules...

A New York Times bestseller for over a year, Protein Power sparked provocative debate with its assertion that our mainly carbohydrate-based diet - and not one rich in protein - is responsible for rampant obesity and heart disease among Americans. Now the authors of this exciting guide expand both their theory and their nutritional program, and show how The Protein Power LifePlan can combat diabetes, high blood pressure, auto-immune disorder, and more.

Good health is in our birthright. Contrary to popular belief, our bodies were designed by nature to metabolize and thrive on protein and fat, and simply weren't built to handle today's typical diet of carbohydrates and processed foods. The authors have linked the rise in disease to our increasing reliance on the low-fat, high-carbohydrate diet that first appeared at the dinner table relatively late in human history. The keys to good health can be found by understanding how we evolved, and by eating a diet typical of our ancestors', rich in protein and good fats and full of fruits and vegetables for the antioxidant and cancer-fighting abilities."

ANTHROPOLOGICAL DATA

"Anthropologists have known for decades that the health of humanity took a turn for the worse when our ancestors abandoned their hunter-gatherer means of subsistence in favor of the farm somewhere between eight-thousand and ten-thousand years ago. The fossil record leaves little doubt that compared to their farming successors, the hunters were more robust, had greater bone density, decreased infant mortality, a longer life span, a lower incidence of infectious diseases and iron-deficiency anemia, fewer enamel defects, and little or no tooth decay.

Humans have followed a Paleolithic diet for a few million years and a "modern" agricultural diet for only a few thousand years. The not too gentle forces of natural selection have spent millennia shaping and molding our evolving line, weeding out those offshoots and mutations that didn't thrive on the available fare, reinforcing those traits that improved our survival, until we emerged as modern humans some one-hundred-thousand years or so ago. Since our modern form and physiology today is the same as that of these one-hundred-thousand-year-old ancestors, it stands to reason that we should function best on the diet they—and we, their descendants—were designed to eat, not necessarily the "prudent" diet recommended by modern nutritionists, which is often composed primarily of foods that weren't even in existence for the vast majority of our time on earth. It is by turning to the vast amount of anthropological data that we can determine what our ancestors ate for the three to four million years that we have been recognizable as humans.

IN A WORD: MEAT

In anthropological research if you follow the trail of meat consumption, you'll find the history of our earliest ancestors, because there is no real debate among anthropologists about early man's history as a meat eater and his evolution into a skilled hunter; the only debate is about when this hunting ability became fully developed.

Upon the discovery of the first fossils of our earliest upright ancestors anthropologists postulated that these creatures, the australopithecines, and those that followed until the advent of agriculture was "bloodthirsty, savage" hunters. As archeologists developed more technologically sophisticated means of analyzing their collections of bones and tools,

thinking drifted from the idea of early man as hunter to that of early man as scavenger. Gone was the notion of groups of skilled hunters stalking, bringing down, and butchering large herbivores; in its place was the vision of groups of hominids coming upon the kills of large carnivores and stripping the remaining bits of flesh from the carcasses and using primitive tools to pummel and break into the cavities of the long bones and skulls to get at the marrow and brains within. The mainstream archeological and anthropological view posits that this scavenging lifestyle predominated until the last one-hundred-thousand years or so, coinciding with the arrival on the scene of anatomically modern humans. But, thanks to recent findings, this view is changing—and changing in almost flashback fashion to the ideas of the earlier anthropologists. Our ancestors from a long, long way back indeed appear to have been skilled hunters.

New excavations in Boxgrove, England, and Atapuerca, Spain, reveal that hominids as far back as five-hundred-thousand or more years ago were exquisitely skilled hunters. Archeologists at Boxgrove found evidence of numerous kill and/or butcher sites of extinct horses, rhinoceroses, bear, giant deer, and red deer—all large mammals requiring a great deal of skill and fortitude to bring down with primitive implements. Researchers know these animals were hunted and not just found and scavenged, not only because of the arrangement of bones at the butcher site, but through microscopic evidence as well. When analyzed under a microscope, the bones of scavenged carcasses typically show the cut marks from the tools of the scavengers lying over the tooth marks of the carnivores that actually made the kill, indicating that the scavenging came later. At Boxwood, archeologists found just the opposite. The cut marks from the flint tools on the bones show evidence that tendons and ligaments were severed to remove muscles from the bones. The cut marks compare to those produced by today's butchers using modern tools. In the words of Michael Pitts and Mark Roberts, two of the primary excavators at Boxgrove, "every animal for which there is any evidence of interference by the hominids has been carefully, almost delicately, butchered for the express purpose of consuming the meat."

Further evidence of hunting comes from several actual wooden spears found throughout Europe that have proven to be the oldest wooden objects of known use found anywhere in the world. Archeologists have dated an almost sixteen-inch-long spear tip carved of yew wood found in 1911 in Clacton, England, to be somewhere between 360,000 and 420,000 years old. Another spear, also made of yew, that is almost eight feet long and dated to 120,000 years old was found amid the ribs of an extinct elephant in Lehringen, Germany, in 1948. A few years ago excavators in a coal mine near Schöninger, Germany, found three spruce wood spears shaped like modern javelins, the longest of which measured over seven feet, that proved to be 300,000 to 400,000 years old. And at one of the butcher sites at Boxgrove, excavators actually found a fossilized horse scapula that shows what appears to be a spear wound.

