

BAD DIET = BAD HEALTH! – Research Continues to Support GNLD Position

As scientists around the world continue their pursuit of knowledge of the human body and how it works, the evidence supporting the connection between poor diet and disease continues to mount. One new area of research that's sounding an ominous alarm is the increasing occurrence of "age-onset" diseases of the elderly occurring more and more in the young. The fact is that disease conditions that used to be exclusive to the elderly are now being discovered for the first time in children. This trend has health experts across the globe calling for immediate action to correct the dietary disasters known to be the cause.

The most recent discovery that has the global medical community abuzz is the increasing diagnosis in children of Metabolic Syndrome, a cluster of symptoms that point to increased risk of cardiovascular disease, including obesity, high blood pressure, elevated blood glucose and LDL cholesterol, and low HDL cholesterol.

Writing in the December 2006 edition of *Mayo Clinic Proceedings*, researchers state, "Unfortunately, as the population becomes less active and more obese, we're seeing a rise in this constellation of risk factors for cardiovascular disease." It is currently estimated that as much as 25% of the adult population suffers from Metabolic Syndrome. The fact that it is occurring at all in children is an indication that something is very wrong.

The problem, according to this research, is too little activity coupled with poor diet. The solution: get active and get control of your weight by reducing the fat content and "glycemic load" in your diet. Avoid fast, processed, calorie-dense foods and eat a healthy diet—one that includes whole grains, fruits, vegetables, and fish. In order to ensure the daily abundance of vital nutrients without all the calories, look to whole food-derived supplementation.

To GNLD, the increasing occurrence of the symptom cluster known as Metabolic Syndrome and its long-term health consequences is not news. Indeed, we helped bring the subject to the forefront of medical understanding when we invited Dr. Gerald Reaven of the Stanford University School of Medicine—the first to identify this condition—to present the topic at the GNLD-sponsored Arthur Furst Lecture on Nutrition

and Disease Prevention in 2002. The glycemic load (sugar burden) of the average person's diet has been strongly correlated with Metabolic Syndrome, and taking control of the body's glycemic response was the basis of our GR² Control weight loss program. With its proven ability to help control blood glucose levels (published in the *Journal of the American College of Nutrition*: October 2001) and the exponential benefits that it brings to the body, the GR² Control program is a perfect choice for modern dietary and weight loss challenges.

North Americans Get Nearly 25% of their Daily Calories from Drinks!

As amazing as that headline sounds, it is true. Government researchers analyzing data from the most recent compilation of NHANES (National Health and Nutrition Examination Survey) data found that more than 50% of Americans aged 4 and older consume sugary drinks daily. In fact, when researchers looked at more than 10,000 participants in the study, they found that sugary drinks account for more than 22% of total daily calories. As these are "negative calories," not only do they contribute to poor nutrition by displacing nutrient-positive foods and nutrient-rich beverages, but they also often require nutrients to be metabolized by the body—further depleting the body's nutrient resources and undermining health and vitality. A better choice, according to just about every health professional in the world, is WATER!

Factoid: Coca-Cola® is served as a drink more than 600 million times per day around the world. That's about 450,000 cokes per minute!

Two Studies Highlight Importance of Diet to Young Adults.

1. Young adult diets are full of holes!

Researchers from the University of Minnesota publishing in the December 2006 issue of the *Journal of the American Dietetic Association* found that most young adults do not get enough of fundamental nutrients on any given day. This is due almost entirely to the over-dependence of this population group on fast and convenience foods. According to the researchers, only 3% of young adults that did not have "high involvement" in food preparation at home got anywhere near the 5-a-day fruit and vegetable intake recommendations, leaving them devoid of critical fruit and vegetable nutrients for long periods of time. The

conclusion: they simply do not get enough of the basics—whole grains, fruits, and vegetables! This leaves large dietary gaps of these important health-protecting factors.

