

THE BETTER HEALTH NEWS

FATS AND MS

Happy B'Day USA!

<i>Multiple Sclerosis</i>	2
<i>Magnesium Foot Bath</i>	3
<i>Type 1 Diabetes and Omega-3 Oils</i>	3
<i>Magnesium and Glucose tolerance</i>	4
<i>Health Care Reform</i>	5
<i>Thiamin and Glucose Tolerance</i>	6

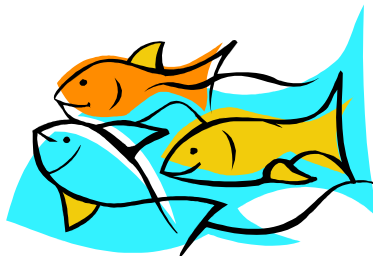
Research has shown that metabolites for lipid peroxidation are high in MS patients and tend to be even higher during periods of exacerbation. The amount of fat and the type of fat in the diet may play a role. An article that appeared in *The Practitioner* (May 1994;238:358-363) recommended a diet with fats being less than 30% of the total calorie intake. A study appearing in

The Lancet (July 7, 1990;336:37-39) looked at 144 MS patients on a low fat diet over a period of 34 years. It was a strict diet, allowing only 20g of fat per day. Those who followed the diet experienced less

deterioration and lower death rates than those who did not follow the diet. There was a correlation with deviating from the diet and exacerbation of the disease. The patients who benefited the most from the diet were those with minimal symptoms at the beginning of the study. The authors go on to say that diets that omit sources of saturated animal fat (red meat and the dark meat of poultry) seem to be even more beneficial. Stricter fat restriction (allowing only 10-15g per day of fat) also seems to be more beneficial. The article also states that supplementing with omega-3 fatty acids (cod liver oil) reduces relapse rates in MS patients.

A double-blind, placebo controlled study, published in *Prostaglandins, Leukotrienes and Essential Fatty Acids* (2005; 73(5): 397-404) looked at 31 subjects with relapsing-remitting MS who were placed on either a low-fat (15%) diet, supplemented with fish oil capsules or a diet consisting of 30% fat, supplemented with olive oil capsules (control group). The subjects on the low-fat diet, receiving the omega-3 fatty acids enjoyed a better quality of life when compared to the control group. The fish oil group improved and had fewer relapses, according to the Physical Components Summary Scale of the Short Health Status Questionnaire and the Mental Health Inventory.

Lipid peroxidation seems to be a component of MS. To a certain extent, a low-fat diet will minimize it. Supplementing with omega-3 fatty acids seems to have a protective effect on the nervous system. Other research supports the idea of supplementing with antioxidants—ostensibly to protect the nerve cells. This is a reasonable and inexpensive approach. Each **Biomega-3™** capsule contains 1000 milligrams of natural marine lipid concentrate (sourced from Anchovies and Sardines), providing a natural source of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).



Biomega-3™ is free of dioxin and mercury

DSD International
11001 N. 24th Ave.
Suite 603
Phoenix, AZ
85029

Telephone
800-232-3183
FAX
602-944-1356



Consider improving diet, along with **BioProtect™, B12-2000™ Lozenges** and **Bio-D-Mulsion Forte®**

DSD International

Our foundation is innovative ideas and carefully researched concepts. We develop those ideas with advanced analytical and manufacturing techniques. The result is nutritional products with superior quality and effectiveness. Our philosophy has made us an industry leader. We truly do bring you "The Best of Science and Nature".

For more information, call:

800-232-3183

**Nutritional Products for
Healthcare
Professionals**

MULTIPLE SCLEROSIS

There are approximately 350,000 people in the United States with MS. A number of studies have shown that certain nutrients, while not offering a cure, may help improve function and quality of life in MS patients. There are a number of studies that look at vitamin D levels and their relationship to the disease. A review of studies published in the *Annals of Pharmacotherapy* (Jun 2006; 40: 1158 - 1161) concluded that vitamin D supplementation may reduce the chances for developing MS and may also reduce the incidence of exacerbations in patients who already have MS.