The excavation at Boxgrove provided archeologists with another surprise. It had long been thought that such stone tools as arrowheads and hand axes, once fashioned, were carried around by their makers and used as needed, much as we do today with modern hunting knives and other camp tools. Researchers who have practiced making prehistoric tools and arrowheads from flint—flint knapping, as it's called—found the task tedious, difficult, and fraught with the constant risk that one wrong strike could destroy the tool in the making. As a result, the thinking was that the effort put into making quality stone tools was so great that the makers would surely value them and keep them as long as they could. Amazingly, it appears from the meticulous examination of these ancient sites that these hominid hunters were so adept at making flint tools for butchery that they knocked them off on the spot, used them to skillfully dismember their prey, and left them at the site rather than carry them around. And these weren't just crude flint chips; these were some of the finest flint hand axes ever found. Modern attempts to reproduce the quality of these tools have usually fallen far short of the mark. Obviously these ancient hominids were skilled enough to whip out a flawlessly made butchering tool at a moment's notice, a fact that implies a lifetime of hunting, butchering, and meat consumption.

We know from these European sites that hominids were actively hunting and eating meat as far back as five-hundred-thousand years ago, but what about before that? The earliest stone tools date to around 2.6 million years ago and have been found in association with extinct animals' bones from the same period. Some of these have cut marks with overlying carnivore teeth marks, indicating hunting, while others have carnivore teeth marks with overlying cut marks, implying scavenging. The most probable conclusion is that protohumans back at least 2.6 million years ago—a time corresponding to the appearance of the genus *Homo*—were engaged in the consumption of meat by either scavenging or hunting activities and probably a combination of the two.

Prior to 2.6 million years ago the human line was represented by australopithecines, which have been believed to be primarily fleshy fruit eaters. So, it was thought, the human line developed the taste for meat sometime between the plant-eating australopithecines and the appearance of *Homo*, but even that time frame has now been pushed back.

Anthropologists Matt Sponheimer and Julia Lee-Thorp from Rutgers University and the University of Cape Town, respectively, performed an ingenious analysis on the remains of four three-million-year-old *Australopithecus africanus* specimens found in a cave in South Africa. Bones of this age are always fossilized, thus preventing researchers from extracting living material from them for analysis, but not so for the tooth enamel; tooth enamel persists relatively unchanged through the millennia and lends itself to testing for organic content. Whatever is incorporated into the developing enamel stays there—in this case for three million years. By testing for variations in the carbon atoms making up the tooth enamel researchers can determine what the owner of the tooth ate because different food sources contain specific carbon isotopes. When Sponheimer and Lee-Thorp analyzed the australopithecine enamel for the content of Carbon-13, a heavy isotope typically found in grasses and in the flesh of grass-eating animals, they found plentiful amounts, indicating that these hominids ate either a fair amount of grass or grass-eating animals or both. Analysis of the surfaces of the teeth, however, didn't show the specific scratches that are the telltale signs of grass eaters, leading the researchers to conclude that australopithecines at least as far back as three million years ate meat.

We have evidence tracking back three million years for meat eating by our ancestors and at least a five-hundred-thousand-year history of skillful hunting. In terms of generations this means that we modern humans are the result of one-hundred-fifty-thousand generations of meat eating, twenty-five-thousand generations of skilled hunting, but only a mere four-hundred to five-hundred generations of agriculture. Since geneticists calculate that it takes at least two-thousand generations for even minimal changes to be manifest, it should be apparent that eons of meat eating forged our physiology and metabolism to respond optimally on a diet containing significant amounts of meat. A low-fat, high-carbohydrate diet, the real fad diet in evolutionary terms, limits the consumption of the meat we were designed by nature to eat and replaces it with starchy foods that our bodies haven't had the time to adapt to. It's no wonder the low-fat diet wasn't what it was cracked up to be. It's far too new for our bodies to know what to do with.

BRAIN FOOD

Not only was meat a principal source of nutrition for developing man, it actually was the driving force allowing us to develop our large brains. For years anthropologists argued that we humans got our large brains because we had to develop them to learn hunting strategies to capture and kill game much larger, faster, and meaner than ourselves. Anthropologists Leslie Aiello and Peter Wheeler turned that idea on its head in a brilliant paper postulating that we were able to develop our large brains not to learn to hunt but because the fruits of our hunting—nutrient-dense meat—allowed us to decrease the size of our digestive tracts. The more nutrient dense the food, the less digestion it needs to extract the nutrients, and consequently the smaller the digestive tract required. (The human digestive tract, while longer than true carnivores, is the shortest of any of the primates.)

Is meat really that nutritionally dense? Let's take a look at a few examples of meat compared to plant foods and see. First, let's look at protein. Protein is the only true essential macronutrient. Fat is also essential, but you can go a lot longer without fat than you can without protein. (Carbohydrates, the third macronutrient, are totally unessential to human health.) So, if you are trying to get protein you could eat 8 ounces of elk meat, a small amount by Paleolithic standards, and get about 65 grams of it. Or you could eat almost 13 heads of lettuce to get the same amount. Or 56 bananas or 261 apples or even 33 slices of bread. If you're trying to get methionine, an essential amino acid that the body uses to make glutathione, its major antioxidant, you could eat the same 8 ounces of elk, or you could eat any of the following: 22 heads of lettuce, 127 bananas, 550 apples, or 46 slices of bread. In almost any nutrient category you want to look at, meat is going to come out a winner because of its incredible nutritional richness that doesn't require much digestive activity to get to. "

BUT WHAT IF I'M A VEGETARIAN?

