Omega 3

EPA and DHA

"essential fatty acids"

In September 2004 the FDA acknowledged the value of EPA and DHA.

It is recommended that a physician be consulted before taking any supplements. The statements contained herein have not been evaluated by the FDA. These products are not intended to diagnose, treat, cure, or prevent any disease.

Friday, April 13, 2007

Fish Oils Delay Cognitive Decline, Studies Find

Omega-3 fatty acids also protected against loss of verbal fluency

(HealthDay News) -- Omega-3 fatty acids from fish may help prevent age-related cognitive decline, according to two new studies.

In one study, Dutch researchers examined the diet and cognitive function of 210 men, ages 70 to 89, who did not have Alzheimer's disease. The men were assessed in 1990 and again in 1995.

The researchers concluded that consumption of approximately 400 milligrams of omega-3 fatty acids per day (equivalent to eating six servings of lean fish per week or one serving of fatty fish per week) protects against cognitive decline.

In the other study, American researchers looked at omega-3 consumption and cognitive decline in 2,251 white males, ages 50 to 65, who were initially assessed between 1987 and 1989. The men were checked again three and nine years later.

The study found no association between baseline levels of omega-3 fatty acids in the men and overall cognitive decline. However, an analysis of specific types of cognitive decline did find that higher levels of omega-3 fatty acids were associated with protection against loss of verbal fluency.

This association was particularly strong in men with high blood pressure and dyslipidemia (disruption in the amount of lipids in the blood) but was not evident in men with major depression.

The studies were published in this month's *American Journal of Clinical Nutrition*. The authors of an accompanying editorial recommended that clinical trials be conducted to determine the effect of dietary fish, fish oil or both in elderly people at risk of cognitive decline and Alzheimer's disease.

More information

The U.S. National Library of Medicine has more about omega-3 fatty acids.
-- Robert Preidt

SOURCE: *American Journal of Clinical Nutrition*, news release, April 9, 2007

Oct. 21, 2002 -- It may sound fishy, but researchers say taking a daily fish-oil supplement may boost the effectiveness -- or even replace -- antidepressants for treating depression in some people.

In a new study, people who added a daily dose of omega-3 fatty acids to their regular antidepressant treatment had significant improvement in symptoms, including anxiety, sleeping problems, sadness, decreased sexual desire, and suicidal tendencies.

Although there are many effective treatments for depression, most only work in a limited number of patients or have significant side effects that prompt users to stop taking them. That's inspired researchers to look for new ways to treat the mental illness or increase the effectiveness of existing treatments.

Previous studies have suggested that depressed people have lower-than-normal levels of a fatty acid known as **EPA** (eicosapentaenoic acid), which plays an important role in maintaining normal brain function.

In this study, the researchers examined the effectiveness of adding various dosages of EPA supplement to normal drug therapy in 70 people with persistent depression that was not responding to standard antidepressants. The results appear in the October issue of the Archives of General Psychiatry.

Researcher Malcolm Peet, MD, of Swallownest Court Hospital in Sheffield, England, and colleagues found that patients who took the lowest, 1-gram daily, fish-oil dose showed significant improvements on all major measures of depression compared with those who took a placebo. In particular, 69% of the patients who took the 1-gram dose had a 50% reduction in their symptoms, compared with only 25% of those who took a placebo.

A 2-gram dose showed little effect, but those taking the highest, 4-gram, dose showed a trend toward improvement in symptoms. The researchers say larger studies are needed to confirm these effects.

The omega-3 fatty acid may work to ease depression by improving the effectiveness and absorption of existing medications, the researchers say. But they note that a limited number of their patients who are not on antidepressant therapy have seen improvements similar to those seen in this study through treatment with fish-oil supplements alone.

In addition, they say treatment with omega-3 fatty acid may be especially beneficial for depressed patients who are at risk for heart disease, in light of recent research about fish oil's heart-healthy effects.