One study published in the journal *Multiple Sclerosis* (2009; 15(1): 9-15) found that vitamin D had a protective effect in women and that higher serum vitamin D levels were associated with a reduced chance of developing the disease and reduced disability in those who already had the disease. A population-based study published in the *Journal of Neurology* (Volume 254, Number 5 / May, 2007) found an association between low serum vitamin D and the level of disability in MS patients. The authors recommend testing for vitamin D insufficiency and supplementing where needed as part of the clinical management of MS patients. Another cross-sectional study that was published in the journal, *Multiple Sclerosis* (2008 Jul 24; [Epub ahead of print]), found that serum vitamin D levels may be inversely associated with relapse rates in patients with relapsing remitting multiple sclerosis.

Antioxidants have also been studied. In the journal *Biological Trace Element Research* (1990;24:109-117) a study was published that looked at the antioxidant status of MS patients. The authors of the research state that studies have shown MS to be associated with low selenium levels

and antioxidants like glutathione peroxidase (a selenium dependent enzyme) and antioxidants like vitamin C and vitamin E are of value to MS patients. Indeed, MS patients had higher levels of peroxidation metabolites (ethane and pentane) than healthy controls, according to research appearing in *The Nutrition Report* (September 1992;10(9):70). Also, during times of exacerbation, the ethane and pentane levels are higher. In another study that appeared in *Biological Trace Element Research*, 18 MS patients and 13 healthy patients (used as a control) were given 666 mg of vitamin C, 80 mg of vitamin E and 2 mg of sodium selenate, three times each day. The study found that MS patients had much lower glutathione peroxidase levels than the normal controls and that the supplementation drastically increased levels of the enzyme with no side-effects.

Vitamin B₁₂ and its role in MS have been researched. A review article appearing in the *Journal of Neurology, Neurosurgery and Psychiatry* (1992;55:339-340) looked at MS and B₁₂ deficiency. While MS is clinically different from a B₁₂ deficiency, both conditions are involved with demyelination. The article notes research that shows MS patients to have macrocytosis (a condition found with B₁₂ deficiency). While not a cause, B₁₂ deficiency may be an aggravating factor. A study appearing in the *Archives of Neurology* (August 1991;48:808- 811) found low levels of vitamin B₁₂ in MS patients. *The Journal of Neuroimmunology* (1992;40:225-230) notes that MS patients seem to suffer from macrocytosis and high homocysteine. The author believes that there is more than a casual link between vitamin B₁₂ deficiency and MS.

THE MAGNESIUM FOOT BATH

Children often need to be supplemented with magnesium. Research has shown it to be beneficial to asthma patients and for children with ADD/ADHD. Often it is difficult to get a child to swallow a pill. Biotics Research makes magnesium in a liquid form, **Aqua Mag-CI™**, containing 200 mg of magnesium per teaspoon. The downside is that it has a very strong taste and getting children to take it



might prove to be difficult. One novel way to get the magnesium inside the child is to prepare a foot bath with a quart of water and a couple of teaspoons of the **Aqua Mag-CI™**, and have the child soak his or her feet in it. The magnesium is absorbed through the feet and you do not have to struggle to get a child to swallow an acrid, bitter liquid.

FREE—MP3 Download—“ADD/ADHD—Think Before You Use Drugs”

—burn a CD and teach your patients drug-free strategies for ADD and ADHD

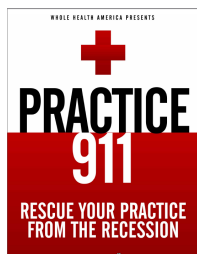
<http://www.wholehealthweb.com>

Whole Health Web is a great place to send your patients to learn about natural health