2. The healthiest adolescents regularly take supplements!

In a counter-point study, again published in the December 2006 issue of the *Journal of the American Dietetic Association*, researchers showed that the healthiest portion of the adolescent population is made up of those that take dietary supplements. The National Institute of Health-funded study with the unwieldy name of “Vitamin Supplement Intake is Related to Dietary Intake and Physical Activity: The Child and Adolescent Trial for Cardiovascular Health,” showed that when dietary supplements are the norm for children and adolescents, their overall health and awareness of the importance of nutrition are higher than their peers. “Adolescents who use multivitamin and mineral supplements have more healthy dietary and lifestyle behaviors than non-users,” stated lead researcher Dr. Lindsay Reaves.

Factoid: Despite our intention to eat a healthier diet, according to the USDA, snack food consumption in the U.S. has increased 233% in the last 20 years.

Three New Studies Highlight Importance of Folic Acid to Long-term Cognitive Function!

According to brain function researchers from around the world, the B-Vitamin family member known as Folic Acid is brain food—critical to long-term function.

1. Researchers from the Taub Institute for Research of Alzheimer’s Disease and the Aging Brain, publishing in the *Archives of Neurology* (2007; 64:86-92), showed that study subjects in the highest quarter of folic acid intake had the lowest risk of Alzheimer’s Disease. The mechanism of action is the ability of folic acids to lower homocysteine, a metabolic amino acid blood factor known to increase oxidative stress when levels become elevated.
2. Researchers from the Netherlands, publishing in the January 19th issue of *The Lancet*, found that older people who regularly take a folic acid supplement have better memory and cognitive ability than those who do not take the supplement. Lead author Jane Durga wrote; “In the 818 older adults (in our study), daily oral folic acid supplementation for three years beneficially affected global cognitive function, and specifically memory and information processing—functions that are sensitive to aging.” They went on to say that the 800 mcg per day dose they employed “...confers an individual the performance of someone 4.7 years younger for memory.” Their conclusion is that the benefit may be greater than that of lowering homocysteine and relate to some deeper involvement of the nutrient in brain biochemistry.

3. Folic acid even plays a role in hearing! Hearing is directly a function of the brain and its ability to process input from the auditory nerve pathway. In two findings published in the January 2007 issue of the *Annals of Internal Medicine* (Vol. 146, Issue 1, pgs 1-9 and pgs 63-64), researchers from Washington University and the University of California, Davis (UCD), concluded that supplements of folic acid seem to prevent age-related hearing loss in both men and women. In the accompanying editorial, UCD researcher Dr. Robert Dobie said that if such a benefit could be applied generally in the population, then a five-decibel decrease in age-related hearing loss might be observed over a 20-year period, resulting in a significant reduction in the need for hearing aids.

Factoid: According to the National Campaign for Sustainable Agriculture, for every dollar we spend on produce at the supermarket only \$.05 reaches the farmer.

Diet and Cancer Prevention: New Research Confirms Relationship!

1. Vitamins C and E linked to lower kidney cancer risk.

An Italian study funded by the charity Cancer Research UK and published in the *International Journal of Cancer* (Vol. 120, issue 4, pgs 892-896) found that increased intake of antioxidant vitamins C and E can cut the risk of kidney cancer by as much as 44%. The study that assessed the dietary intakes of 767 patients with renal cell carcinoma (RCC) showed an inverse relationship to intake of these two antioxidant vitamins and the occurrence of the disease. When E and C are high, RCC risk is lower. When E and C are low, RCC risk is higher. This prompted the researchers to state that, “The present findings support a possible beneficial effect of vitamin E and vitamin C on RCC.”

2. Garlic and Onion offer a wide range of cancer protection.

In an Italian study published in the November 2006 issue of the *American Journal of Clinical Nutrition* (Vol. 84, No. 5, pgs 1027-1032), researchers concluded that “Allium vegetables are a favorable correlate to cancer risk in Europe.” Simply stated, that means that when the consumption of allium vegetables (garlic, onion, leek, chive, etc) is high, the risk of many forms of cancer is low. Studying about 15,000 adults, the researchers point out, “This uniquely large data set from Southern European populations shows an inverse association between the frequency of use of allium vegetables and the risk of several common cancers.” (These cancer types include colorectal, ovarian, prostate, breast, renal cell, esophageal, oral cavity, and pharynx.)

