

Adding highly concentrated n-3 PUFAs to standard treatment in the secondary prevention after MI appears to be cost-effective in the 5 countries studied.

Omega-3 Miracle Report: My Story

Omega-3 Miracle Report: My Story
Plus Scientific Abstracts from NIH and Other
Medical Studies

BY



Garey J Simmons, CHC, CEO

Omega-3 Miracle Report Plus Scientific Abstracts Pulled from
NIH and Other Medical Studies



WEBMD

WebMD: "The benefits of omega-3s include reducing the risk of heart disease and stroke while helping to reduce symptoms of hypertension, depression, attention deficit hyperactivity disorder (ADHD), joint pain and other rheumatoid problems, as well as certain skin ailments. Some research has even

shown that omega-3s can boost the immune system and help protect us from an array of illnesses including Alzheimer's disease."

The reason I am alive is because I take Omega-3 fish oil capsules every day. But it wasn't always that way.



There Is A Story Behind This Report

Looking back, I admit it. I was terrified. It was in June 2005, that I received some bad news from my doctor. I was, officially, at a very high risk for a stroke.

Specifically, my triglycerides were in the red zone – the exact count was 508. That's actually not the red zone – that's a completely separate zip code. Triglycerides above 150 are cause for concern – anything above 500, and you might as well have an ambulance sitting outside your house.

Along with that, my LDL (bad) cholesterol level was high, and my HDL (good) cholesterol level was low; my ratios were the stuff of scary movies. For years, I've looked forward to the day when my children would bring me my first grandkid... and now my doctor was telling me that,

unless I underwent radical changes,

I wasn't ever going to see my grandchildren. What sorts of changes did my doctor recommend? Pharmaceutical drugs – and I wasn't going near that stuff. When you read about all the

dangerous and nasty side effects of statin drugs, you'll understand why. I hadn't even taken an antibiotic in the past 30 years – I wasn't about to expose myself to these hardcore drugs that, as I later learned, only serve to mask and compound the problem anyway.

But I was determined to make some changes. That triglyceride number – 508 – became my motivation, my magic number. In life, sometimes there are little triggers; little keys that help you unlock big doors. 508 became my key, and it spurred me to action.

I began addressing 15 years of neglect. This led me to the secret of Omega-3s – a secret that may very well have saved my life that we'll discuss later – but I didn't get there immediately. At





the time, I was about 15 lbs overweight. I had a spare tire growing around my mid-section. My liver was not in

good shape from a bout of hepatitis I contracted while working as a missionary in India way back in 1976. When I

checked it out, an ultrasound revealed I had a fatty liver! Enough was enough.

Wake Up Call and Commitment

I wasn't sure what I was going to do yet, but I knew I was going to do something. Turns out, my first decision was to stop eating grain-fed, antibiotic ridden, farm raised beef. This happened after I met Joe Theisman, the NFL Quarterback. He was the keynote speaker at a tradeshow I attended. He had stopped eating beef 20 years ago. "Not only have we got hormone problems with the beef, but did you know it takes 3 days to digest or longer? I haven't got time to digest for 3 days, I am a busy man!" Joe said.

(After much study, I decided that it's healthful to eat beef that is truly grass-fed and not grain fed. Mostly eating dark green leafy vegetables, legumes, and true whole foods is the core of any good lifestyle.)

That, of course, was another huge change for me. I joined a gym and found out they offered free classes included in the price of membership, and I became a class hound. Think about this: A personal trainer can run you \$50 - \$75 an hour. If you join a Gym, and take



Joe Theisman, the NFL Quarterback.

advantage of the free classes such as Yoga, Body Flow, Body Pump, RPM (cycling), etc., then you can get nearly personal instruction included in the price of the membership.

Most of the classes I take have 3 to 8 people in attendance. Not only do I get personal instruction, I have the added benefit of the support and chemistry involved in a group activity.

Today, I take on average 3-4 free classes a week (there are literally 40 hours of group classes scheduled!) and my membership costs \$40 a month. That works

out to about \$2.87 per class hour. This of course doesn't take into account the round the clock hours that the gym is open to me with over one million dollars in various workout equipment if I choose to use it. If I do a measly two hours a week in the gym using all this great equipment then my fee per hour drops below \$1.80.

That's about the cheapest dollar commitment I can think of to your health – with the greatest possible returns. Of course, the great stumbling block that most people have is getting out there – and that's where I had the toughest time too.