" A larger percentage of our patients than you might imagine are vegetarian to some degree. With some modifications, the Protein Power LifePlan works fine for vegetarians, but before we start patients on the vegetarian version we always inquire as to their rationale for following such a diet. If they are vegetarians because they believe it a more healthy way to eat, we disabuse them of that notion quickly. If, on the other hand, they are vegetarians for ideological reasons, we have no quarrel with that and we help them modify our program to solve their health problems within the limits of their ideology. We do, however, encourage them to read a fascinating little book entitled *The Covenant of the Wild* that goes a long way toward removing many of the inhibitions that some people have about using animals for food. "

THE BOTTOM LINE

"The overwhelming mass of scientific evidence supports the notion that for most of our time on earth, humans and their pre-human ancestors have eaten meat. By all reputable scientific accounts, we've been hunting and gathering (with heavy

reliance on the hunting) for the better part of three million years. Eons of natural selection and human development molded our metabolic machinery to succeed on this ancient dietary scheme that appears to have included about 65 percent foods of animal origin and about 35 percent foods of plant origin. Only about ten thousand years ago (at most) did we settle down to cultivate grains and begin to include them as food in our diets. The metabolic changes necessary for humans to adapt to this dietary change—in short, to be able to use these "new" foods well—would reasonably take a few thousand generations (or about forty thousand or fifty thousand years). We're simply not there yet—and won't be anytime soon.

Turning to the use of grains allowed humans to settle in large cooperative groups necessary to build great civilizations, but at a price to the individual members of the group. While we can subsist on grain-based diets, we don't as a species thrive on them; the fossil record shows that after the adoption of agriculture human health, stature, and longevity went into sharp decline. In the last century in the Western world, thanks to a general increase in dietary protein, we've begun to recover our stature, but because of our continued heavy reliance on cereal grains, metabolic health still lags. We're riddled as a society with epidemics of diabetes, high blood pressure, heart disease, and obesity, all of which we inherited when our ancient ancestors abandoned their successful hunting-and-gathering lifestyle in favor of the addictive lure of grains (components of which indeed do stimulate the narcotic centers of the human brain).

In our medical/nutritional practice, we care for people with all components of this epidemic of modern diseases. To restore their health, we advocate a return to the basic nutritional principles of our ancestral hunting-gathering lifestyle by prescribing a diet of nutrient-dense foods—meat, fish, and poultry, rich in protein and good-quality essential fats; fruits, berries, and vegetables, rich in antioxidants and cancer-fighting substances—and limiting what early humans never knew existed—grains, refined sugars, and other concentrated starches."

by Drs. Michael & Mary Eades

Note: More information at <http://eatprotein.com>.

A longer excerpt of the same parts from Drs. Eades' book that also has been published in M2M The Natural Health Many-To-Many can be found at: http://www.omega23.com/at_the_top_of_our_lists/pro_power.html

"Eons of natural selection and human development molded our metabolic machinery to succeed on this ancient dietary scheme that appears to have included about 65 percent foods of animal origin and about 35 percent foods of plant origin."

Interview with Dr. Bass:

Q: How can vegetarian natural hygienists use this information?

A: For example by eating no more fruit (sugary foods) than the equivalent of a large apple a day (12 - 16 oz/day), and reduce grains, potatoes, rice (starchy foods) to one meal every other day, or preferably no more than 15 grams of carbohydrate a day. Also increase the green leafy and non-starchy vegetables, increase the proteins (raw sprouts, nuts, eggs etc.), and increase the fats in the form of e.g. avocados, nuts, (desalted) olives and coconuts.

See for example my "Discovery of the Ultimate (Vegetarian) Diet" for sample menus of the "ultimate vegetarian diet", consistent with these recommendations.

OPTIMAL DIET? - 9

NEW IDEAS - MORE ABOUT INSULIN: Dr. Rosedale adds to Drs. Eades by bringing up the damaging effects of fats from grain-fed animals, and other aspects. He also recommends small fish, eaten whole, e.g. sardines. A main point: which is our biggest poison? Insulin! If correct, perhaps watching sugars (& carbohydrates) will be of major importance in preventive health care of the future.

But still we need to combine this knowledge with all the other puzzle pieces we get from Natural Hygiene. Without understanding raw foods, minimal eating, energy saving measures, fasting, etc we will not reach the optimal in preventive medicine and natural healing.

Why Eat Less Carbohydrates?

Rosedale: "The actual rate of aging can be modulated by insulin... We should be living to be 130, 140 years old routinely." "What is the minimum daily requirement for carbohydrates? ZERO." ".Those high complex carbohydrate diets are nothing but high sugar diets, and your body is just going to store it as saturated fat." "Animal proteins are fine and are good for you, but not the ones that are fed grains." "Your primary fuel should be coming from fat."

The re-discovery of the tremendous improvements which occur in ALL health problems with the use of a diet which is reduced in the use of carbohydrates, is one of the most notable of recent years.

The following article indicates the importance of carbohydrates/sugar as a factor of disease. The author makes many bold statements, for example: "Insulin is by far your biggest poison" , "You can consider saturated fat to be second generation carbohydrates" , "Medicine really isn't a science, it is a business"

Dr. Bass may republish articles by the natural hygienist Arnold DeVries from the 1950's about the carbohydrate-problem. Why? Because the problem with carbohydrates, raw and cooked, needs to be discussed in today's Natural Hygiene.

How is the following article different from Natural Hygiene? E.g. there is no mention of the importance of raw foods, sequential eating and other energy-saving measures for lifespan/health increases - except for the mentioning of minimal (low-calorie) diets.

But note this quote: "...don't do anything, go home and sleep, let your body heal itself." Interesting - it looks like a few medical doctors now have moved relatively close to the hygienic standpoint on healing.

Below is a selection of long quotes to give a quick overview. Find the full article at drbass.com/rosedale2.html. The article was copied from www.mercola.com, and can also be found other places on the web.

Stanley S. Bass, Aug. 2002

Ron Rosedale: Insulin and Its Metabolic Effects

Let's talk about a couple of case histories. These are actual patients that I've seen; let's start with patient A. This patient who we will just call patient A saw me one afternoon and said that he had literally just signed himself out of the hospital "AMA," or against medical advice. Like in the movies, he had ripped out his IV's.

The next day he was scheduled to have his second by-pass surgery. He had been told that if he did not follow through with this by-pass surgery, within two weeks he would be dead.