Source: WebMD.com

The Importance of Pharmaceutical Grade Marine Lipids

By Dr. Murray

Introduction

In the last year, several landmark studies have once again highlighted the importance of the longer chain omega-3 fatty acids such as eicosapentaenoic acid (EPA) and docosahexanoic acid (DHA) found in fish. The reason why these fatty substances are so important revolve around their role in cellular membranes. A diet that is deficient in omega-3 fatty acids, particularly EPA and DHA, results in altered cell membranes. Without a healthy membrane, cells lose their ability to hold water, vital nutrients, and electrolytes. They also lose their ability to communicate with other cells and be controlled by regulating hormones. They simply do not function properly. Cell membrane dysfunction is a critical factor in the development of virtually every chronic disease, especially cancer, diabetes, arthritis, and heart disease. Not surprisingly, long-chain omega-3 fatty acids have shown tremendous protective effects against all of these diseases.

Some conditions benefited more by long-chain omega-3 fatty acids than flaxseed oil:

- Aging (are you over 50?)
- Allergies
- Arthritis
- Asthma
- Attention deficit disorder
- Autoimmune diseases (e.g., rheumatoid arthritis, lupus, MS, etc.)
- Cancer (prevention and treatment adjunct)
- Depression
- Diabetes
- Eczema
- Elevated cholesterol or triglyceride levels
- Heart disease (prevention and treatment)
- Inflammatory conditions (e.g., ulcerative colitis, Crohn's disease)
- Menopause
- Pregnancy
- Psoriasis

Fish Oils vs. Flaxseed Oil

Although the body can convert alpha-linolenic acid, a short-chain omega-3 fatty acid, from flaxseed oil, it is much more efficient to get EPA and DHA from fish oils. Furthermore, there is evidence that many people, particularly many men, have a difficult time converting alpha-linolenic acid to EPA and DHA. Also, the long-chain omega-3 fatty acids, but not alpha-linolenic acid, are also transformed into regulatory compounds known as prostaglandins.

These compounds carry out many important tasks in the body. They regulate inflammation, pain, and swelling; they play a role in maintaining blood pressure; and they regulate heart, digestive, and kidney function. Prostaglandins also participate in the response to allergies, help control transmission of signals along the nerves, and help regulate the production of steroids and other hormones. Through their effects on prostaglandins and related compounds, long-chain omega-3 fatty acids can mediate many physiological processes making them useful in virtually every disease state as well.

My opinion on the superiority of longer-chain omega-3 fatty acids over alpha-linolenic acid is not new. I have always held that if manufacturers could solve some of the problems with commercial sources of EPA and DHA that I would wholeheartedly recommend them over flaxseed oil. The reason that I favored flaxseed oil over fish oils in some of my books (e.g., Encyclopedia of Natural Medicine) was because at the time the books were written there were MAJOR problems with fish oil supplements. These problems still persist in that most encapsulated fish oil products have been shown to contain very high levels of lipid peroxides, harmful contaminants, and heavy metals. Furthermore, because of the relatively low concentration of EPA and DHA in these products in order to produce therapeutic benefits people would have to consume 10 or more 1,000 mg capsules daily. Because of these factors, it simply made more sense to recommend flaxseed oil. However, a new development has changed my perspective a bit although I still think it makes great sense to utilize flaxseed oil on a daily basis as well.

Fish oil, mercury, and heart disease

Two highly publicized studies in 2002 demonstrated quite conclusively that fish consumption can reduce heart disease. The first article, published in the JAMA (Journal of the American Medical Association) showed that there was a clear relationship between dietary intake of fish and omega-3 fatty acids and the likelihood of developing coronary heart disease - the higher the omega-3 fatty acid intake, the lower the likelihood of coronary heart disease. This relationship was even stronger for coronary deaths. The second article, published in the New England Journal of Medicine, looked at omega-3 fatty acid levels in blood as opposed to diet. The investigators found a striking relationship between the blood level of omega-3 fatty acids present and the follow-up likelihood of dying from coronary heart disease.

The Latest Study

While fish oils may protect against heart disease, the latest study raises an important question - Is the benefit of eating fish counteracted by a higher intake of mercury? Mercury has been known to increase the risk of cardiovascular disease. Because fish intake is a major source of exposure to

mercury, the mercury content of fish may counteract the beneficial effects of its n-3 fatty acids. Results from another study published in the New England Journal of Medicine show that while higher body levels of fish oils were associated with a decreased risk for heart attacks, the higher the body mercury level the greater risk of a heart attack, Researchers concluded that the high mercury content of fish may diminish the protective effect of fish intake against heart disease.

