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THE NUTRI-SPEC LETTER

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From:
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Dear Doctor,

I walked into a health food store not long ago for the first time in many years. I cannot say I was surprised by what I saw, but the sheer magnitude of the promotional HYPE made me feel as if I were being propositioned with the enticing promises of a classic …

SWEET-TALKING SNAKE OIL SALESMAN.

Fully one fourth of the store was dominated by Soy Death as he loudly proclaimed his power to prevent or cure every malady known to humankind. One entire end of the store featured She-Beast Phytoestrogen as she sang her siren song of cures for the very conditions caused by excess estrogen. But the most captivating song and dance of all was performed by none other than Omega 3 PUFA, winner of the decade's Pseudo-Science Award, who was seen masterfully manipulating people in every section of the store.

WHAT HAPPENED TO THE GOOD OLD DAYS …

when health food stores were dominated by comparatively benign villains such as health food store cookies, juices, and mega dose vitamin supplements? In days of old, health food store customers were victims only of their own stupidity. Now, in blissful ignorance, they are self-destructing under the influence of a deadly, powerful, propaganda machine.

My point is that now there is so much money to be made in soy, phytoestrogens, and omega 3 fatty acids, that the little cult of people who created the health food industry as a grass roots movement, have

been completely displaced in their own industry by Agri-business. Only by spending billions of dollars has Agri-business been able to convince us that soy, phytoestrogens, and omega 3 (as well as omega 6) fatty acids are good for us, when in fact …

THEY ARE THE MOST DEADLY OF ANTI-METABOLITES.

While introducing you to the oxidative free radical damage and premature aging caused by omega 3 fatty acids, I commented in last month's Letter, "I realize how thoroughly effective the propaganda in favor of omega 3 fatty acids (just as for the omega 6 fatty acids before them) has been. That is precisely why this Letter is so important to you. You and your patients have been so effectively brainwashed regarding omega 3 fatty acids that you will need at least two issues of your NUTRI-SPEC Letter, offering dozens of references from the scientific literature, to help you see the truth."

I explained that even I had been snookered to some degree by the "research" supporting the clinical use of ALA, EPA, and DHA supplementation. For more than 25 years I fooled around with using omega 3 fatty acids for both my prostaglandin imbalance patients and my anaerobic imbalance patients. Now that I know better, I am determined to give you the truth about the deadly omega 3 fatty acids, just as we have given you in years past the complete case against the very convincing and popularly accepted soy and estrogen propaganda.

The problem with my clinical experimentation with fish oil supplements was that I could honestly never see any evidence, either objective or subjective, that the supplementation was doing any good. But I would no sooner stop recommending EPA and DHA than I would find a research study in the literature compelling me to once again work at finding a way to make fish oil supplements work. Finally, after more than 20 years of on-again, off-again use of fish oil supplements, two things happened. First, the evidence from the scientific literature revealing the damages of fish oil began to out-weigh evidence for its benefits. Second, I did extensive experimentation on various ways of dosing EPA and DHA on <u>myself</u>, with careful monitoring of objective and subjective results. From the anti-fish oil evidence in the literature I got the idea to only use EPA and DHA supplementation on a temporary basis for new patients in an effort to control prostaglandin-related symptoms. From the experimentation done on myself, all I got was a forehead full of unsightly age spots.

Several months ago, after years of going in circles regarding omega 3 fatty acids, I finally did what I should have done years earlier --- an exhaustive literature search on ALA, EPA, and DHA. The results of that

search left me red faced with embarrassment. All I can do now is face the truth, and pass that truth along to you. And that truth is, quite simply, that …

OMEGA 3 OILS ARE EVEN MORE DAMAGING THAN OMEGA 6 OILS.

The only reason we do not see more pathology associated with omega 3 fatty acids is that quantitatively they exist in our diets in only a tiny fraction of the omega 6 fatty acids we consume.

How are ALA, EPA, and DHA so damaging? Recall from last month's Letter the three ways by which omega 6 fatty acids destroy our health:

- by lipid peroxidation
- by prostaglandin formation
- by the formation of trans-isomers and other unnatural fatty acids

Omega 3 fatty acids are guilty of only one of these three sins --- the acceleration of lipid peroxidation. But the omega 3 fatty acids are far more subject to oxidative free radical damage than are the omega 6 fatty acids. Fish oils not only rapidly destroy vitamin E in the body, but they spontaneously oxidize with incredible speed, even before they reach the blood stream. In undergoing such rapid oxidation, they form strange and ultra-pathological fatty acids, much as the omega 6 fatty acids do in response to heat.