..... To make a long story short, this gentleman right now is on no insulin. I first saw him three and a half years ago. He plays golf four or five times a week. He is on no medications whatsoever, he has no chest pain, and he has not had any surgery. He started an organization called "Heart Support of America" to educated people that there are alternatives to by-pass surgery that have nothing to do with surgery or medication.

"They have known since the fifties that if you restrict calories but maintain nutrition animals can live between thirty and two-hundred percent longer."

..... And the common therapies for osteoporosis are drugs, and the common therapy for calaudication is surgery. For cancer reduction there is nothing. But all of these have a common cause.

The same cause as three major avenues of research in aging. One is called caloric restriction. There are thousands of studies done since the fifties on caloric restriction. They restrict calories of laboratory animals.

They have known since the fifties that if you restrict calories but maintain a high level of nutrition, called "C.R.O.N.'s:" Caloric restriction with optimal nutrition, or adequate nutrition, which would be CRAN"S, these animals can live anywhere between thirty and two-hundred percent longer depending on the species.

"Then there are Centenarian studies. ... They all have low triglycerides for their age. And they all have relatively low insulin."

Then there are Centenarian studies. There are three major centenarian studies going on around the world. They are trying to find the variable that would confer longevity among these people. Why do centenarians become centenarians? Why are they so lucky? Is it because they have low cholesterol, exercise a lot, live a healthy, clean life?

Well the longest recorded known person who has ever lived, Jean Calumet of France who died last year at 122 years, smoked all of her life and drank.

What they are finding on these major centenarian studies is that there is hardly anything in common among them. They have high cholesterol and low cholesterol, some exercise and some don't, some smoke, some don't. Some are nasty as can be and some nice and calm and nice. Some are ornery, but they all low sugar, relatively for their age. They all have low triglycerides for their age.

And they all have relatively low insulin. Insulin is the common denominator in everything I've just talked about. They way to treat cardiovascular disease and the way I treated my stepfather, the way I treated the high risk cancer patient, and osteoporosis, high blood pressure, the way to treat virtually all the so-called chronic diseases of aging is to treat insulin itself.

"Life span is strictly a variable depending on the environment. ... We know now that the variability in life span is regulated by insulin."

The other major avenue of research in aging has to do with genetic studies of so-called lower organisms. We know the genetics involved. We've got the entire genes mapped out of several species now, of yeast and worms. We think of life span as being fixed, sort of.

Humans kind of have an average life span of seventy-six, and the maximum life-span was this French lady at one-hundred and twenty-two. In humans we feel it is relatively fixed, but in lower forms of life it is very plastic. Life span is strictly a variable depending on the environment. They can live two weeks, two years, or sometimes twenty years depending on what they want themselves to do, which depends very much on the environment.

If there is a lot of food around they are going to reproduce quickly and die quickly, if not they will just bide their time until conditions are better. We know now that the variability in life span is regulated by insulin.

..... If there is a single marker for lifespan, as they are finding in the centenarian studies, it is insulin, specifically, insulin sensitivity.

How sensitive are your cells to insulin. When they are not sensitive, the insulin levels go up. Who has heard of the term insulin resistance?

"We know now that aging is a disease all the so-called chronic diseases of aging are symptoms."

Insulin resistance is the basis of all of the chronic diseases of aging, because the disease itself is actually aging. We know now that aging is a disease. The other case studies that I mentioned, cardiovascular disease, osteoporosis, obesity, diabetes, cancer, all the so-called chronic diseases of aging, auto-immune diseases, those are symptoms.

..... Now, the medical profession is continuously segregating more and more symptoms into diseases, they call the symptoms diseases. It is the same thing with cholesterol.

If you have high cholesterol it is called hypercholesterolemia. Hypercholesterolemia has become the code for the disease when it is only the symptom. So they treat that symptom and what are they doing to the heart? Messing it up.

"... the problem is that medicine really isn't a science, it is a business"

So what you have to do if you are going to treat any disease is you need to get to the root of the disease. If you keep pulling a dandelion out by it's leaves, you are not going to get very far. But the problem is that we don't know what the root is, or we haven't.

They know what it is in many other areas of science, but the problem is that medicine really isn't a science, it is a business, but I don't want to get in to that, we can talk hours on that. But if you really look at the root of what is causing it, we can use that cold as a further example.

"The patient might see someone else more knowledgeable who will say no, you caught a virus, don't do anything, go home and sleep, let your body heal itself. That's better."

Why does that person have a cold? If he saw the doctor, the doctor might tell him to take an antibiotic along with the decongestant. You see this all the time because the doctor wants to get rid of the patient. Well we all know that in almost all cases of an upper respiratory infection it is a virus, and the antibiotic is going to do worse than nothing because it is going to kill the bacterial flora in the gut and impair the immune system, making the immune system worse.

The patient might see someone else more knowledgeable who will say no, you caught a virus, don't do anything, go home and sleep, let your body heal itself. That's better. You might see someone else who would ask why you caught a virus without being out there trying to hunt for viruses with a net.

We are breathing viruses every day; right now we are breathing viruses, cold viruses, rhinoviruses.

"We've known for many years that sugar depresses the immune system. ... It doesn't matter what disease you are talking about - insulin is going to have its hand in it, if not totally controlling it. "

..... We've known for many years that sugar depresses the immune system. We have known that for decades. A blood sugar value of 120 reduces the phagocytic index seventy-five percent.

Here we are getting a little bit further down into the roots of disease. It doesn't matter what disease you are talking about, whether you are talking about a common cold or about cardiovascular disease, or osteoporosis or cancer, the root is always going to be at the molecular and cellular level, and I will tell you that insulin is going to have its hand in it, if not totally controlling it.