Conquering One's Self!

I had to decide I was willing to do what's hard. I decided to act in spite of my fears. I committed that I was bigger than any obstacle and that I would never give up. These were powerful commitments.

Of course there were times I wavered... but the philosophy of the Enlightened Warrior became my creed. A warrior by definition is one who goes about to conquer. An Enlightened Warrior is one who seeks to conquer oneself.

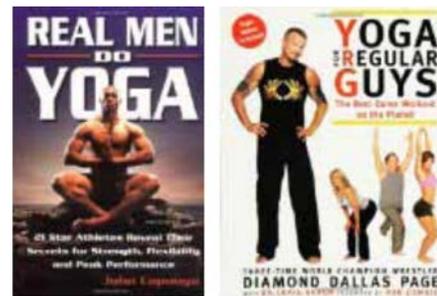
- **How tough is that?** Here's a challenge: Try Yoga! You will learn a lot about conquering yourself! Of all exercise routines, yoga is my favorite. I have a great

teacher and I come away from a one-hour yoga class, exercised to be sure, but feeling refreshed and centered. It's no longer just a ladies sport. There are many men taking yoga today, including top athletes.

- **Two books that I recommend:** Real Men Do Yoga:21 Star Athletes Reveal Their Secrets for Strength, Flexibility and Peak Performance (Paperback) and
- **Yoga for Regular Guys:** The Best Damn Workout on the Planet! (Paperback)



I enjoyed yoga – and my other classes and exercises – so much, that I decided to make it a bigger part of my life. Today, I'm a certified fitness instructor, and I'm in the best shape of my life. However, even with my changes in diet – and extreme changes in exercise – I knew that triglyceride-508 was a bomb with only a couple ticks left on the clock. I needed to do something to fix my blood lipid numbers, and fast. That's when I hit the books. What I found out was nothing short of amazing.



Will the first sign of heart disease be sudden death?

Figured it was time to take action and get to work on my biochemistry!" "Was it hard to shell out my hard-earned money to try

something new? But I figured it was a lot cheaper than paying doctors and hospitals tens of thousands were I to have that imminent cardiac

incident that was brewing. That little voice in my head said, "Don't be penny-wise and pound foolish.



For a lot of people, the first symptom of heart disease is a heart attack! A full 50% of those end in a medical condition known as "sudden death". Did I really want to suffer a heart attack or was I going to stop being chintzy and playing around with my health and my heart?

After 3 months of taking Omega-3 fish oil capsules, I went for a retest. My triglycerides dropped 308 points to a mere 200, borderline instead of a stroke

ready to happen. I lost 15 lbs. Healthy "good oils" and going to the gym can help you lose weight! I lost 3 inches off my waist and pant size. I became a believer. I had to go out and buy new clothes. That was a great feeling! I became a believer. Will these supplements do it all? The daily habit of taking premium nutritional supplements like Omega-3s and a high-grade multivitamin is what fitness experts call a "Gateway Activity." That means the act of paying attention to

your health by taking a supplement opens the door to new knowledge and brings the intention of optimal health to the fore. I started filtering my decisions on long-term goals instead of short-term pleasures.

Moving my body, studying nutrition, choosing better foods, developing better habits took me off the brink of the cliff and put me into a position of better and may I say, optimal health.

Extensive Research Over 50 Years: The Benefits

The benefits of Omega-3 are extensive and have been substantiated by thorough clinical studies. From protecting the health of the heart to strengthening the immune system, the

benefits of using Omega-3 are too important for anyone interested in their health to ignore them. A person taking omega-3 supplements generally look younger and feel more energetic.

Docosahexaenoic Acid (DHA) and Eicosapentaenoic Acid (EPA) The Omega-3 Champions!

The Omega-3 fatty acids are polyunsaturated fats, also known as "good fats". The human body cannot produce these desirable fats, so they need to be acquired from various foods or supplemental sources. The good fats are necessary

for the normal growth of the eyes, brain, and nerve tissue and hormone production. A number of clinical studies indicate that Omega-3 benefits primarily come from the docosahexaenoic acid (DHA) and Eicosapentaenoic acid (EPA).

BEST SOURCES:

The best sources of Omega 3 are not plants, but animal foods. For instance, even though flaxseed is a source of ALA, a type of Omega-3, the body has to convert the ALA flax oil to DHA and EPA.