OMEGA-3 FATTY ACIDS AND TYPE 1 DIABETES

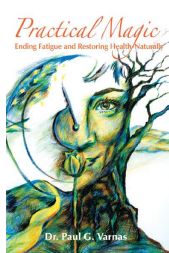
Research appearing in the *Journal of the American Medical Association* (2007; 298(12): 1420-8) shows that omega 3 fatty acids may reduce the risk of type 1 diabetes in high-risk children. The definition of “at-risk” was defined as having a parent or sibling with type 1 diabetes, or having a high diabetes risk HLA genotype. One longitudinal, observational study involving 1,770 high-risk children and another case-cohort study involving 244 high-risk children looked at omega-3 fatty acid consumption and the development of islet autoimmunity; it found an inverse relationship

between the two. Similarly, there was an inverse relationship between the omega-3 content of red blood cell membranes and the development of islet autoimmunity. Islet autoimmunity risk was defined as being positive for insulin, glutamic acid decarboxylase, or insulinoma-associated antigen-2 autoantibodies on two consecutive visits, and autoantibody positive or having diabetes at last follow-up visit. The authors of the study concluded that omega-3 fatty acid consumption reduced the risk for the development of type 1 diabetes in those at risk.



Get it at
thebetterhealthnews.com

*Consider
Glucobalance™ for
 patients with insulin
 insensitivity
 To order useful
 products for your
 patients, call us at
 800-232-3183 for
 product information.*



Now Available
WholeHealthWeb.com

MAGNESIUM AND GLUCOSE TOLERANCE

There is a lot of research supporting the idea that chromium is a valuable supplement for people with glucose and insulin issues. People don't always think of magnesium when it comes to this issue, but there is a fair amount of research supporting magnesium supplementation for insulin insensitivity and poor glucose tolerance.

An observational study appearing in the *Journal of the American College of Nutrition* (2006; 25(6): 486-92) found that subjects who consumed more magnesium in their diets had better glucose tolerance. The subjects were 1,223 men and 1,485 women without diabetes. Food frequency questionnaires were given to participants of the Framingham Offspring Study and it was found that subjects in the highest quintile of magnesium consumption had better insulin sensitivity than those in the lowest quintile.

A double-blind, placebo-controlled study appearing in the *American Journal of Clinical Nutrition* (1992;55:1161-1167) looked at the relationship between glucose tolerance and magnesium status. The subjects were 25 young, healthy men and 12 elderly men. They were given the equivalent of 360 mg of magnesium or a placebo over a period of four weeks. In the group receiving the magnesium, red cell magnesium levels and the microviscosity of the red cell membranes improved. Magnesium affects insulin secretion and is necessary for the glucose transport system. It is also involved with energy production and an important

cofactor for phosphorylation.

It is estimated that 25% of the diabetic population is magnesium deficient. Lethargy, weakness, irritability, confusion, vertigo, paresthesia, anorexia, nausea, vomiting, and tetany are possible symptoms in magnesium deficiency. Diabetic complications include high blood pressure, cardiac arrhythmias, retinopathy, mineral homeostasis, dyslipidemia, and reduced release of insulin—all of which can be the result of insufficient magnesium.

Of course if insulin insensitivity is a problem, other nutrients are of value. Chromium, zinc, B vitamins, selenium, antioxidants and omega-3 fatty acids are all important nutrients for those who are insulin insensitive, diabetic or who have syndrome X. **Glucobalance[®]** is a multiple vitamin/mineral supplement designed by Dr. Alan Gaby and Dr. Jonathan Wright to help patients with insulin insensitivity and blood sugar handling problems.

Mg-Zyme™ is a source of organically combined magnesium (100 mg of magnesium per tablet). It is also useful for tissue injury, muscle cramps, inflammation, PMS, cardiac stress, asthma, renal and gall stones, as a calcium synergist, chronic fatigue, diabetes, hypoglycemia and fibromyalgia (4 tablets at bedtime, then increase by 1 tablet every other evening until bowel tolerance is achieved (loose stool) and then begin to lower the dose).

Brother, Can You Spare \$2 Trillion?

Believe it or not, you are the answer to *real* health care reform, and can offset the \$2 trillion dollar annual healthcare expense!