..... What is the purpose of insulin in humans? If you ask your doctor, they will say that it's to lower blood sugar and I will tell you right now, that is a trivial side effect. Insulin's evolutionary purpose, among others at least known right now, we are looking at others, is to store excess nutrients.

".... those high complex carbohydrate diets are nothing but a high sugar diet, and your body is just going to store it as saturated fat."

We come from a time of feast and famine and if we couldn't store the excess energy during times of feasting, we would all not be here, because we all have had ancestors that encountered famine. So we are only here because our ancestors were able to store nutrients, and they were able to store nutrients because they were able to elevate their insulin in response to any elevation in energy that the organism encountered.

When your body notices that the sugar is elevated, it is a sign that you've got more than you need right now, you are not burning it so it is accumulating in your blood. So insulin will be released to take that sugar and store it. How does it store it? Saturated fat, ninety-eight percent of which is palmitic acid.

So the idea of the medical profession to go on a high complex carbohydrate, low saturated-fat diet is an absolute oxymoron, because those high complex carbohydrate diets are nothing but a high glucose diet, or a high sugar diet, and your body is just going to store it as saturated fat. The body makes it into saturated fat quite readily.

".... heart attacks are two to three times more likely to happen after a high carbohydrate meal."

..... Insulin also causes the retention of sodium, which causes the retention of fluid, which causes high blood pressure and fluid retention: congestive heart failure.

..... What does all of this do to the heart? Not very good things. There was a study done a couple of years ago, a good, down to earth nicely conducted study that showed that heart attacks are two to three times more likely to happen after a high carbohydrate meal. They said specifically NOT after a high fat meal.

Why is that? Because the immediate effects of raising your blood sugar from a high carbohydrate meal is to raise insulin and that immediately triggers the sympathetic nervous system which will cause arterial spasm, constriction of the arteries. If you take anybody prone to a heart attack and that is when they are going to get it.

"So the way we age is that we turn rancid and we caramelize. It's very true."

You can slow the rate of aging. Not just even the rate of disease, but the actual rate of aging itself can be modulated by insulin. there is some pretty good evidence that even in humans we still retain the capacity to control lifespan at least partially. We should be living to be 130, 140 years old routinely.

If you have a carbohydrate that is not a fiber it is going to be turned into a sugar, whether it be glucose or not. It may be fructose ... , fructose is worse for you than glucose, so if you just go by blood sugar it doesn't mean that you are not raising your blood fructose.

.... Glucose combines with anything else really, it's a very sticky molecule.Just take sugar on your fingers. It's very sticky. It sticks specifically to proteins. the term for glycation in the food industry is caramelization. They use it all the time, that is how you make caramel. So the way we age is that we turn rancid and we caramelize. It's very true. And that is what gets most of us. If that doesn't get us, then the genetic causes of aging will, because every cell in your body has genetic programs to commit suicide.

"What is a potato? A potato is a big lump of sugar. That's all it is."

Let's get to diet. Diet really becomes pretty simple. Carbohydrates we started talking about. You've got fiber and non-fiber and that's real clear-cut. Fiber is good, non-fiber is bad. Fibrous carbs, like vegetables and broccoli, those are great.

What is a potato? A potato is a big lump of sugar. That's all it is. You chew a potato, what are you swallowing? Glucose. You may not remember, but you learned that in eighth grade, but the medical profession still hasn't learned that. What is a slice of bread? A slice of sugar. Does it have anything else good about it? Virtually no. And there are fifty-some essential nutrients to the human body.

"What is the minimum daily requirement for carbohydrates? ZERO. "

..... What is the minimum daily requirement for carbohydrates? ZERO.
What is the food pyramid based on? A totally irrelevant nutrient.

.... Those are the two essential reasons that we need to eat. We need the building blocks and we need fuel, not the least of which is to have energy to obtain those building blocks and then to have energy to fuel those chemical reactions to use those building blocks.

So what are the building blocks that are needed, proteins and fatty acids. Not much in the way of carbohydrates. You can get all the carbohydrates you need from proteins and fats. So the building blocks are covered by proteins and fats.

"Glucose was meant to be fuel used in an emergency situation, such as running from a saber tooth tiger."

.... What about fuel? That's the other reason we eat. There are two kinds of fuel that your body can use with minor exceptions, sugar and fat. We mentioned earlier that the body is going to store excess energy as fat. Why does the body store it as fat? Because that is the body's desired fuel. That is the fuel the body wants to burn and that will sustain you and allow you to live. The body can store only a little bit of sugar. In an active day you would die if you had to rely one-hundred percent on sugar.

Why doesn't your body store more sugar if it is so needed? Sugar was never meant to be your primary energy source. Sugar is meant to be your body's turbo charger. The brain can actually exist without a whole lot of sugar, contrary to popular belief. Glucose was meant to be fuel used if you had to, in an emergency situation, expend an extreme amount of energy, such as running from a saber tooth tiger.

"Vegetables are great, I want you to eat vegetables but there is no essential need. "

..... Vegetables are great, I want you to eat vegetables. The practical aspect of it is that you are going to get carbs, but there is no essential need. Fruit is a mixed blessing. But most foods fall in the middle somewhere. Things like strawberries, you are going to get something bad with strawberries, you are going to get a lot of sugar with strawberries, but you are also going to get a food that is also the second or third highest in antioxidant potential of any food known, the first being garlic the second either being strawberries or blueberries. So, there is something good to be had from it. So I will let some patients put some strawberries in let's say a protein smoothie in the morning. But if they are a hard core diabetic, strawberries are out.

"Eating is the biggest stress we put on our body and that is why in caloric restriction experiments you can extend life."