This can be somewhat difficult for elderly people or for those with a poor health. Three of the best sources of Omega 3 are wild caught fish and fish oil, truly grass fed beef, venison and eggs from free-range chickens. These sources contain Omega-3 oils with DHA and EPA in a natural form, so your body will assimilate them easily, as no conversion is required.

Most clinical studies targeting the benefits of Omega-3 are based on consuming fish, fish oil and fish oil supplements.



BENEFITS OF CONSUMING OMEGA-3 SUPPLEMENTS:

HEART HEALTH: Perhaps the most significant benefit of using Omega-3 as a nutritional supplement is that it improves heart health for everyone, whether or not you have been diagnosed with heart disease. Regard it as the best insurance policy you can get. Fish oil and Omega-3 benefits include lowering the risk of cardiovascular disease, lowering the risk of sudden death and heart-related diseases by reducing the harmful levels of triglyceride. As a matter of fact, the American Heart Association advises that healthy people should have at least two servings of fish per week. The recommended dose for nutritional supplementation of Omega-3s is a daily addition at least 1 gram of pure EPA/DHA for people who have been diagnosed with any type of heart disease. Many doctors encourage



larger doses, up to 4 grams a day. Check with your physician.

Mood: As it is known for improving mood, people who have been diagnosed with depression may take great benefit from supplementation and Omega 3 fish oil. The lack of Omega-3 fatty acids (especially DHA) was proven a trigger for depression. Dr. Andrew Stoll published a landmark book, "The



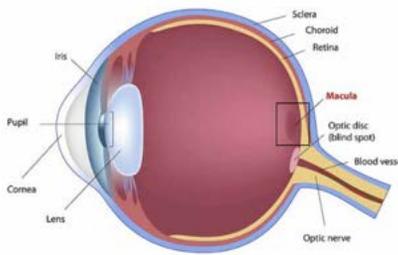
Omega-3 Connection" in 2002 that shows ample evidence of the need for Omega-3 fatty acids in the diet and demonstrates the ability to lift depression without drugs.

Brain Function: These supplements enhance memory and brain function. Research shows the DHA molecule found in fish oil



stimulates both memory and the learning ability. Research has also shown that mothers who take extra DHA during pregnancy and lactation can successfully increase the IQ of their babies. In fact 40% of brain cells are made from DHA Omega-3 fatty acids.

Immune System: Fish oil provides protection against the symptoms of sinus infections, asthma, hay fever, symptoms of rheumatoid arthritis. The advantages of Omega-3 in treating inflammatory diseases come from the EPA and DHA in fish oil that diminishes the quantity of compounds that cause inflammation in arthritis. Most inflammation can be traced to extremely high amounts of Omega-6 oils, commonly used in baking and cooking in the American diet.



Macular Degeneration

Protection: Consuming fish oil is linked to a lower risk of developing macular degeneration, which is an increasingly common eye disease in people over 50. Studies also indicate that Omega-3 supplements may reduce the risk of Alzheimer's. Several clinical studies indicate that fish oil and DHA are responsible for protecting the nervous system in humans. One of the primary purposes of fats in the body is to insulate the organs and nerve tissue from deterioration.

Women's Issues: By consuming Omega 3 on a regular basis, women may experience a significant reduction of PMS symptoms, according to a study published by the Journal of Reproductive Health. Omega-3 also improves the health of skin and hair and fish oil protects the skin against harmful UV

rays. At the same time, fish oil supplements can be a treatment option for skin disorders such as psoriasis. Studies of Omega-3 Krill Oil have shown great promise in alleviating such conditions.

Omega-3s and Kids:

Studies on Omega 3 benefits show that there is a lower risk of breast and prostate cancer in people who use to consume fish oil on a regular basis. A number of studies also indicate attention and concentration are improved in people who consume omega 3 supplements regularly. People are able to recall things better when they consume a daily supplement of omega-3 as well. For

this reason, many parents choose to give their children omega-3 supplements as this helps them do better in school and other extracurricular activities. It sure is better for them than candy and ice cream, although it can be a tough sell to kids. Those who start their children on Omega-3s early in life can expect the habit to continue as the kids grow up.