The Solution

Using a pharmaceutical grade fish oil supplement is the perfect solution to people wanting the health benefits of fish oils without the mercury and other contaminants found in fish. It is estimated that the use of fish oil supplements may reduce overall cardiovascular mortality by as much as 45%. This effect is not related to a change in blood cholesterol levels. The favorable effect is seen very rapidly, usually by three months into the study. In contrast, cholesterol-lowering drugs do not usually show benefit until after a year or more of therapy. As compared to drug therapy, omega-3 fatty acids provide remarkable benefits, are entirely safe, and are inexpensive.

Key References:

Hu FB, Bronner L, Willett WC, et al. Fish and omega-3 fatty acid intake and risk of coronary heart disease in women. JAMA 2002;287:1815-21.

Albert CM, Campos H, Stampfer MJ, et al. Blood levels of long-chain n-3 fatty acids and the risk of sudden death. N Engl J Med 2002;346:1113-8.

Guallar E, Sanz-Gallardo MI, van't Veer P, Bode P, et al. Mercury, fish oils, and the risk of myocardial infarction. N Engl J Med 2002;347:1747-54.

Bucher HC, Hengstler P, Schindler C, Meier G. N-3 polyunsaturated fatty acids in coronary heart disease: a meta-analysis of randomized controlled trials. Am J Med 2002;112:298-304.

Recent Clinical Studies on Fish Oils

By Dr. Murray

In a previous newsletter (The Importance of Pharmaceutical Grade Marine Lipids 01:02:2003), I stressed that one of the most significant developments in nutritional medicine is the recent introduction of truly pharmaceutical grade fish oils. Over 600 clinical studies now exist that show the benefits of the omega-3 fatty acids EPA and DHA. In this newsletter I want to highlight three recent double-blind clinical trials that once again reinforce the importance of the long-chain omega-3 fatty acids in good health and modern medicine. The studies that I chose to review in this issue center around the importance of omega-3 fatty acids to proper brain function and development.

Omega-3 Fatty Acids and the Brain

If you have come to one of my lectures, undoubtedly you have heard me say that your brain is literally a vat of fat - so don't be upset when people call you a "fat head." Let them know, however, that your brain is likely functioning better than theirs because you are getting enough of the right fats. The type of fat that you consume in your diet and through supplementation determines the type of fat that you have in your brain. And, the type of fat that you have in your brain goes a long way in determining how well your brain functions.

The importance of omega-3 fatty acids to brain function relates to their role in the phospholipid composition of nerve cell membranes. While it is thought the cell is programmed to selectively incorporate the different fatty acids it needs to maintain optimal function, the lack of essential fatty acids (particularly the omega-3 oils) and excess of in saturated fats, margarine, cholesterol, and animal fatty acids leads to the formation of cell membranes which are much less fluid than normal.

A relative deficiency of essential fatty acids in cellular membranes substantially impairs cell membrane function. Since the basic function of the cell membrane is to serve as a selective barrier that regulates the passage of molecules into and out of the cell, a disturbance of structure or function disrupts homeostasis. Because the brain is the richest source of phospholipids in the human body and proper nerve cell function is critically dependent on proper membrane fluidity, alterations in membrane fluidity impacts behavior, mood, and mental function. Studies have shown that the physical properties, including fluidity, of brain cell membranes directly influences neurotransmitter synthesis, signal transmission, uptake of serotonin and other neurotransmitters, neurotransmitter binding, and the activity of key enzymes that break down neurotransmitters like serotonin, epinephrine, dopamine, and norepinephrine. All of these factors have been implicated in depression, attention deficit disorder, and other psychological disturbances.

