



Importance of Supplementation

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Scientific Evaluation Finds Benefits In Liquid Vitamin and Mineral Supplements

In 1998 the Journal of Medicinal Foods published an evaluation on liquid vitamins and minerals. The purpose of the evaluation was to look at the evidence surrounding whether or not there were benefits to vitamin and mineral supplements delivered in liquid form. A wide variety of research studies were reviewed and it was determined that liquid supplements contain nutrients that are highly bioavailable, can be gentler to the stomach and are sometimes more suitable for children and elderly people. For more information, go to the *Journal of Medicinal Food, Volume 2, Number 3, page 207*. 🌿

Major Scientific Review Validates the Importance of Vitamins

In June of 2002, one of the most respected journals in medicine, the Journal of the American Medical Association, published a comprehensive review of almost 40 years worth of scientific research on the relationship between vitamins and certain diseases. This review, which was conducted by two Harvard researchers, clearly illustrates how vitamin deficiencies are associated with chronic diseases such as cancer, coronary heart disease and osteoporosis. The researchers located many studies that prove taking folic acid during pregnancy helps prevent certain birth defects. Folic acid has also been proven to help prevent heart disease and several types of cancer when taken on a regular basis. Regarding the intake of vitamin E, the researchers located evidence that it is an important antioxidant necessary for immune function. They also found that vitamin E has a role in the prevention of heart disease and prostate cancer in some people. Vitamin D and its relation to bone mass appeared in the review as well as supportive evidence for the value of vitamins B6 and B12. Based on these findings and the recognition that Americans are not receiving enough vitamins from their diets, the Harvard researchers recommend that all adults take one multivitamin daily. For more information, go to the *Journal of the American Medical Association, June 19, 2002*. 🌿

Plant Nutrients from the Mangosteen Fruit Inhibit Leukemia Cell Growth

In a recent study, scientists examined the effects of a variety of xanthones found in mangosteen fruit on human leukemia cells. Xanthones are plant nutrients or phytochemicals that have been studied for their medicinal and antioxidant potential. All of the xanthones displayed cell growth inhibitory effects. For more information, go to the *Journal of Natural Products, Volume 66, 2003*. 🌿

American Diet Lacking in Essential Minerals

USDA statistics show the average American diet is significantly lacking in the essential minerals needed for energy production and protection from free radical damage as well as other vital functions. This is according to statistics from the USDA's 1994-96 Continuing Survey of Food Intakes by Individuals and 1994-96 Diet and Health Knowledge Survey. Additional information is from The Council For Responsible Nutrition Recommended Intakes of Vitamins and Essential Minerals. www.crnusa.org/benpdfs/CRN012benefits_recs.pdf. 🌿

Vitamin and Antioxidant Combination Reduces Risk of Heart Disease and Stroke

A recent study conducted at the Federal Centers for Disease Control and Prevention indicates that when multivitamins are combined with antioxidant vitamins, such as vitamin E, death risk from heart disease, cardiovascular disease and stroke goes down. The study compared the death rates of persons who used multivitamins in combination with vitamin E and other antioxidants, as well as those persons who used antioxidant vitamins only versus the death rate of those who used no vitamins at all. What was concluded is that persons who took vitamin E and other

antioxidants along with multivitamins had a 15 percent lower risk of dying from heart disease than those who used no vitamins at all. For more information, go to the *American Journal of Epidemiology 2000; 152: 149-162*. 🌿

Vitamin E and C Together at High Doses Reduce the Risk of Alzheimer's Disease

Johns Hopkins University researchers recently reported that the intake of vitamins E and C in combination reduced both the prevalence and incidence of Alzheimer's disease. Using data gathered from a large group of respondents age 65 and older, the researchers' investigation revealed that high doses of certain antioxidants may mitigate age-related cognitive deterioration by protecting neurons from free radical damage. Free radicals are unstable oxygen molecules that can damage the body from exposure to environmental toxins, intake of chemicals found in processed foods, overexertion, etc. Because of the results of this study, researchers suggest that antioxidant supplements merit further study as agents for the primary prevention of Alzheimer's disease. For more information, go to the *Archives of Neurology, Volume 61, January 2004*. 🌿