CHOOSE FRESH, HIGH POTENCY, MOLECULARLY DISTILLED

Besides adding as much wild caught fish, as possible to meal planning, an easy way to take advantage of all the omega-3 benefits is by adding fish oil supplements to your diet. This way, you will protect yourself against many of the health problems that are related to a deficiency of the DHA and EFA fatty acids in your body. It is very important to choose omega 3 fish supplements of high quality. The product needs to be produced fresh in small batches, pure and completely free of contaminants, through

molecular distillation. Taking this into account, it's wise to research before choosing the type of supplement that is suitable for you. Moreover, look for a trusted source. The following products are sold by the author of this report. These have been analyzed and tested to ensure the highest quality:

- [Omega-3 Protocol](#)
- [True Omega-3](#)
- [Antarctic Krill Oil](#)
- [High DHA Omega-3 Calamarine](#)

THE SCIENCE BEHIND OMEGA-3 FISH OILS.

Source: PRETA-TIMC, Equipe Coeur & Nutrition, CNRS UMR 5525-UJF-INP, University Joseph Fourier, Grenoble, France.

michel.delorgeril@ujf-grenoble.fr

Abstract: Consumption of a traditional Mediterranean diet and n-3 polyunsaturated fatty acids (PUFAs) was shown

to be effective in reducing the complications of coronary heart disease in randomized controlled trials. Epidemiological studies and controlled trials indicate that plant- and sea-derived n-3 PUFAs are likely to be important mediators of the protection provided by traditional Mediterranean diets. Of note, consumption of marine n-3 PUFAs from fish and other seafood is high in certain Mediterranean countries (Spain, Portugal), but quite low in others (Italy, Greece).

A relative insufficiency of dietary marine n-3 PUFAs among Italians might in part explain the results of the GISSIPrevenzione trial, in which a modest supplementation of eicosapentaenoic acid +

Mediterranean Diet And N-3 Fatty Acids In The Prevention And Treatment Of Cardiovascular Disease.

- de Lorgeril M, Salen P.

docosahexaenoic acid (approximately 850 mg/day) produced striking reductions in coronary heart disease death (-30%) and sudden cardiac death (-45%) among patients with known heart disease. The protection provided by n-3 PUFAs from both plant and marine sources may be partly dependent on other dietary factors. Plant and marine n-3 PUFAs are likely to be major mediators of the protective effect provided by traditional Mediterranean diets.

Source: Centre of Preventive and Sports Medicine L. Pasteur Hospital and P.J. Safarik University, Trieda SNP 1, 041 90

Kosice, Slovakia.

Abstract: Although there has been a great progress in the prevention of cardiovascular diseases, the mortality of patients with acute myocardial

THE AMERICAN HEART ASSOCIATION:

“OMEGA-3 FATTY ACIDS BENEFIT THE HEART OF HEALTHY PEOPLE, AND THOSE AT HIGH RISK OF, OR WHO HAVE, CARDIOVASCULAR DISEASE.”

PMID: 17876197

[PubMed - indexed for MEDLINE]

Pathophysiology. 2007 Oct;14(2):127-32. Epub 2007 Jun 28.

N-3 Pufas-From Dietary Supplements To Medicines.

Fedacko J, Pella D, Mechírová V, Horvath P, Rybár R, Varjassyová P, Vargová V.

infarction (AMI) still remains high. One of the most important underlying causes explaining this phenomenon is the sudden cardiac death. Nearly half of all cardiovascular deaths in the USA each year is attributed to this unpredictable and unexpected complication of AMI. Hence, there is an urgent



medical need for a targeted therapy to reduce the incidence of sudden cardiac death. Since 1980 there have been several epidemiological and other studies concerning the benefits of n-3 polyunsaturated fatty acids (n-3 PUFAs) in cardiovascular health and prevention. Results from one of the largest studies, GISSI Prevenzione Trial show that

adding the n-3 PUFAs to standard therapy of patients who survived AMI reduces sudden cardiac death (44% risk reduction, $p=0.0006$). In addition, significant decline in all-cause cardiovascular mortality (21% risk reduction, $p=0.0064$) further emphasizes the role of n-3 PUFA in cardiovascular prevention. To date, beneficial effects of n-3

PUFA are attributed to their antiarrhythmic, lipid lowering, antithrombotic and anti-inflammatory properties. To conclude, EPA and DHA improve the prognosis of cardiovascular patients in the secondary prevention of sudden cardiac death without any documented side effects.

PMID: 17604611
[PubMed]
Historical Overview Of N-3 Fatty Acids And Coronary Heart Disease.
Leaf A.

Source: Massachusetts General Hospital and the Harvard Medical School, Boston, MA 02114, USA.

