



# IMAGE AWARENESS WELLNESS INSTITUTE

Literature Review April 2007

1271 HIGH STREET, AUBURN, CA 95603 • PHONE (530) 823-7092 • ORDER LINE (800) 359-6091  
HOURS: TUES. – FRI. 10 A.M. – 4 P.M. • E-MAIL: MAIL@IMAGEAWARENESS.COM WEB: WWW.IMAGEAWARENESS.COM

April 2007

Volume 3 : Issue 4



## THE HEART AND FISH OIL SUPPLEMENTATION

This study demonstrated that the heart tissue is a major site for accumulation of EPA and DHA fats from fish oil. The beneficial fats accumulated over time and reached maximum levels after about 30 days. The fish oils displaced arachidonic acid which promotes inflammation and the tendency of blood to clot.

A significant aspect of this study was the fact that supplementation with flax oil was clearly inferior to fish oil. The flax oil only slightly increased EPA levels and did not increase DHA levels at all. This confirms earlier studies which have repeatedly shown that flax oil is an ineffective means of increasing tissue levels of EPA and DHA.

EPA is a major fountainhead for anti-inflammatory prostaglandins or tissue hormones in the human body. It is also very effective at displacing

arachidonic acid from cell membranes. Arachidonic acid is a powerful inflammatory compound which shortens the lives of laboratory animals when it is fed to them.

DHA is a primary building block of nerve tissue. Healthy nerve function is particularly important for the day to day beating of the heart. The ease with which DHA levels were elevated in heart tissue suggests that fish oil supplementation may be an effective means of regulating and normalizing the rhythmic activity of the heart.

This study was conducted by feeding patients fish oil prior to cardiopulmonary bypass surgery then conducting an analysis of the heart tissue after surgery.

The authors concluded, "The results of the present study show that dietary omega-3 fatty acids are rapidly incorporated into human myocardial phospholipids at the expense of arachidonic acid during high-dose fish oil supplementation."

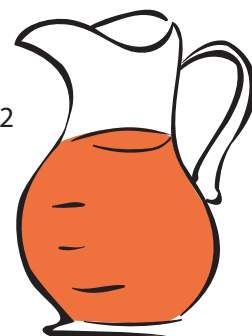
GNLD's new Salmon Oil Plus is an excellent means of supplementing with fish oil. The high potency concentrate of fish oil delivers approximately the same amount of fish oil as older capsules within a capsule half the size. The product also has a standard of no detectable pollutant levels. This is important as fish and fish oils can be contaminated with a number of pollutants.

## REFERENCE

Metcalf RG, James Muetal, "Effects of fish-oil supplementation on myocardial fatty acids in humans," *Am J Clin Nutr*, 2007; 85(5): 1222-1228.

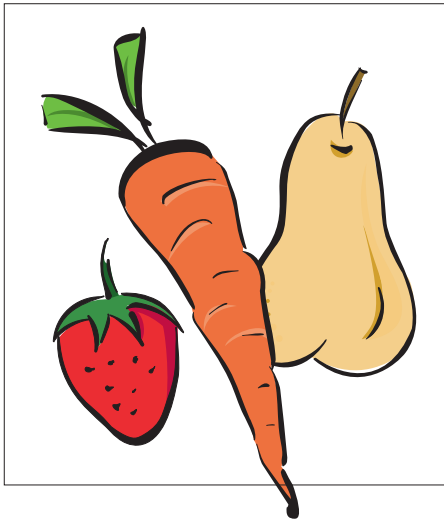
## LEG ULCERS AND VITAMIN C

This study found that older patients (mean age 77.2 years) with leg ulcers had significantly lower vitamin C levels than did controls even though more of



the controls smoked. Vitamin C is a key structural component of connective tissues. Lack of the vitamin weakens connective tissue and allows it to tear. One of the characteristics of scurvy is that old wounds which have healed break open. The teeth of someone with scurvy become loose in the jawbone and will eventually fall out.

Vitamin C and flavonoids are important supplements for strengthening all tissues of the body, especially the blood vessels. As we age connective tissue tends to weaken resulting in easy bruising under the skin. This bruising can reflect susceptibility to damage in other tissues including the brain and heart which could be serious or life threatening.



Supplemental vitamin C with flavonoids may be a valuable preventive measure against brain deterioration and heart disease as we age.