Fish Oils Effective in Major Depression

Fish oils concentrated for EPA and DHA have been shown to have positive effects for patients with schizophrenia in several studies as well as in bipolar disorder (manic depression). Given the central role that these omega-3 fatty acids play in brain chemistry and nerve cell function, a double-blind study was conducted to evaluate their role in depression. Previous studies have shown quite convincingly that patients with depression have significantly low EPA and DHA in cell tissue contents (red blood cell membrane, plasma, etc.) and presumably their brain. This fact alone is probably reason enough to supplement with a pharmaceutical grade fish oil. However, now there is even more evidence. In the recent study, 28 patients with major depression were given a hefty dosage of omega-3 fatty acids (4.4 g EPA/2.2 g DHA) or placebo, on the top of their usual treatment, for 8 weeks. Evaluation of the subject with the Hamilton Rating Scale for Depression showed that those taking the fish oils a significantly decreased score compared to those in the placebo group ($P < 0.001$). These results are quite exciting and suggested that continued use may produce even greater benefit as there was a continued downward trend with time on the symptoms of depression.

Reference: Su KP, Huang SY, Chiu CC, Shen WW. Omega-3 fatty acids in major depressive disorder. A preliminary double-blind, placebo-controlled trial. Eur Neuropsychopharmacol 2003;13:267-71.

Fish Oils in Borderline Personality Disorder

This next study is one that I am particularly excited about. It showed fish oil supplementation to be very effective in improving borderline personality disorder (BPD). If you are not familiar with this term, it is used to describe a pervasive pattern of instability of interpersonal relationships, self-image, and mood, and marked impulsivity beginning by early adulthood. Some of the major indicators of BPD include the following:

- Relationships with others are intense but stormy and unstable with marked shifts of feelings and difficulties in maintaining intimate, close connections.
- Frantic efforts to avoid real or imagined abandonment.
- Markedly and persistently unstable self-image or sense of self
- Impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating).
- Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior
- Tremendous mood swings.
- Chronic feelings of emptiness.
- Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights).

- Transient, stress-related paranoia.

In the study, only EPA was used. I view that as a shortcoming given the importance of DHA to brain function. Nonetheless, in the study 30 women with BPD were given either 1 g of EPA or a placebo for 8 weeks. Detailed analyses using sophisticated measures found EPA to be superior to placebo in diminishing aggression as well as the severity of depressive symptoms. The authors of the study went so far as to conclude that EPA may be a safe and effective form of primary therapy for women with moderately severe borderline personality disorder.

The significance of this study is profound given that an estimated 6 million people in the United States are believed to suffer from symptoms of BPD. All told, this disorder touches an estimated 36 million lives counting spouses and children. If pharmaceutical grade fish oil can help BPD (and I believe that it does), it would be a godsend to many.

Reference: Zanarini MC, Frankenburg FR. Omega-3 fatty acid treatment of women with borderline personality disorder: a double-blind, placebo-controlled pilot study. Am J Psychiatry. 2003;160(1):167-9.

Can Fish Oils Make Kids Smarter?

EPA and DHA are critical for proper brain development - especially during the fetal and infant stage. In particular, there is a growth spurt in the human brain of the fetus during the last trimester of pregnancy and the first few months after birth that is characterized by a large increase in the cerebral content of DHA. This fact makes insuring adequate intake of DHA during pregnancy and breastfeeding absolutely essential. On a side note, do not rely on flax seed oil for accomplishing this goal as detailed research has shown that the capacity for elongation and desaturation of alpha-linolenic acid (18:3 n-3) to DHA is inadequate in both the mother and in the fetus and the newborn.

Did you know that breastfed infants are smarter and have higher IQs than formula fed infants? According to a large amount of research it is true and the availability of DHA to the developing brain is one of the key reasons. Just recently the FDA has allowed manufacturers of infant formulas to fortify their products with DHA.

A recent study tested the hypothesis that supplementing the maternal diet during pregnancy and lactation with DHA and EPA could benefit the fetus and the newborn infant by demonstrating greater cognitive function. In the study, a total of 341 pregnant women were supplemented with either omega-3 fatty acids (1200 mg DHA, 800 mg EPA) or corn oil from 18 weeks of pregnancy through completion of lactation, and the children were examined at 4 years of age with an intelligence test. All of the children evaluated had

been breastfed exclusively for the first three months. Results indicated that the group getting the DHA and EPA did in fact score considerable higher on the Mental Processing Composite of the K-ABC at 4 years of age as compared with children whose mothers had taken corn oil.