Abstract: The first evidence that fish oil fatty acids might have a beneficial effect on coronary heart disease came from the discovery that Greenland Eskimos, who have a diet high in n-3 fatty acids, have a lower mortality from coronary heart disease than do Danes and Americans. Long-chain polyunsaturated fatty acids are essential in our diets and can be classified in 2 groups: n-6 fatty acids found in plant seeds and n-3 fatty acids found in

marine vertebrates. Further evidence of n-3 benefits to human health include a 1989 study demonstrating a 29% reduction in fatal cardiac arrhythmias among subjects with a recent myocardial infarction who had been advised to consume fish oil. The GISSI-Prevenzione Trial found a significant reduction in relative reduction of death, cardiac death, nonfatal myocardial infarction, and stroke in subjects consuming n-3 fatty acids. In a recent study, subjects with implanted cardiac defibrillators (ICDs) at high risk for fatal ventricular arrhythmias were randomly assigned to four

1-g capsules of either an ethyl ester concentrate of n-3 fatty acids or olive oil daily for 12 mo. Subjects receiving n-3 who thus had significantly higher levels of eicosapentaenoic acid and docosahexaenoic acid in their red blood cell membranes showed a longer time to first ICD events and had a significantly lower relative risk of having an ICD event or probable event ($P = 0.033$). These studies demonstrate that fish oil fatty acids have beneficial effects on coronary heart disease.





Source: The Center for Genetics, Nutrition and Health, Washington, DC 20009, USA. cgnh@bellatlantic.net

Abstract: Several sources of information suggest that human beings evolved on a diet with a ratio of omega-6 to omega-3 essential fatty acids (EFA) of approximately 1 whereas in Western diets the ratio is 15/1-6.7/1. Western diets are deficient in omega-3 fatty acids, and have excessive amounts of omega-6 fatty acids compared with the diet on which human beings evolved and their genetic patterns were established. Excessive amounts of omega-6 polyunsaturated fatty acids (PUFA) and a very high omega-6/omega-3 ratio, as is found in today's Western diets, promote the pathogenesis of many diseases, including cardiovascular disease, cancer, and inflammatory and autoimmune diseases, whereas increased levels of omega-3 PUFA (a low omega-6/omega-3 ratio)

PMID: 18541598
[PubMed - indexed for MEDLINE]
Biomed Pharmacother. 2002 Oct;56(8):365-79.
The Importance Of The Ratio Of Omega-6/Omega-3 Essential Fatty Acids.
Simopoulos AP.

exert suppressive effects. In the secondary prevention of cardiovascular disease, a ratio of 4/1 was associated with a 70% decrease in total mortality.

A ratio of 2.5/1 reduced rectal cell proliferation in patients with colorectal cancer, whereas a ratio of 4/1 with the same amount of omega-3 PUFA had no effect. The lower omega-6/omega-3 ratio in women with breast cancer was associated with decreased risk. A ratio of 2-3/1 suppressed inflammation in patients with rheumatoid arthritis, and a ratio of 5/1 had a beneficial effect on patients with asthma, whereas a ratio of 10/1 had adverse

consequences. These studies indicate that the optimal ratio may vary with the disease under consideration. This is consistent with the fact that chronic diseases are multigenic and multifactorial. Therefore, it is quite possible that the therapeutic dose of omega-3 fatty acids will depend on the degree of severity of disease resulting from the genetic predisposition. A lower ratio of omega-6/ omega-3 fatty acids is more desirable in reducing the risk of many of the chronic diseases of high prevalence in Western societies, as well as in the developing countries, that are being exported to the rest of the world.

Endocr Metab Immune Disord Drug Targets. 2011 Jun 8. [Epub ahead of print]
Role of ω3 Longchain Polyunsaturated Fatty Acids in Reducing Cardio-Metabolic Risk Factors.
Abeywardena MY, Patten GS.

Source: CSIRO Food & Nutritional Sciences, Kintore Avenue, Adelaide, SA 5000, Australia. mahinda.abeywardena@csiro.au.

Abstract: Cardiovascular disease is the leading cause of mortality in many



economically developed nations, and its incidence is increasing at a rapid rate in emerging economies. Diet and lifestyle issues are closely associated with a myriad of cardiovascular disease risk factors including abnormal plasma lipids, hypertension, insulin resistance, diabetes and obesity, suggesting that diet-based approaches may be of benefit. Omega-3 long chain-polyunsaturated fatty acids (ω 3 LC-PUFA) are increasingly being used in the prevention and management of several cardiovascular risk factors.