Vitamin C has a short half-life of about 30 minutes in the blood. To maintain optimal blood and tissue levels use GNL Super C which slowly releases its vitamin C over a period of hours. Super C also contains a healthy dose of citrus flavonoids which improve absorption and retention of vitamin C in the tissues.

#### REFERENCE

Lazareth I, Hubert Setal, "Vitamin C Deficiency and leg ulcers. A case control study," *J Mal Vasc*, 2007 Apr 30; [Epub ahead of print].

### RESISTIN AND VITAMIN C

Resistin is a highly significant new hormone discovered in 2001. This hormone is secreted by fat cells. The name derives from the fact that when the hormone is injected into animals it results in insulin resistance. This hormone also up regulates inflammation explaining the association between obesity, insulin resistance, and inflammatory disease.

This study showed that supplementation with 2 grams of vitamin C per day resulted in substantial reductions in the levels of resistin. Antioxidant levels of obese people tend to be low. This study provides evidence that significantly increasing the intake of vitamin C may pro-

vide substantial benefit for those with elevated resistin levels.

#### REFERENCE

Bo S, Ciccone G, et al, "Efficacy of antioxidant treatment in reducing resistin serum levels: a randomized study," *PLoS Clin Trials*, 2007; 2(5): e17.

### TINNITUS

A question which I am asked with increasing frequency is what can be done for ringing in the ears. Due to the increasing exposure to loud sounds damage to hearing is taking place with increasing frequency.

This study tested the effectiveness of supplementation with phospholipids and antioxidants on ringing of the ears. The mean age of the test subjects was 45 years. The antioxidants employed were vitamin C, vitamin E, and carotenoids (beta-carotene).

The supplementation greatly reduced the intensity of the tinnitus and the discomfort associated with it. Testing indicated reductions in free radical oxygen species which indicated less damage was probably taking place in the inner ear.

One of the great things about this study was the use of multiple antioxidants. Antioxidants generally work as a team. The greater the variety of antioxidants available, the more efficiently the antioxidant mechanisms in the body will work.

Damage to the ear can become irreversible, but the program is certainly worth a try. Supplements which might be helpful would include Tre-en-en, Lecithin, Super C, Vitamin E Complex, and Carotenoid Complex.

#### REFERENCE

Savastano M, Brescia G, et al, "Antioxidant therapy in idiopathic tinnitus: preliminary outcomes," *Archives of Medical Research*, 2007, 38(4): 456-9.

### COLON CANCER AND FISH

This study found that those with the highest intake of omega-3 fatty acids from fish had a 26% reduced risk of colorectal cancer and a 44%

reduced risk of cancer at the distal end of the colon. It appears that what is good for one part of the body is beneficial for other parts as well.

#### REFERENCE

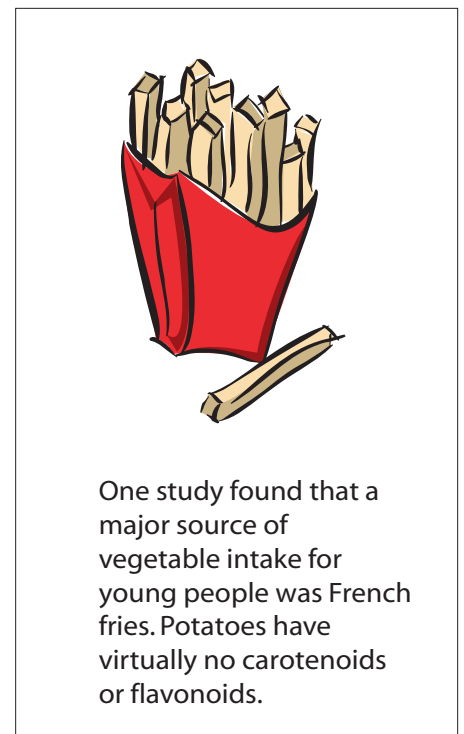
Kimura Y, Kono S, et al, "Meat, fish and fat intake in relation to subsite-specific risk of colorectal cancer: The Fukuoka Colorectal Cancer Study," *Cancer Sci*, 2007; 98(4): 590-7.

### RESPIRATORY PROBLEMS

Asthma and bronchial conditions are becoming epidemic in our society. This is probably due to a combination of nutrient deficiencies and air pollution.