Think about the ramifications of helping children get a head start in life by making sure that their brains have all of the important nutrients and building blocks it needs to develop properly - including DHA. Sadly, low levels of DHA during fetal and infant brain development may be one of the critical reasons why we are seeing so many children of psychoactive drugs for attention deficit disorder, depression, obsessive compulsive disorder, and other psychological illnesses.

Reference: Helland IB, Smith L, Saarem K, Saugstad OD, Drevon CA. Maternal supplementation with very-long-chain n-3 fatty acids during pregnancy and lactation augments children's IQ at 4 years of age. Pediatrics 2003;111:e39-44.

FISH PROTECT THE BRAIN

Daniel G. Amen, MD, Distinguished Fellow, American Psychiatric Assoc.

The brain is everywhere there is news about people, especially in the fish oil we take.

Louisiana State University scientists say they have discovered how the fatty acids found in fish oil help protect the human brain from the type of cognitive decline associated with Alzheimer's disease.

Their study shows that DHA (docosahexaenoic acid), an omega-3 fatty acid found in coldwater fish such as mackerel, sardines and salmon, reduces levels of a protein known to cause damaging plaques in the brains of Alzheimer's patients.

What's more, the researchers discovered that a derivative of DHA, which they dubbed "neuroprotectin D1," is made in the human brain. That natural substance plays a key role, too, in protecting the brain from cell death, the study showed.

The study was released online Sept. 8, in advance of its Oct. 1 publication in The Journal of Clinical Investigation.

Studies show DHA is highly concentrated in the brain and retina of the eye. In earlier research, this team discovered that neuroprotectin D1 is produced in cells that are critical for vision. They wondered whether the brain might do the same.

The researchers examined specific areas of the brains of people with Alzheimer's, including an area critical to memory formation and cognition. That area showed huge -- 20-25-fold -- decreases in neuroprotectin D1, as compared with other areas in the same human brain.

Furthermore, in cell studies designed to mimic the effects of aging, the team found that adding DHA reduced the secretion of toxic beta amyloid proteins and, at the same time, spurred production of neuroprotectin D1.

The research team concluded that neuroprotectin D1 induces a gene expression program that is neuroprotective, meaning that it promotes survival of brain cells.

Since DHA sources are safe, cheap, available and clinically proven to fight heart disease, the nation's number one killer, I advise families of Alzheimer's patients to make sure their loved ones get the minimum recommended DHA from their diet or supplements. Experts recommend 200 to 300 milligrams per day -- a far greater amount than the 60 to 80 milligrams daily that Americans typically get in their diet. 9-21-2005

Fish oils shown to boost pre-school learning skills

July 20, 2005

The learning ability of pre-school children improves significantly when they take a daily dose of fish oils, according to the first results of a new study being carried out in the north of England.

The early-intervention trial is an extension of the Sure Start project taking place in County Durham and follows on from the recent groundbreaking Durham Schools Trial.

In the current trial 60 children aged between 20 and 36 months have been given a daily fish oil supplement. Although the year-long trial is still at the early stages, initial findings have show positive results for the children's concentration and behaviour.

"The performance of almost 60% of the children has improved dramatically," said Dr Madeleine Portwood, educational psychologist for Durham Local Education Authority. "We saw children whose learning skills went from six months below their chronological age to age equivalent in just three months.

"Some two year-olds went from having a vocabulary of 25 single words to being able to use whole sentences, while others were able to sit down and concentrate for the first time in their lives."

February 24, 2004

Most strokes and heart attacks are triggered by atherosclerosis; the gradual increase of cholesterol on the interior walls of arteries. And while the risk for atherosclerosis is known to run in families, the specific genetic markers have eluded researchers.

This new study - a combined effort from the University of Southern California and the University of California at Los Angeles - sprang from animal research at UCLA, which indicated that a variation of a gene called 5-lipoxygenase (ALOX5; associated with inflammation) might be linked to atherosclerosis risk.

The California team used data collected from the Los Angeles Atherosclerosis Study, an ongoing research project that follows the cardiovascular health records of nearly 500 Southern California utility workers. Three factors were examined: 1) dietary details over a period of 18 months, 2) thickness of the carotid artery walls (measured with ultrasound on each subject), and 3) presence of the ALOX5 gene variation (discovered in six percent of the subjects).