..... Most food is a double edged sword. Eating is the biggest stress we put on our body and that is why in caloric restriction experiments you can extend life as long as you maintain nutrition. This is the only proven way of actually reducing the rate of aging, not just the mortality rate, but the actual rate of aging, because eating is a big stress.

.... Your primary fuel should be coming from fat. So you want to increase the ability of the cells in the body to burn fat. You want to make that glucose burner into a fat burner. You want to make a gasoline burning car into a diesel burning car.

"You want everybody, athletes especially, to be able to burn fat efficiently. So when they train, they are on a very low carbohydrate diet."

..... With athletes, let's think about that. What is the effect of carbohydrate loading before an event. What happens if you eat a bowl of pasta before you have to run a marathon. What does that bowl of pasta do? It raises your insulin. What is the instruction of insulin to your body?

To store energy and not burn it. I see a fair amount of athletes and this is what I tell them, you want everybody, athletes especially, to be able to burn fat efficiently. So when they train, they are on a very low carbohydrate diet. The night before their event, they can stock up on sugar and load their glycogen if they would like.

"Your primary energy source ideally would come mostly from mono-unsaturated fat."

.... In general, over 50% of the calories should come from fat, but not from saturated fat. Saturated fat is a hard fat. We can get the fats from foods to come mostly from nuts. Nuts are a great food because it is mostly mono-unsaturated. Your primary energy source ideally would come mostly from mono-unsaturated fat. It's a good compromise. It is not an essential fat, but it is a more fluid fat. Your body can utilize it very well as an energy source.

"Animal proteins are fine and are good for you, but not the ones that are fed grains."

..... Animal proteins are fine and are good for you, but not the ones that are fed grains. Grain-fed animals are going to make saturated fat out of the grains. Saturated fat in nature occurs to a very tiny degree. Not in the wild there is very little saturated fat out there. If you talk about the Paleolithic diet, we didn't eat a saturated fat diet. Saturated fat diets are new to mankind. We manufactured a saturated fat diet by feeding animals grains. You can consider saturated fat to be second generation carbohydrates. We eat the saturated fats that other animals produce from carbohydrates.

"I would go 20% of calories from carbs, 25 to 30% of calories from protein, and 60-65% from fat."

..... I would go 20% of calories from carbs. Depending on the size of the person, 25 to 30% of calories from protein, and 60-65% from fat. You can get non-grain fed beef.

Insulin is not the only cause of disease. There are other considerations such as iron. We know that high iron levels are bad for you. If a person's ferritin is high, red meat is out for a while, till we get their iron down. SO there are other things involved about if we are going to allow a person to eat red meat or not.

There is a great deal of difference between a non-grain fed cow and a grain fed cow. Non-grain fed will have only 10% or less saturated fat. Grain fed can have over 50%.

"There is a big difference. A non-grain fed cow will actually be high in Omega 3 oils."

There is a big difference. A non-grain fed cow will actually be high in Omega 3 oils. Plants have a pretty high percentage of Omega 3, and if you accumulate it by eating it all day, every day for most of your life, your fat gets a pretty high proportion of Omega 3. I would try for 50% oleic fat, and the others would depend on the individual, but about 25% of the other two.

..... I like sardines if they will eat them. Sardines are a very good therapeutic food. They are baby fish so they haven't had time to accumulate a bunch of metal. They are smoked so they are not cooked and the oil is not spoiled in them. You have to eat the whole thing. Not the boneless and skinless. You need to eat all the organs and they are high in vitamins and magnesium.

"Insulin is by far your biggest poison."

So if people are worried about chromosomal damage from chromium, what they should really be worried about instead is high blood sugar. Insulin is by far your biggest poison.

..... The lowering of insulin is going to be better than any possible detriment of any of the therapies you are using. Insulin is associated with cancer, everything.

By Ron Rosedale, M.D.

Find the full article at drbass.com/roosedale2.html

OPTIMAL DIET? - 10

NEW IDEAS - MORE ABOUT THE PROBLEMS WITH SUGARS: In these two articles, the Warburg Effect is presented, which concludes that sugars feed cancers. Can low-carb diets therefore reverse cancer? Yes, this is a conclusion of an interesting research project from Germany in 2007.

Cancer & The Warburg Effect

Cancer Spontaneously Reversing On Low-Sugar Diets

The Warburg Effect: Sugar is feeding cancer

When patients were put on low-carb diets in 2007, their cancers reversed spontaneously.

In Würzburg, Germany, researchers concluded that cancer cells have a different metabolism, the so-called Warburg hypothesis, or Warburg Effect, first described in 1924 by Otto Warburg. He concluded that "the prime cause of cancer is the replacement of the respiration of oxygen in normal body cells by a fermentation of sugar."

Can a High-Fat (Low-Carb) Diet Beat Cancer?

by Richard Friebe

Today, the capacity of the historical building overlooking the college town, where the baroque and mid-20th-century concrete stand in a jarring mix, has been downsized considerably. And the experiments within its walls are of a very different nature.

Since early 2007, Dr. Melanie Schmidt and biologist Ulrike Kämmerer, both at the Würzburg hospital, have been

enrolling cancer patients in a Phase I clinical study of a most unexpected medication: fat. Their trial puts patients on a so-called ketogenic diet, which eliminates almost all carbohydrates, including sugar, and provides energy only from high-quality plant oils, such as hempseed and linseed oil, and protein from soy and animal products.

What sounds like yet another version of the Atkins craze is actually based on scientific evidence that dates back more than 80 years. In 1924, the German Nobel laureate Otto Warburg first published his observations of a common feature he saw in fast-growing tumors: unlike healthy cells, which generate energy by metabolizing sugar in their mitochondria, cancer cells appeared to fuel themselves exclusively through glycolysis, a less-efficient means of creating energy through the fermentation of sugar in the cytoplasm. Warburg believed that this metabolic switch was the primary cause of cancer, a theory that he strove, unsuccessfully, to establish until his death in 1970.