In this study of 12th graders low intake of fruit was found to increase the risk of bronchial problems by 36 percent. Low intake of omega-3 fats increased bronchial symptoms by 37 percent. Omega-3 oils also decreased wheezing by 34% and risk of asthma by 68%. Among smokers low vitamin C intake was associated with respiratory problems.

The lungs are particularly susceptible to oxidative damage due to the fact that they are exposed to air with its high oxygen levels and toxic pollutants. Adequate intake of carotenoids, flavonoids, vitamin C,



One study found that a major source of vegetable intake for young people was French fries. Potatoes have virtually no carotenoids or flavonoids.

and omega-3 oils decreases oxidative stress that contributes to respiratory problems.

Nature's best source of carotenoids and flavonoids is fresh fruits and vegetables. Young people have been observed to consume far below optimal intake of fruits and vegetables. One study found that a major source of vegetable intake for young people was French fries. Potatoes have virtually no carotenoids or flavonoids. In addition potatoes are treated with sprouting inhibitors which have been demonstrated to antagonize the functioning of vitamin B6, an important nutrient for normal respiration.

The GNLD Vita-Gard provides the valuable carotenoid and flavonoid antioxidant protection of fruits and vegetables for young children who fail to consume adequate quantities of these nutrients in their diets.

#### REFERENCE

Burns JS, Dockery DW, "Low dietary nutrient intakes and respiratory health in adolescents," *Chest*, 2007 May 2; [Epub ahead of print].

## CAROTENOIDS AND MUSCLE MASS

Most of us do not think of carotenoids as having the ability to preserve muscle strength.



Muscles deteriorate as we age due to the interaction between free radical oxygen and muscle tissues. All oxidative processes accelerate as we age.

Sarcopenia may be thought of as the age related loss of muscle mass and strength. Research suggests that this process is accelerated by oxidative damage and reduced

by adequate intake of carotenoids. These observations are based on the fact that when carotenoid levels in the blood are low muscle mass and strength appear to be lower than when the blood contains healthy carotenoid levels.

Loss of muscle mass is significant in the elderly. Failing strength leads to falls which can result in broken bones with the complications which can result.

#### REFERENCE

Semba RD, Lauretani F, et al, "Carotenoids as protection against sarcopenia in older adults," *Archives of Biochemistry and Biophysics*, 2007; 458(2): 141-145.

## OSTEOPOROSIS

The use of a daily multiple vitamin was demonstrated to increase bone density in an elderly population (average age 80). This was a randomized, double blind, placebo controlled study--the kind that the doctors like to see. The potency of the supplement was not strong. It is worthwhile to remember that a wide variety of nutrients beyond calcium are necessary for healthy bone building. The multiple vitamin the elderly were given raised blood levels of vitamin D, folic acid, and vitamin B12. All of these nutrients are often deficient in elderly individuals and these deficiencies contribute not only to osteoporosis, but a number of other health problems.

#### REFERENCE

Grieger JA, Nowson CA, et al, "Effect of multi-vitamin on vitamin D status and heel ultrasound bone density in Australian aged care residents," *International Congress Series*, 2007; Volume 1297: 109-119. Proceedings of the International Symposium on Nutritional Aspects of Osteoporosis, 4-6 May 2006, Lausanne, Switzerland.

## BREAST CANCER AND OMEGA-3

This is the kind of study I find fascinating because we get down to the level of cellular functioning. Cells were examined to determine if breast cancer existed. The research-

ers also conducted studies of the red blood cells for their fatty acid content.

Researchers found a significant inverse correlation between the levels of omega-3 fats in red blood cells and the risk of developing breast cancer. The most critical omega-3 fat proved to be EPA or eicosapentaenoic acid, the omega-3 fat which functions in the body as a powerful anti-inflammatory agent.

At some point the medical community is going to have to switch over to nutritional assessments as a means of evaluating risk for development of disease and as a guide for treatment. These tests are often currently available, although they are expensive.

#### REFERENCE

Shannon J, King IB, et al, "Erythrocyte fatty acids and breast cancer risk: a case-control study in Shanghai, China," *Am J Clin Nutr*, 2007; 85(4): 1090-1097.

## WEIGHT GAIN AND NUTRITION

This study found that low levels of micronutrients were more common in obese and overweight individuals than among normal individuals. This raises the chicken and egg conundrum, "Which came first, the chicken or the egg?"