The researchers found that among those with the ALOX5 variation, the buildup of arterial plaque was about 18 percent more advanced than among those with the common type of the gene. Furthermore, the dietary records revealed that an intake of omega-6 fatty acids "significantly enhanced" the formation of plaque among those with the gene variation, while a greater intake of omega-3 fatty acids "blunted the effect."

More research is needed to establish the importance of the ALOX5 variation in predicting atherosclerosis. Nevertheless, this could be a breakthrough in heart disease research. Study co-author Hooman Allayee, Ph.D., told Science Daily that their conclusions suggest that ALOX5 could be used as a genetic marker for heart disease, "and should lead to improved diagnosis, prevention and treatment for atherosclerosis."

Heart's desire

Previous studies have shown that diets rich in omega-3 fatty acids may also lower triglyceride levels, reduce platelet aggregation or clumping, and improve the functioning of cells that line the heart and blood vessels.

In the e-Alert "Fish in Fashion" (4/10/02), I told you about a study that examined the effects of omega-3 fatty acids on women's heart health. Analyzing 16 years of data, collected from more than 120,000 women in the Nurses' Health Study, researchers found that women in the group with the highest omega-3 intake had about half the risk of developing coronary heart disease compared to women in the group with the lowest intake. Overall, the relative risks of developing heart disease, dying from a cardiac event, or suffering a non-fatal heart attack all decreased steadily as fish consumption and omega-3 fatty acid intake increased.

In another study, published in the journal Circulation, researchers tested the effects of fish oil and vitamin E on people who had suffered a heart attack in the three months previous to the test period. More than 11,000 men and women were randomly divided into four groups: one group received one gram of fish oil each day, one received 300 mg of vitamin E each day, the third group took both fish oil and vitamin E, and the fourth took a placebo.

The participants in all four groups were particularly vulnerable to sudden cardiac death because of their recent heart attacks. But after just four months, the fish oil group already demonstrated a significant reduction in risk. In fact, participants who took fish oil had about half the incidence of sudden death compared to participants in the other groups.

Fish story

Longtime e-Alert readers know that the easiest way to increase consumption of omega-3 fatty acids is by increasing your fish intake; dark meat fish like mackerel, salmon, sardines, bluefish, and swordfish contain the most concentrated sources, with an average of 1.51 grams of omega-3s per serving. Most other fish, including canned tuna, provide about .45 grams per serving, while shrimp, lobster and scallops contain about .32 grams per serving.

But as the Circulation study shows, fish oil supplements also provide an effective source of omega-3. And with the disturbing reports we're hearing more often these days about mercury levels in fish, supplementing with fish oil might be the safest way to go. Here in Baltimore, a local television station recently purchased ten samples of fresh swordfish and tuna steaks from several stores in the area, and sent the samples to a certified lab for testing. Nine out of the ten samples had mercury levels higher than the FDA's recommended safe standard, and four of the

samples had mercury levels that were more than twice as high as the standard. (And that's assuming that you feel comfortable with the FDA's standard!)

Unfortunately, some fish oil supplements can also contain traces of mercury and other pollutants. To insure the highest quality of fish oil, look for pharmaceutical grade fish oil that's been molecularly distilled. The molecular distillation process effectively separates toxic heavy metals from the oil.

Also note that you probably don't need mega-doses of fish oil. The one-gram per day used in the Circulation study is a relatively low dose. Nevertheless, with just a few months of use it provided protection to a highly vulnerable population.

"Recent research suggests that cold water fish such as salmon, mackerel, and tuna contain Omega 3 fatty acids which help reduce heart disease."
- *Heart Attack – What's Ahead* by Pritchett & Hull Associates, Inc., p. 42

U.S. Government study acknowledges health benefits of omega-3 fatty acids

According to a detailed evaluation of the scientific evidence, the United States Agency for Healthcare Research and Quality concluded that the long chain omega-3 fatty acids, either from fish consumption or supplementation, significantly reduce the risk of heart attacks and strokes. The review also found other evidence indicating that fish oil supplementation can help lower high blood pressure slightly, reduce risk of coronary artery re-blockage after angioplasty, increase exercise capability among patients with clogged arteries, and reduce the risk of irregular heart beats—particularly in individuals with a recent heart attack.