Antibacterial Activity of Xanthones Found In Mangosteen Appears Strong

In a study conducted at the Gifu Pharmaceutical University in Japan, an in-vitro study showed that some of the xanthones from garcinia mangostana (mangosteen) had strong antibacterial activity. Xanthones are plant nutrients or phytochemicals that have been studied for their medicinal and antioxidant potential. For more information, go to the *Journal of Pharmacy and Pharmacology, Volume 48, Issue 8*. 🌿

Proanthocyanidins Shown as Being Powerful Free Radical Scavengers

Proanthocyanidins are a specific class of phytonutrients with numerous health giving properties. This class of flavonoids earned their primary reputation as being powerful antioxidants or free radical scavengers. Free radicals are damaging unstable oxygen molecules that get into the body as a result of over-exercise, stress, being exposed to dirty air and other environmental pollutants. Proanthocyanidins also help in the stabilization of collagen and elastin. These are two critical fibrous proteins found in the connective tissues that support organs, joints, blood vessels and muscle. Proanthocyanidins can be found in numerous plant and food sources including mangosteen. 🌿

Hexose Sugars May Improve Wound Healing

An animal study based in Finland found that galactose may enhance wound healing. Mannose, it was found, inhibits the inflammatory reaction and decreases granulation tissue formation. Granulation tissue is the soft, pink tissue that forms over the wound in the third stage of healing. Galactose and mannose are hexose sugars or simple sugars that have six carbon atoms per molecule. For more information, go to <http://www.nutritionhealthinfo.com/links/58.html>. 🌿

Aloe Vera May Support Natural Hormone Therapy in Activating Anticancer Immunity

The potential for natural cancer therapy has been suggested recently by advances in the field of tumor immunobiology. It is believed that the body's natural neurohormones, such as pineal indole melatonin (MLT), may activate anticancer immunity. In addition, immunomodulating substances have also been isolated from plants, particularly from aloe vera. A clinical study was conducted to evaluate whether or not the addition of aloe vera to MLT administration may enhance the therapeutic results in patients with certain cancers. Cancer patients were given daily MLT alone or MLT plus aloe vera orally. This preliminary study suggests that natural cancer therapy with MLT plus



aloe vera may produce some positive therapeutic benefits in certain cancer patients. For more information, go to *Natural Immunity, Volume 16, Issue 1*.

Compounds Found in Fruit Help Support Heart Health

In a recent Norwegian-US study, it was found that a diet rich in flavonoids could slash the risk associated with cardiovascular disease. Flavonoids are a class of nutritionally rich water-soluble pigments found in fruit, vegetables, coffee, tea and chocolate. The prospective cohort study, involving 34,489 postmenopausal women, reports that a high dietary intake of several classes of flavonoids can reduce the risk of death from coronary heart disease and cardiovascular disease by between 10 and 22 per cent. This study adds to the mounting body of science that supports the benefits of plant based nutrition. For more information go to the *American Journal of Clinical Nutrition, Volume 85, March 2007*.

Aloe Vera in Combination Benefits Patients with Heart Disease

Five thousand patients with angina pectoris were studied over a five year period of time. Angina pectoris is the medical term for chest pain or discomfort due to coronary heart disease. During the five-year period, the patients' diets were supplemented with aloe vera and psyllium husks. What was then observed were

numerous indicators showing an improvement in cholesterol balance, such as a reduction in total serum cholesterol. At the same time, the clinical profile of these patients showed reduction in the frequency of anginal attacks and a gradual reduction in the use of drugs. The patients most benefitted were diabetics (without adding any diabetic drug). According to the study's author, the exact reason behind why the above two substances work is unknown, but may be due to their fiber contents. Both substances need further evaluation. For more information, go to the *Journal Angiology, Volume 36, Issue 8*.

Glyconutrient-Rich Aloe Vera May Enhance Cellular Communication

Glyconutrients are healthy plant nutrients. They are found at the cellular level of edible plants in the form of polysaccharides or plant sugars. Glyconutrients come from a variety of sources but most notably from the succulent and highly nutritious aloe vera plant.

Glyconutrients work naturally to help support many necessary functions in the body. One very important function is that of the immune system. Glyconutrients may enhance and condition cellular communication at a deep physiological level to help keep the body's defense mechanisms efficient and strong. "Cell to cell communication" is a commonly used phrase which describes a vital role that sugar molecules play in the body to

maintain healthy structure and function. There is a variety of different sugar molecules involved in the process of cell to cell communication, but the main sugar molecule with respect to this process is mannose, with the secondary sugar molecule being galactose.