Lack of micronutrients creates hidden hungers in the cells contributing to overeating. Our body wants to eat until our nutritional requirements are met. High calorie, low nutrient foods can contribute to overeating in this way.

It is also true that as we gain weight additional strains are placed on the body. Excess body fat is particularly difficult on fat soluble antioxidants like carotenoids and vitamin E.

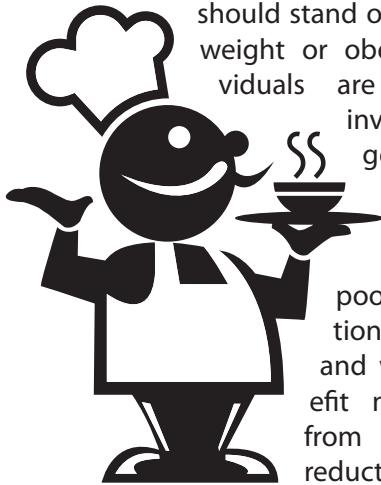
Whichever is the case one point





## IMAGE AWARENESS WELLNESS INSTITUTE

1271 HIGH STREET, AUBURN, CA 95603  
PHONE (530) 823-7092 ORDER LINE (800) 359-6091  
E-MAIL: MAIL@IMAGEAWARENESS.COM  
VISIT OUR WEBSITE! [WWW.IMAGEAWARENESS.COM](http://WWW.IMAGEAWARENESS.COM)



should stand out. Overweight or obese individuals are almost invariably going to be suffering from poor nutritional status and will benefit not only from caloric reduction, but also from nutrient dense diets and generous nutritional supplementation.

### REFERENCE

Kimmons JE, Blanck HM, et al, "Associations between body mass index and the prevalence of low micronutrient levels among US adults," *Med-GenMed*, 2006; 8(4): 59.

### FISH OIL AND COGNITIVE DECLINE

This study found that higher intake of fish oils significantly reduced the risk of cognitive decline particularly among individuals with high blood pressure and elevated blood fats. Verbal fluency was significantly improved by a higher intake of fish oils.

The brain is built largely with omega-3 fats EPA and DHA. It should not be surprising that if we supply the body the building materials it needs to build healthy brain cells our brains will work more efficiently as we age.

The internal synthesis of these fats declines with age meaning that increased dietary intake becomes more important as we age. Elderly individuals often suffer with impaired digestion and absorption of nutrients from the foods they eat. This can be remedied by the use of digestive aids.

### REFERENCE

Beydoun MA, Kaufman JS, et al, "Plasma n-3 fatty acids and the risk of cognitive decline in older adults: the Atherosclerosis Risk in Communities Study," *Am J Clin Nutr*, 2007; 85(4): 1103-1111.

### MAGNESIUM AND PMS

This study found that symptoms of PMS were significantly reduced after magnesium supplementation. Magnesium deficiency is believed to affect as much as 80% of the United States population. It is of interest that pharmaceutical firms are now developing patentable forms of this essential mineral to use in the treatment of PMS.

### REFERENCE

"Pilot study of the efficacy and safety of a modified-release magnesium 250 mg tablet (Sincromag) for the treatment of premenstrual syndrome," Quaranta S, Buscaglia MA, et al, *Clin Drug Investig*, 2007; 27(1): 51-8.

### REMOVAL OR ADDITION TO THIS NEWSLETTER

If you wish to be removed from this health-letter simply send us an email requesting to be removed. If you wish to add an email address send us the address with a request to be added.

### WEB RESOURCES

[www.yourbodysignlanguage.com](http://www.yourbodysignlanguage.com)  
[www.imageawareness.com](http://www.imageawareness.com)

### DISCLAIMER

This publication contains the opinions and ideas of its author. It is intended to provide helpful and informative material on the subjects addressed in the publication. It is provided with the understanding that the author and publisher are not engaged in rendering medical, health, or any other kind of personal professional services in this newsletter. The reader should consult his or her medical, health or other competent professional before adopting any of the suggestions in this newsletter or drawing inferences from it.

The author and publisher specifically disclaim all responsibility for any liability, loss, or risk, personal or otherwise, which is incurred as a consequence, directly or indirectly, of use and application of any of the contents of this newsletter.