Both the ω 3 and ω 6 PUFA families are considered essential, as the human body is itself unable to synthesize them. The conversion of the two precursor fatty acids – linoleic acid (18:2 ω 6) and ω -linoleic acid (ω 18:3 ω 3) – of these two pathways to longer (\geq C(20)) PUFA is inefficient. Although there is an abundance of ω 6 PUFA in the food supply; in many populations the relative intake of ω 3 LC-PUFA is low with health authorities advocating increased consumption.

Fish oil, rich in eicosapentaenoic (EPA, 20:5 ω 3) and docosahexaenoic DHA, 22:6 ω 3) acids, has been found to cause a modest reduction in blood pressure at a dose level of >3g/d both

in untreated and treated hypertensives. Whilst a multitude of mechanisms may contribute to the blood pressure lowering action of ω 3 LC-PUFA, improved vascular endothelial cell function appears to play a central role. Recent studies which evaluated the potential benefits of fish oil in type-2 diabetes have helped to alleviate concerns raised in some previous studies which used relatively large dose (5-8 g/d) and reported a worsening of glycemic control. Several meta-analyses have confirmed that the most consistent action of ω 3 LC-PUFA in insulin resistance and type-2 diabetes is the reduction in triglycerides. In some studies, fish oil has been found to cause a small rise in LDL-cholesterol, but a change in the LDL particle size, from the smaller more atherogenic form to the larger, less damaging particle size, have also been noted. ω 3 LC-PUFA are effective modulators of the inflammation that accompanies several cardio-metabolic abnormalities. Taking into consideration the pleiotropic nature of their actions, it can be concluded that dietary supplementation with ω 3 LC-PUFA will lead to improvements in cardio-metabolic health parameters. These fatty acids pose only minor side effects and more importantly, do not interact adversely with the

common drug therapies used in the management and treatment of hypertension, dyslipidemia, type-2 diabetes, and obesity/metabolic syndrome, but in some instances work synergistically, thereby providing additional cardiovascular benefits.

PMID: 21651471

[PubMed - as supplied by publisher]

Curr Opin Lipidol. 2011 Oct 7. [Epub ahead of print]

Novel Developments In Omega-3 Fatty Acid-Based Strategies.

Davidson MH, Kling D, Maki KC.

Source: University of Chicago Pritzker School of Medicine, Chicago, Illinois Omthera Pharmaceuticals, Inc., Bedminster,

New Jersey Provident Clinical Research, Biofortis-North America, Glen Ellyn, Illinois, USA.

Abstract: *PURPOSE OF REVIEW:* Omega-3 polyunsaturated fatty acids (n-3 PUFAs) have been attributed with several



health benefits, including triglyceride lowering and cardiovascular disease risk reduction. This review focuses on new prescription omega-3 fatty acid products in development and recently published data regarding omega-3 fatty acid effects on arrhythmias, heart failure, and platelet inactivation.

Recent Findings: A free fatty acid form of n-3 PUFA was found to produce a four-fold higher area under the plasma n-3 PUFA curve than prescription

omega-3-acid ethyl esters in patients on a low-fat diet. Eicosapentaenoic acid ethyl esters reduced triglyceride without significantly elevating LDL cholesterol in patients with severe hypertriglyceridemia and in those with mixed dyslipidemia. Recent investigations of n-3 PUFA effects on ventricular and atrial arrhythmias, including studies in patients with implanted defibrillators, failed to demonstrate a significant benefit. However, increased fatty fish or n-3 PUFA

consumption was associated with a lower rate of hospitalization in heart failure patients. A further important finding was potentiation of the antiplatelet response when n-3 PUFAs were added to aspirin+clopidogrel.

Summary: Although n-3 PUFA therapy continues to show promise in the prevention and management of cardiovascular diseases, further research is necessary to more fully elucidate its role in specific disorders.

Am J Clin Nutr. 2008 Jun;87(6):1981S-90S

Role Of N-3 Fatty Acids In The Treatment Of Hypertriglyceridemia And Cardiovascular Disease.

Jacobson TA.