Otto Warburg

To the two researchers in Würzburg, the theoretical debate about what is now known as the Warburg effect — whether it is the primary cause of cancer or a mere metabolic side effect — is irrelevant. What they believe is that it can be therapeutically exploited. The theory is simple: If most aggressive cancers rely on the fermentation of sugar for growing and dividing, then take away the sugar and they should stop spreading. Meanwhile, normal body and brain cells should be able to handle the sugar starvation; they can switch to generating energy from fatty molecules called ketone bodies — the body's main source of energy on a fat-rich diet — an ability that some or most fast-growing and invasive cancers seem to lack.

The Würzburg trial, funded by the Otzberg, Germany-based diet food company Tavartis, which supplies the researchers with food packages, is still in its early, difficult stages. "One big problem we have," says Schmidt, sitting uncomfortably on a small, wooden chair in the cramped tea kitchen of Kämmerer's lab, "is that we are only allowed to enroll patients who have completely run out of all other therapeutic options." That means that most people in the study are faring very badly to begin with. All have exhausted traditional treatments, such as surgery, radiation and chemo, and even some alternative ones like hyperthermia and autohemotherapy. Patients in the study have pancreatic tumors and aggressive brain tumors called glioblastomas, among other cancers; participants are recruited primarily because their tumors show high glucose metabolism in PET scans.

Four of the patients were so ill, they died within the first week of the study. Others, says Schmidt, dropped out because they found it hard to stick to the no-sweets diet: "We didn't expect this to be such a big problem, but a considerable number of patients left the study because they were unable or unwilling to renounce soft drinks, chocolate and so on."

The good news is that for five patients who were able to endure three months of carb-free eating, the results were positive: the patients stayed alive, their physical condition stabilized or improved and their tumors slowed or stopped growing, or shrunk. These early findings have elicited "very positive reactions and an increased interest from colleagues," Kämmerer says, while cautioning that the results are preliminary and that the study was not designed to test efficacy, but to identify side effects and determine the safety of the diet-based approach. So far, it's impossible to predict whether it will really work. It is already evident that it doesn't always: two patients recently left the study because their tumors kept growing, even though they stuck to the diet.

Past studies, however, offer some hope. The first human experiments with the ketogenic diet were conducted in two children with brain cancer by Case Western Reserve oncologist Linda Nebeling, now with the National Cancer Institute. Both children responded well to the high-fat diet. When Nebeling last got in contact with the patients' parents in 2005, a decade after her study, one of the subjects was still alive and still on a high-fat diet. It would be scientifically unsound to draw general conclusions from her study, says Nebeling, but some experts, such as Boston College's Thomas Seyfried, say it's still a remarkable achievement. Seyfried has long called for clinical trials of low-carb, high-fat diets against cancer, and has been trying to push research in the field with animal studies: His results suggest that mice survive cancers, including brain cancer, much longer when put on high-fat diets, even longer when the diets are also calorie-restricted. "Clinical studies are highly warranted," he says, attributing the lack of human studies to the medical establishment, which he feels is single-minded in its approach to treatment, and opposition from the pharmaceutical industry, which doesn't stand to profit much from a dietetic

treatment for cancer.

The tide appears to be shifting. A study similar to the trial in Würzburg is now under way in Amsterdam, and another, slated to begin in mid-October, is currently awaiting final approval by the ethics committee at the University Hospital in Tübingen, Germany. There, in the renowned old research institution in the German southwest, neuro-oncologist Dr. Johannes Rieger wants to enroll patients with glioblastoma and astrocytoma, aggressive brain cancers for which there are hardly any sustainable therapies. Cell culture and animal experiments suggest that these tumors should respond particularly well to low-carb, high-fat diets. And, usually, these patients are physically sound, since the cancer affects only the brain. "We hope, and we have reason to believe, that it will work," says Rieger.

Still, none of the researchers currently studying ketogenic diets, including Rieger, expects it to deliver anything close to a universal treatment for cancer. And none of them wants to create exaggerated hopes for a miracle cure in seriously ill patients, who may never benefit from the approach. But the recent findings are difficult to ignore. Robert Weinberg, a biology professor at MIT's Whitehead Institute who discovered the first human oncogene, has long been critical of therapeutic approaches based on the Warburg effect, and has certainly dismissed it as a primary cause of cancer. Nevertheless, he conceded, in an email, for tumors that have been affected by the ketogenic diet in animal models, "there might be some reason to go ahead with a Phase I clinical trial, especially for patients who have no other realistic therapeutic options."

Sep. 17, 2007

Richard Friebe is executive editor of the German science magazine SZ Wissen

Article extract from [Time Health & Science](#)

Tumors shrunk on low-carb diet - Carbohydrates are addictive

by Dr. Michael Eades

You think carbohydrates aren't addictive? You think it's easy to give them up? You don't think it possible that people might prefer carbs to life?

Think again.

A story appeared in the online version of Time Magazine last year that I read when it came out, put aside to blog about later, then got sidetracked. A reader sent me a link to it a few days ago, which brought it back to the front of my mind.



Michael Eades

The article discusses a study being done in Germany using a carb-restricted diet to fight cancer. In pre-WWII days, a German scientist, **Otto Warburg, received a Nobel Prize for his work in sussing out the fact that cancer cells don't generate energy the same way that normal cells do.** Cancer cells get their energy, not like normal cells, from the mitochondrial oxidation of fat, but from glycolysis, the breakdown of glucose within the cytoplasm (the liquid part of the cell). This different metabolism of cancer cells that sets them apart from normal cells is called the Warburg effect. Warburg thought until his dying day that this difference is what causes cancer, and although it is true that people with elevated levels of insulin and glucose do develop more cancers, most scientists in the field don't believe that the Warburg effect is the driving force behind the development of cancer.