Reference: Wang C, Chung M, Lichtenstein A, Balk E, Kupelnick B, DeVine D, Lawrence A, Lau J. Effects of omega-3 fatty acids on cardiovascular disease. Agency for Healthcare Research and Quality Pub. No. 04-E009-2, March 2004.

Omega-3 index emerges as the most significant marker for heart disease

When researchers measure the level of the long chain omega-3 fatty acids EPA and DHA within red blood cells they found that they had discovered one of the most significant predictor of heart disease. This laboratory value was termed the Omega-3 Index. An Omega-3 Index of =8% was associated with the greatest protection, whereas an index of =4% was associated with the least. The Omega-3 Index was shown to be the most significant predictor of coronary artery disease compared to C-reactive protein; total, LDL, or HDL cholesterol; and homocysteine. Researchers subsequently determined that a total of a combined 1,000 mg of EPA and DHA daily is required to achieve or surpass the =8% Omega-3 Index target.

Reference: Harris WS, Von Schacky C. The Omega-3 Index: a new risk factor for death from coronary heart disease? Prev Med. 2004 Jul;39(1):212-20.

"Omega 3 fatty acids benefit the heart of healthy people and those at high risk of – or who have – cardiovascular disease."
– American Heart Association

Miracle 'Fatty Acid':
It Prevents Heart Attack and Stroke –
and Even Cures Depression!

An important message to NewsMax readers:


Dr. Russell Blaylock

Imagine a simple fat that is found in nature. It costs next to nothing and you need no prescription for it – yet it is considered a miracle panacea.

For centuries, the omega-3 fatty acid has played just that role in many societies.

But modern medicine has largely ignored this wonder substance – even though its absence in Western diets has been linked to heart disease, stroke, brain diseases like Alzheimer's and worse yet – suicidal depression.

Yes, this basic yet mysterious fatty acid found in plants, fish, algae, certain eggs and flaxseed could be the missing piece to your health puzzle.

In the latest edition of the ***Blaylock Wellness Report*, "Omega-3: Nature's Miracle Panacea,"** Dr. Russell Blaylock blows the lid off of the medical establishment's silence regarding Omega-3.

In his exclusive report, you will discover the many ways the extraordinarily potent Omega-3 fat can powerfully improve just about every aspect of your well-being.

Are you sick of money-hungry doctors and pharmaceutical companies plying you with suspicious medicines that are often accompanied by side effects nastier than the diseases they are meant to treat?

In many cases, Dr. Blaylock has the answer: Omega-3.

He says a variety of Omega-3-rich foods and supplements can:

- Help treat bipolar disorder
- Restrain anger, anxiety and fear
- Block depression
- Counteract a variety of autoimmune diseases
- Prevent and treat cancer
- Inhibit stroke
- Reduce arrhythmia
- Combat brain diseases like Alzheimer's and Parkinson's
  AND
- Cut the risk of heart attack

There's one major "problem" with Omega-3: It's cheap, easily accessible, completely natural and proven to be effective in treating an entire spectrum of diseases.

So what's the problem, you ask?

Well, your doctor can't bill you for it and the pharmaceutical companies don't get a dime when you use it!

FISH OIL AND HEART ATTACKS

By Daniel G. Amen, M.D.

October 12, 2006

I have long been an advocate of daily supplementation of fish oil for promoting both brain and cardiac health. The research is impressive – people who use fish oil as regular components of their diet have improved brain and cardiac function.

…

But, the American medical community, in some ways, is lagging behind other countries in recognizing and embracing the true benefits high-quality fish oil can provide.