Source: Office of Health Promotion and Disease Prevention, the Department of Medicine, Emory University, Atlanta, GA

30303, USA. tjaco02@emory.edu

Abstract: n-3 Fatty acids (FAs) when used in doses of 3-4 g/d eicosapentaenoic acid and docosahexaenoic acid have profound effects on triacylglycerol (TG) concentrations. The mechanism for their TG reduction relates to

their favorable effects on reducing hepatic production and secretion of VLDL and VLDL apolipoprotein B particles, along with favorable effects on plasma lipolytic activity through lipoprotein lipase-mediated clearance, as well as stimulation of beta-oxidation of other FAs in the liver. Their hypotriglyceridemic properties are related to both the dose of n-3 FAs used and the baseline TG concentrations of the population. In patients with TG concentrations >500

mg/dL, 4 g n-3 FAs have been shown to reduce TGs by 45%, VLDL by 42%, and non-HDL by 10.2%. A recent pooled meta-analysis with multiple doses of n-3 FAs ranging from 0.8 to 5.4 g revealed changes in TGs of -27 mg/dL (95% CI: -33, -20), in HDL of +1.6 mg/dL (95% CI: + 0.8, +2.3), and in LDL cholesterol of +6 mg/dL (95% CI: + 3, +8). The clinical uses of n-3 FAs include treatment of severe and moderate hypertriglyceridemia, use in statin-treated patients with elevated TG concentrations or non-HDL cholesterol (mixed hyperlipidemia), and use in the secondary and primary prevention of cardiovascular disease. Existing large-scale clinical





trials such as the GISSI-Prevenzione Study and JELIS with low doses of n-3 FAs (1-2 g) show clinical benefit in reducing coronary heart disease without substantial changes in concentrations of TGs or other lipids. Future clinical trials need to determine whether the TG-lowering doses of n-3 FAs (3-4 g/d) result in additional risk reduction.

Source: Consorzio Mario Negri Sud, Santa Maria Imbaro (CH), Italy. marchioli@negrisud.it

Abstract: The GISSI-Prevenzione trial established the efficacy of n-3 polyunsaturated fatty acids (PUFAs) for reducing mortality in patients after recent myocardial infarction. The generalisability of such results to clinical practice could vary according to other individual patient characteristics. We analysed the GISSI-Prevenzione database to assess whether other major risk factors, comorbidities, dietary habits, or medications could interact with the efficacy of n-3 PUFA treatment to reduce total mortality. We found no evidence that concomitant disease states, habits, or interventions altered the therapeutic benefit of n-3 PUFA consumption in survivors of recent myocardial infarction.

Efficacy Of N-3 Polyunsaturated Fatty Acids According To Clinical Characteristics Of Patients

With Recent Myocardial Infarction: Insights From The GISSI-Prevenzione Trial.

Marchioli R, Marfisi RM, Borrelli G, Chieffo C, Franzosi MG, Levantesi G, Maggioni AP, Nicolosi GL, Scarano M,

Silletta MG, Schweiger C, Tavazzi L, Tognoni G.

PMID: 17876196

[PubMed - indexed for MEDLINE]

Curr Atheroscler Rep. 2007 Aug;9(2):145-53.

Beyond Lipids: The Role Of Omega-3 Fatty Acids

From Fish Oil In The Prevention Of Coronary Heart Disease.

Jacobson TA.

Source: Department of Medicine, Emory University, 49 Jesse Hill Jr Drive SE, Atlanta, GA 30303, USA. tjaco02@emory.edu

Abstract: Abstract Omega-3 fatty acid therapy shows great promise in the secondary prevention of coronary artery disease. A meta-analysis of recent omega-3 trials shows reductions of coronary heart disease mortality of 36% (95% CI, 20%-50%; P<0.001) and total mortality of 17% (95% CI, 0%-32%; P=0.046). Some of the potential mechanisms for cardiovascular protection include a reduction in cardiac arrhythmias and plaque stabilization. Since the publication of the landmark GISSI-Prevenzione trial, there have been three major intermediate cardiovascular endpoint studies in patients with implantable cardioverter defibrillators (ICDs) and one large trial, the Japan EPA Lipid Interventional Study (JELIS) trial, which involved 18,645 Japanese patients in primary and secondary prevention. The three studies with ICD patients have been mixed, with favorable trends toward reduction in the incidence of ventricular arrhythmias in some but not all of the studies. Results of the recent JELIS trial in a Japanese population already consuming a high intake of omega-3 fatty acids showed a 19% risk reduction in major coronary events. Most of the reductions were in unstable angina and nonfatal coronary events, but not in sudden death and cardiovascular mortality.