Green and Black Tea Promising for Prostate Cancer

A study was recently conducted to see whether or not the polyphenols found in tea might slow the growth of prostate cancer cells. Polyphenols are compounds found in plants and possess antioxidant properties. Antioxidants are substances that protect cells from oxidative damage caused by molecules called free radicals. Based on several types of findings, researchers did see evidence linking green and black tea to the slowing of prostate cancer cell growth. For more information go to <http://www.healthy.net/scr/news.asp?id=9014>.

Research Shows Green Tea Has Positive Anti-Obesity Effects and Even More

Over the last ten years, the notion that green tea consumption is healthy has received significant scientific attention, especially as it relates to the areas of cardiovascular disease and cancer. Because of the ever-growing obesity pandemic, the anti-obesity effects of green tea are being increasingly looked at in cell, animal, and human studies. Green tea,

green tea catechins, and epigallocatechin gallate (EGCG) have been demonstrated in cell and animal research to reduce adipocyte differentiation and proliferation, lipogenesis, fat mass, body weight, etc., as well as to increase beta-oxidation and thermogenesis. Human research has confirmed these findings. For additional confirmation, more research would help solidify what we know about green tea and since EGCG is regarded as the most active component of green tea, its specific effects on obesity should also be investigated in human trials. For more information go to *Molecular Nutrition & Food Research, Volume 50, February 2006*.

Derivative from Mangosteen Has Cytotoxic Effect on Certain Types of Cancer Cells

Results from a research study conducted at the Veterans General Hospital in Taipei, China suggest that a derivative from the fruit mangosteen may be potentially useful in the treatment of certain types of cancer. For more information, go to the *Journal Planta Medica, Volume 68, 2002*.

Multivitamin/Mineral Supplementation May Help Older Adults Reduce Their Risk of Chronic Disease

A recent research trial was conducted to study the effects of multivitamin/mineral supplements on older adults who are already consuming a nutrient-fortified diet. Eighty adults between the

ages of 50-87 participated in the eight-week double-blind, placebo controlled trial. The objective of the study was to determine whether a daily multivitamin/mineral supplement could improve the body's micronutrient status and the blood's antioxidant capacity. After measuring various nutrient blood levels and other blood indicators in the participants, researchers concluded that supplementation with a multivitamin formulated at about 100% Daily Value can increase the vitamin status in older adults and improve their micronutrient status to levels associated with reduced risk for several chronic diseases. For more information, go to the *Journal of the American College of Nutrition, Volume 19, 2000*.

Vitamin and Trace Element Supplementation Proven Beneficial

A recent research study in Canada looked at whether or not there were any benefits to taking a multivitamin and trace element supplement. Twenty-two people between the ages of 50-65 were given a supplement for one year and an equal group was given a placebo. The supplement group showed a stronger immune system response in a variety of tests. The total number of sick days taken by the placebo group was 24 versus 11 in the supplement group. Half the subjects on the placebo product were found to have low blood levels of at least one of the nutrients while no one in the supplementing group had deficiencies. For more information, go to *Nutrition Research, January 2002*.

Guarana Seed Extracts Possess Strong Antioxidant and Antimicrobial Activity

In a recent scientific research study conducted in Slovenia, extracts of guarana seed were analyzed by high performance chromatography and evaluated to determine their antioxidant and free radical-scavenging abilities. Guarana grows in Brazil and is known to boost energy levels, since its main ingredient is guaranine, a chemical identical to caffeine. Results of the study suggest that seed extracts of guarana possess strong antimicrobial and antioxidant properties, and they can therefore be considered for use in the food, cosmetic and pharmaceutical industries. For more information go to the *Journal Food Chemistry, Volume 104, Issue 3, pages 1258-1268, 2007*.

Preliminary Study Shows Proanthocyanidins Defend Brain Activity

At Bangalore University's Department of Zoology in India, scientists conducted a study involving rats which showed that proanthocyanidins (PA) consumed in a moderately low quantity provides antioxidant protection of the brain. Researchers concluded that PA may have a potent role in enhancing cognition in older rats. This is possibly exciting news for humans, however, more human research would provide a fuller understanding of a PA/human relationship. For more information, go to the *Medical Science Monitor, Volume 12, April 2006*.