3. Tea gets the prevention spotlight once again!

USDA researchers published new findings pointing out that teas, both green and black, have powerful anti-cancer properties over a wide range of tumor types. The anti-cancer benefits of green tea have been well known, but the carry over of these properties to black tea provides powerful new evidence for cancer prevention. Writing in the January 2007 issue of the *Journal of Agriculture and Food Chemistry*, the researchers stated that, "Because tumor promotion may be the only reversible event during cancer development, its suppression is regarded as an effective way to inhibit carcinogenesis."

GNLD has long known the importance of specific whole food phytonutrient groups to health protection and cancer prevention. Our unique formulas for vitamins E and C assure an abundance of both nutrients, as well as the whole family of bio-functional supporting nutrients that surround them in the human food chain. Our Garlic Allium Complex guarantees delivery of the therapeutically recognized dose of active allium vegetable compounds. Finally, teas play important roles in several of our products, including Aloe Vera Plus and Cruciferous Plus. The latter has been tested to U.S. National Cancer Institute protocol and shown to inhibit cancer progression in human breast cells in culture.



SAB HAS THE ANSWERS:

Q. Is there any mercury in the Salmon Oil Plus product?

A. All fish oil sources used in GNLD's Salmon Oil Plus are tested to the detection limit of 9 parts per billion. GNLD screens the fish oil for more than 160 potential contaminants, including mercury, with an allowable detection limit of ZERO. Our standard testing follows the protocols of the American Organization of Organic Chemists. These extensive laboratory procedures ensure that the fish oil we receive meets or exceeds our purity and potency guidelines to provide the highest quality product available.

Q. Why are there other minerals in Vitality Calcium Plus?

A. Vitality Calcium Plus is more than a calcium supplement; it is a mineral complex designed to support the development and maintenance of strong, healthy bones. Each serving contains multiple sources of calcium, plus other minerals such as magnesium, zinc, copper, and manganese that are critical to the process of bone development.

Q. Why does GNLD use soy protein isolate and not whole soy in NouriShake®?

A. Soy is an excellent source of protein; GNLD uses soy isolates in NouriShake and other protein supplements because they deliver high quality protein. Another advantage of soy protein isolate is that it contains specific elements of the phytonutrient value of whole soybeans in a concentrated form. Our soy isolates contain the same spectrum of isoflavones found in whole soybeans, but soy isolates deliver *more* protein and isoflavones with fewer calories and fat on a gram-for-gram basis than whole soybeans.

Q. At what age can children use the GR² Control diet program?

A. Childhood obesity is of great concern due to its increased rates in the U.S. and other developed countries. However, young children often go through cycles when they gain weight then lose it during growth periods. We suggest discussing weight loss with the child's physician before starting the GR² Control weight loss program. Should the child's physician agree weight has become a concern, GR² is a perfect solution.

For a finicky eater, GR² Control Meal Replacement Protein Shakes can be a great start to a day. When children don't want to eat breakfast, or perhaps there is no time for a "traditional" breakfast, GR² is a healthy, delicious, and nutritious choice over fast food, doughnuts, or sugar-filled energy bars.

Q. What makes GNLD's fiber different from other fiber products?

A. GNLD's Multi Fiber Blend and All Natural Fiber Food and Drink Mix provide high-quality soluble and insoluble fiber from whole foods such as grains, fruits, and vegetable sources. Both products contain all five types of fiber and are concentrated to provide approximately one quarter of the daily value of fiber in each serving. GNLD's Multi Fiber Blend and All Natural Fiber Food and Drink Mix can be mixed with your favorite drink or combined in foods to offer a simple, natural way to increase your fiber intake.

Research shows diets high in fiber from a variety of whole foods, can reduce the risk of a wide variety of health-challenging conditions such as heart disease, cancer, diabetes, diverticulosis, obesity, irregularity, and more.