The totality of evidence suggests greater benefits with omega-3 fatty acids in secondary prevention than primary prevention and in populations consuming low amounts of omega-3 fatty acids.

Herz. 2006 Dec;31 Suppl 3:83-95.

Highly Purified Omega-3 Polyunsaturated Fatty Acids In Clinical Development.

Vik H.

Source: Pronova Biocare, Lysaker, Norway.

Abstract: Highly purified omega-3 polyunsaturated fatty acids (PUFAs) (Omacor) is the focus of an extensive and ambitious clinical development program that seeks to build on the results of the Gruppo Italiano per lo Studio della Sopravvivenza nell'Infarto Miocardico (GISSI)-Prevenzione study. Studies currently in progress include very large clinical outcome trials designed to evaluate the impact of omega-3 PUFAs on death and major morbid events in defined patient populations such as individuals with heart failure or diabetes, specialist investigations in very high-risk populations such as patients requiring

hemodialysis, and a range of specialized studies concerned with mechanisms of action and effects on biochemical and laboratory indices. The emergence of results from these studies can be expected to define a spectrum of indications for omega-3 PUFAs in the management of cardiovascular and renal disease.

Herz. 2006 Dec;31 Suppl 3:74-82.

A Multi-Country Health-Economic Evaluation Of Highly Concentrated

N-3 Polyunsaturated Fatty Acids In The Secondary Prevention After Myocardial Infarction.

Lamotte M, Annemans L, Kawalec P, Zoellners Y.

Source: HEDM-IMS, Bruxelles, Belgium.

Abstract: Patients who survive an acute myocardial infarction (MI) are at increased risk of subsequent major cardiovascular events and cardiac (often sudden) death. The use of highly concentrated and purified omega-3 polyunsaturated fatty acids (n-3 PUFAs), in addition to standard

secondary prevention after MI, results in a significant reduction in the risk of sudden death. This study assessed the cost-effectiveness of adding n-3 PUFAs to the current secondary prevention treatment after acute MI in 5 countries: Australia, Belgium, Canada, Germany, Poland.

Based on the clinical outcomes of GISSI-Prevenzione (MI, stroke, Revascularisation rate and mortality), a decision model was built in DataPROTM. The implications of adding n-3 PUFAs to standard treatment in patients with a recent history of MI were analysed from the health care payer's perspective. The time horizon was 3.5 years (identical to GISSI-Prevenzione). Event costs were based on literature data. Life expectancy data for survivors of cardiac disease were taken from the Saskatchewan database and then country-adjusted. Results are expressed as extra cost (Euro) per life-year gained (LYG). Annual discounting of 5% was applied to health effects and costs. Treatment with highly concentrated n-3 PUFAs yielded between 0.260 (Poland) and 0.284 (Australia) LYG, at an additional cost of Euro 807 (Canada) to Euro 1,451 (Belgium). The incremental cost-effectiveness ratio (ICER) varied between Euro 2,867 (Canada) and Euro 5,154



(Belgium) per LYG. Sensitivity analyses on effectiveness, cost of complications and discounting proved the robustness of the results. A 2nd order Monte Carlo simulation based on the 95% CIs obtained from GISSI showed that highly

concentrated n-3 PUFAs are cost-effective in more than 99% of patients (assuming societal willingness to pay threshold of Euro 20,000/LYG). Including health care costs incurred during the remaining life-years considerably increased total

costs, but had no impact on the ICER-based treatment recommendation. *Adding highly concentrated n-3 PUFAs to standard treatment in the secondary prevention after MI appears to be cost-effective in the 5 countries studied.*

From Garey Simmons who compiled this report:

In conclusion, it really makes abundant sense to do one thing everyday: Get your Omega-3s. According to the American Heart Association, Omega-3s benefit:

- healthy people
- those at high risk of heart disease
- those who have heart disease

Join us in our quest to prevent a million heart attacks. This year, in the United States there will be upwards of 1.1 million heart attacks. Half of them, a full 50%, will be fatal.

Don't let this happen to yourself or to your loved ones. Let's get people taking Omega-3 fish oil and start whittling away at this number. If we shaved off 100,000 heart attacks a year, we could save a million people over a ten year period.

Be well,



Garey Simmons

877-572-3444

For more information, please visit: www.OptimalHealthBridge.com