Here's an excerpt from a recent article in the NY Times…

> **In Europe it's fish oil after heart attacks, but not in U.S.**
> By Elisabeth Rosenthal
>
> ROME — Every patient in the cardiac care unit at the San Filippo Neri Hospital who survives a heart attack goes home with a prescription for purified fish oil, or omega-3 fatty acids. "It is clearly recommended in international guidelines," said Dr. Massimo Santini, the hospital's chief of cardiology, who added that it would be considered tantamount to malpractice in Italy to omit the drug.
>
> In a large number of studies, prescription fish oil has been shown to improve survival after heart attacks and to reduce fatal heart rhythms. The American College of Cardiology recently strengthened its position on the medical benefit of fish oil, although some critics say that studies have not defined the magnitude of the effect.
>
> But in the United States, heart attack victims are not generally given omega-3 fatty acids, even as they are routinely offered more expensive and invasive treatments, like pills to lower cholesterol or implantable defibrillators. Prescription fish oil, sold under the brand name Omacor, is not even approved by the Food and Drug Administration for use in heart patients.

> “Most cardiologists here are not giving omega-3’s even though the data supports it — there’s a real disconnect,” said Dr. Terry Jacobson, a preventive cardiologist at Emory University in Atlanta. “They have been very slow to incorporate the therapy…”

I believe the American medical community will continue to move in the direction of using high-grade fish oil in the treatment of a variety of ailments. We know those who use them have a decreased risk of brain problems, like Alzheimer’s disease, and are less likely to have cardiac issues. Ask your physician if he or she takes fish oil supplements – my guess is they do.

MORE GOOD NEWS ABOUT FISH OIL

Yet another study is indicating that fish oil is beneficial for long-term brain health. This article from a recent NY Times report points to a lower risk of Alzheimer's' disease for those who regularly incorporate fish oil into their diet…

A substance found in fish oil may be associated with a significantly reduced risk of developing Alzheimer's and other dementias, researchers reported yesterday. The scientists found that people with the highest blood levels of an omega-3 fatty acid called docosahexaenoic acid, or DHA, were about half as likely to develop dementia as those with lower levels. The substance is one of several omega-3 polyunsaturated fatty acids found in fatty fish and, in small amounts, in some meats. It is also sold in fish oil or DHA supplements. The researchers looked for a reduced risk associated with seven other omega-3 fatty acids, but only DHA had any effect.

The study, in the November issue of The Archives of Neurology, used data from the Framingham Heart Study to follow 899 initially healthy participants, with a median age of 76, for an average of more than nine years. The scientists assessed DHA and fish intake using a questionnaire and obtained complete dietary data on more than half the subjects. They took blood samples from all the participants to determine serum levels of fatty acids.

Ninety-nine people developed dementia over the course of the study, including 71 cases of Alzheimer's disease. The average level of DHA among all the participants was 3.6 percent of all fatty acids, and the top 25 percent of the population had values above 4.2 percent. People in this top one-quarter in DHA levels had a 47 percent reduced risk of developing dementia, even after controlling for body mass index, diabetes, hypertension, smoking status and other known or suspected risks. Risk reduction was apparent only at that top level of DHA — those in the bottom three-quarters in DHA level showed no detectable difference in risk.

People who ate two or more servings of fish a week reduced their risk for dementia by 39 percent, but there was no effect on the risk for dementia among those who ate less than that. The finding that DHA alone reduces risk, the authors write, is consistent with earlier data showing high levels of DHA in healthy brain tissue and low levels in the brains of people with Alzheimer's disease.

By Nicholas Bakalar, The New York Times
Dec. 2006

ORDERING

The highest quality Omega 3 Fish Oil and Red Yeast Rice I've found is from N3 Oceanic, Inc.

Their Omega 3 oil is called **Res-Q 1250 Capsules**

Their Red Yeast Rice is called **Res-Q LDL-x2**

The cheapest place to buy their products is:

Omega For Life
www.omegaforlife.com
888-784-3903

I took and still take 3 capsules of Omega 3 oil twice a day (6 per day) which is a total per day of about 5000 mg of Omega 3 per day, plus one capsule of Red Yeast Rice twice a day, which is 2400 mg of Red Yeast Rice per day.

I don't make a dime off this product. It cleaned out my arteries and I simply want everyone to know about it.

Forget the cheapo brands sold at Costco and Sam's Club, etc. You have to take a whole lot more capsules to get the same amount of Omega 3, and you'll end up smelling like fish. Been there. Done that. No thanks.