TOGETHER, WE CAN MAKE A REAL DIFFERENCE!

Face it...you are on the front lines of a revolution in health care. As a natural health practitioner, you know why American healthcare costs are so high: bad information, and a lack of knowledge leading to expensive, invasive and ineffective procedures and treatment. You also know that there's a better way, and it all starts with practitioners like you.

JOIN US AT *WholeHealthWeb.com* AND TOGETHER WE CAN REFORM HEALTHCARE - *For Good!*

At Whole Health America, we're driven to increase awareness of natural health care, and the quality of the work you do. We've created a brand new site dedicated to providing an educational resource exclusively for natural health care and alternative medicine. The site features a professional directory and easy access to qualified practitioners like yourself.

We'd like to invite you to join our effort, and dramatically increase exposure to your practice and the life-changing services you provide, all at the same time by subscribing to our professional practice directory. Your investment of just \$9.95 per month will go a long way to reforming the 2 trillion dollar annual health care expense.

Your listing on WholeHealthWeb.com will provide easy access to you and your practice to thousands of site visitors, looking for the services you provide, and create a direct link between you and new patients. Your subscription demonstrates your commitment to improving the health and quality of life for millions of Americans caught in the restraints of traditional medical care.

Your Subscription Includes...

A Prominent Listing in our Professional Services Directory featuring your name, logo, address, web site address, and telephone number, as well as directions to your location, and a description of your practice making it easy for new patients to find and get in touch with you

Free Patient Education and Materials promoting natural health care, you and your practice.


A Free Copy of Our Award-Winning Book: *Practice 911 - Rescue Your Practice From The Recession*

A Free Copy of Our Full-Featured Workshop Guide giving you over 5 complete workshops and programs, designed to recruit new patients en masse.

**START
TODAY FOR
JUST
\$9.95**

Start Today For Just \$9.95!

Visit: www.WholeHealthWeb.com to subscribe now.

 **Whole Health America**

DSD International
11001 N. 24th Ave.
Suite 603
Phoenix, AZ
85029

Telephone
800-232-3183
FAX
602-944-1356

For information about the products mentioned in this newsletter, or to change your address, contact Biotics Research at 800-232-3183

THIAMIN AND GLUCOSE TOLERANCE

There are three enzymes involved in glucose metabolism that are thiamin dependent, α -ketoglutarate dehydrogenase, pyruvate dehydrogenase, and transketolase. So it stands to reason that thiamin may help with glucose tolerance. A number of studies have shown fiber to help with glucose tolerance (*Archives of Internal Medicine* [2007; 167(21): 2304-9], to name one of many). A study published in *Diabeologia* (1998;41:1168-1175) looked at glucose tolerance in nearly 2200 non-diabetic men and women between the ages of 50 and 75. Researchers noted that there was an inverse association between fiber intake and fasting glucose. Fiber intake was also associated with lower glucose two hours into a glucose tolerance test. Adjusting for the lower fasting glucose level existing with high fiber intake negated the glucose lowering effect at two hours post prandial. Thiamin intake was associated with lower glucose at two hours; this lowering effect was independent of fiber intake or fasting glucose levels.

Another study published in the *Journal of Gastroenterology and Hepatology* (1991;6:59-60), demonstrated that thiamin helped the glucose tolerance curves in patients with cirrhosis. Thiamin is stored, to a certain extent, in the liver and is also metabolized there.

Thiamin also improves the function of the vascular endothelium. A study published in the *Annals of Vascular Surgery* (2006; 20(5): 653-8) looked at 10 patients with diabetes, 10 patients with impaired glucose tolerance and 10 healthy patients. It found that giving 100 mg of thiamin intravenously improved vessel elasticity and that thiamin may be useful in improving atherosclerosis in patients with type 2 diabetes.

Bio-3B-G® is a multiple B vitamin containing the phosphorylated forms of B₁, B₂ and B₆. Product is the same as **Bio-B 100™**, except this product is three times higher in phosphorylated thiamine.