Whole Grain Goodness-Back in the Headlines!

From television commercials to warnings from the Centers for Disease Control, the importance of a diet rich in whole grains continues to headline news on nutrition! The more we look, the more we find that whole grains do things in our diets that other foods don't and processed grains like white flour simply can't.

In the January 2006 edition of the *American Journal of Clinical Nutrition*; (volume 83, issue 1,) a study titled "Whole-Grain Intake is Inversely Associated with The Metabolic Syndrome and Mortality in Older Adults" shows that older people who eat whole grains regularly had a significantly reduced risk of heart disease and metabolic syndrome and lower fasting glucose levels. Conversely, refined grains were associated with higher fasting glucose and increased risk of metabolic syndrome.

This builds on evidence published in 2002—"Effect Of Whole Grains on Insulin Sensitivity in Overweight Hyperinsulinemic Adults," (*Am J Clin Nutr* 2002, 75: 848-855.)—that showed a direct whole grain advantage over refined grains when it comes to managing healthy insulin levels.

Four Large and Important Studies Show the Whole Grain Connection to Heart Health.

1. A 1998 study of 34,000 women showed that those who ate at least one serving of whole grains per day had between 30% and 36% lower risk of heart disease. ("Whole-Grain Intake may Reduce The Risk Of Ischemic Heart Disease Death in Postmenopausal Women: the Iowa Women's Health Study" *Am J Clin Nutr* 1998 68: 248-257.)
2. Results of the Nurse's Health Study that followed 75,000 subjects for up to twelve years showed that those who ate about three servings of whole grains each day had a 25% lower risk of heart disease and a 36% lower risk of stroke than those who did not make whole grain part of their diet. ("Whole-Grain Consumption and Risk Of Coronary Heart Disease: Results from The Nurses' Health Study," *Am J Clin Nutr* 1999, 70: 412-419.)
3. Another study published in a 2000 issue of the *Journal of the American Medical Association* found similarly strong connections to whole grain intake and health, up to 50% reduction of risk of

ischemic stroke. ("Whole Grain Consumption and Risk of Ischemic Stroke in Women: A Prospective Study," *JAMA*. 2000;284:1534-1540.)

4. Of the 44,000 men in the Health Professionals Follow-up Study, those who consumed about 3 servings per day of whole grain enjoyed an 18% reduction in risk of heart attack. ("Intakes Of Whole Grains, Bran, and Germ and the Risk Of Coronary Heart Disease in Men," *Am J Clin Nutr*, 2004, 80: 1492-1499.)

GNLD has been focusing attention on the importance of whole grains and the unique nutrients they contain for decades. Whole grain nutrition is a basic need of a healthy body. Its importance is appropriately symbolized in its position as a foundation food in the Healthy Food Pyramid. What gives whole grains their heart-health power is no doubt a combination of factors, including lipids, sterols, fiber, vitamins, minerals, and other phytonutrients. What's known for sure is that processed grains don't do the job.

So, what does all this tell you to do? Well, you need to find and eat more whole grain foods—every day. Be cautious, though. First of all, looks are deceiving. Just because bread is brown or even labeled "wheat bread" does not mean that it is made from whole grain flour. Ingredients such as molasses can be added to breads to make them look healthier. Look for "whole grain" on your bread labels.

Be aware that other foods labeled "whole grain" may be devoid of lipids, sterols, and fiber too. To help ensure your body is getting what it needs, read labels carefully and include supplements in your health game-plan. GNLD's Tre-en-en® Grain Concentrates provide an easy, convenient way to increase "lipid and sterol" content, while our fiber supplements Multi-Fiber Blend and All Natural Fiber Supplement can quickly help close your fiber gap.

Factoid: When whole grain wheat is refined to make flour, most of its nutritional value goes down the drain. For example, thirteen key nutrients, including vitamin E, are reduced as much as 93%. To compensate for this incredible loss, the flour is enriched, but with only five nutrients, making it into what many scientists and researchers see as negative nutrition. (www.wholegraincouncil.org)

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