But it stands to reason that it can be used to treat cancer that is already growing. Since cancers can't really get nourishment from anything but glucose, it stands to reason that cutting off this supply would, at the very least, slow down tumor growth, especially in aggressive, fast-growing cancers requiring a lot of glucose to fuel their rapid growth.

Thomas Seyfried (the same Thomas Seyfried mentioned in the article) has shown that ketogenic diets in animals and humans can stop malignant brain tumors. There is no reason to believe they wouldn't work in humans as well.

A group in Germany is looking at such diets in a small pilot study. Patients are only admitted to the study when all standard therapies - chemotherapy, radiation, surgery, etc. - have failed and they have basically been sent home to die. In fact, a few were so far gone that they died within the first week of starting the study. You couldn't ask for a study group more destined for failure, but, according to the Times article

The good news is that for five patients who were able to endure three months of carb-free eating, the results were positive: the patients stayed alive, their physical condition stabilized or improved and their tumors slowed or stopped growing, or shrunk.

If you understand the Warburg effect and the metabolism of cancer cells, it's easy to see why this therapy works, even in patients who are at death's door. Since the cancers can use only glucose, and since glucose is made in the cancer cells slowly and inefficiently, the cancer cells have to rely on outside glucose to provide nourishment for their rapid growth and replication. People on very-low-carb diets produce ketones, which take the place of glucose in other cells that can use these ketones for fuel. But cancer cells can't use the ketones since ketones have to be burned in the mitochondria, which are dysfunctional in cancer cells. If you can keep blood sugar low, then growth of the cancer cells may be held in check long enough for the body's own previously overwhelmed immune system to rally and beat the vulnerable cancer back.

Now, given all this, if you had a big cancer eating you alive and you were offered a chance for salvation by doing nothing more than following a low-carb diet, would you take it? I certainly would. But, not everyone does. I was stunned to read the comments of Dr. Melanie Schmidt, one of the researchers, about people dropping out of the study.

[Some] dropped out because they found it hard to stick to the no-sweets diet: "We didn't expect this to be such a big problem, but a considerable number of patients left the study because they were unable or unwilling to renounce soft drinks, chocolate and so on."

Let me see if I've got this right. A lifesaving therapy is offered to patients who have undergone the misery of radiation therapy, chemotherapy, and surgery, and who are beyond hope, and this therapy requires nothing more than eating a lot of butter, meat, cream, cheese, etc. while avoiding most carbohydrates. And a considerable number" drop out because they can't give up carbs?

I say it again. And you don't think carbs are addictive?

As a coda to this post, I've got to tell you that MD at this very moment is rolling out a fondant that she made a couple of days ago. She was dragooned into making the birthday cake for our granddaughter whose party is tomorrow. The kid doesn't want a store-bought birthday cake, she wants a custom-made cake by her Nanny, which has become a tradition. She wants a Razor (a Swat Kat) cake, so MD is having to free-hand it. Although she's never made a fondant before, she figured that would be the easiest way to frost and decorate the cake she has in mind. I wandered over to get a cup of coffee and pulled off a tiny piece of the stuff and popped in my mouth just to see what it tasted like. Her fondant is made with powdered sugar, corn syrup, and lard (not the vegetable shortening called for in the recipe), and it is good beyond belief. I'm sitting here writing this post, and after a tiny, tiny piece (maybe 3/4 inch by 1/2 inch by 1/8 inch) of fondant, I am obsessing over how easy it would be to walk the 10 feet to where it is and start throwing it down by the handfuls. So, yes, carbs are addictive. Especially the carb-fat combo.

Lest you get the wrong idea, our granddaughter's parents keep her on a kid's version of the low-carb diet most of the time. The cake is a once a year deal. Thank God.

Dr. Michael R. Eades BLOG

<http://www.proteinpower.com/drmike/ketones-and-ketosis/carbohydrates-are-addictive/>

10. October 2008

I highly recommend the study of [Drs. Eades "Protein Power"](#) as well as their follow-up book, "The Protein Power Lifeplan" (Warner Books, copyright 2000) for a clear presentation of the problems associated with a high carbohydrate diet, which leads to an excessive excretion of insulin and its resulting problems, which may account for more than 75% of our modern diseases and infirmities.

Dr. Stanley S. Bass

For more about optimal nutrition and Natural Hygiene, visit www.naturalhygienesociety.org

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From the Average Diet to Superior Nutrition in 7 Weekly Programs ("How to become a vegetarian")

A simple and easy way to reach a high-quality vegetarian diet (including dairy and eggs) from a conventional diet by 7 gradually-progressing weekly diets. Many people from around the world have written to me stating that their health problems disappeared in a few weeks to months just by following this book.

Ideal Health Through Sequential Eating (Perfection in Food Combining)

A simple method of eating which leads to maximum digestion, absorption and assimilation (which eliminates gas, belching and heartburn). It is based upon scientific and proven research (published in Howell's "Textbook of Physiology") which has been overlooked and is largely unknown.

In Search of the Ultimate (Vegetarian) Diet - Volume I. --- (Testing Nutritional Theories on Mice)

Hundreds of mice were used to test diets such as the vegan, fruitarian, vegetarian, lacto-vegetarian, ovo-vegetarian, raw diets, cooked diet, other diets and variations, periodic fasting and longevity, juice programs, all-raw vs. cooked Natural Hygiene diets.

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These lessons were organized and used by Dr. Bass at "The Life Science Health Haven" in Woodridge, N.Y. for several years as part of the curriculum of a training course in vegetarian Natural Hygiene for students.

The Eye of Revelation (The 5 Tibetan Rites of Rejuvenation).

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