I will begin this exposé of omega 3 PUFAs by showing just how vulnerable they are to oxidation, and how easily they cause lipid peroxidation damage in the body. That introduction will be followed by a more detailed description of how these PUFAs specifically cause damage to the brain, liver, skin, thymus, spleen, and heart, and accelerate the progression of diseases such as atherosclerosis, diabetes, stroke, and cancer.

LIPID PEROXIDATIVE DAMAGE:

The first thing to understand regarding the oxidation of omega 3 oils, is that these oils are so unstable that they begin to spontaneously oxidize even before they reach the blood stream.

Fish oil is so subject to oxidation that, without antioxidants, it is almost totally degraded within 48 hours; no amount of added antioxidant prevents considerable degradation. That spontaneous oxidation is what made fish oils useful as varnish and in paint, but it is what also causes them to induce catabolic oxidative damage to tissues.

J Nutr. 1988 Apr;118(4):425-6. Rapid auto-oxidation of fish oil in diets without added antioxidants. Fritsche, et al.

J Nutr. 1992 Nov; 122(11):2190-5. Lipid peroxidation products are elevated in fish oil diets even in the presence of added antioxidants. Gonzalez, et al.

Adv Exp Med Biol. 1991;289:255-68. Dietary omega 3 polyunsaturated fatty acids of fish oils, auto-oxidation ex vivo and peroxidation in vivo: implications. Kinsella J.

The degenerative diseases are all associated to some degree with lipid peroxidation. Alzheimer's Disease, various forms of arthritis, liver disease, retinal degeneration, epilepsy, AIDS, diabetes, and vascular disease, to name a few, all involve breakdown products of PUFAs. The products of PUFA oxidation include acrolein, malondialdehyde, hydroxynonenal, crotonaldehyde, neuroprostanes, and countless other derivatives of fatty acid oxidation. These are the substances you are measuring in the urine with your NUTRI-SPEC surface tension test.

One of the most demonstrable pathological effects of all PUFAs, both omega 6 and omega 3, is …

THE FORMATION OF LIPOFUSCIN
(ALSO KNOWN AS "AGE PIGMENT," OR "LIVER SPOTS") …

resulting from oxidative free radical damage, particularly when accompanied by insufficient vitamin E. Lipofuscin, or ceroid pigment, does not just form in the skin, it forms simultaneously in the brain. Associated with the formation of lipofuscin, PUFAs were discovered decades ago to cause degeneration of the gonads, and the brain. In fact, it was the protection against lipofuscin formation that allowed early researchers to understand that the essential role of vitamin E is as an antioxidant.

In their 1968 edition of Present Knowledge in Nutrition, Hartroft and Porta showed that adequate saturated fat (meat, poultry, eggs, cheese, coconut oil, and palm oil) in the diet actually protects against the formation of the lipofuscin caused by unsaturated fat. Specifically, they showed that age pigment is produced in proportion to the ratio of oxidants to anti-oxidants, multiplied by the ratio of unsaturated fats to saturated fats. Other studies demonstrate that ultra violet light induces peroxidation in unsaturated fats, but not saturated fats, and this occurs in the skin. The unsaturated fat in the skin is a major target for the aging and carcinogenic effects of ultra violet light. (As a side note, other

experiments have shown that the amount of unsaturated oil in the diet strongly affects the rate at which the skin develops wrinkles. How ludicrous is it to use skin lotions made from vegetable oils?!)

Many studies have shown that after ingestion of omega 3 fatty acids the end products of oxidative lipid damage increase substantially. 4-hydroxynonenol is a particularly pathological end product of omega 3 PUFA oxidation. Malondialdehyde is shown to increase substantially in the body following ingestion of concentrated omega 3 fatty acids, but also from ingestion of whole cod liver oil. Oxidative end products after omega 3 PUFA ingestion are shown to be associated with an acceleration of atherosclerosis development, and also with increased oxidative damage in bone marrow DNA in rats.

Dietary polyunsaturates poison several mitochondrial functions, including cytochrome oxidase.

Borst, P., et al. "Uncoupling Action Of Long Chain Fatty Acids," Biochem. Bioph. Acta, 62, 509-18, 1962.

PUFAs stimulate excess production of prostaglandins – contributing to inflammatory joint disease, osteoporosis, immuno-suppression, and fluid retention.

Johnston, P. "Dietary Fat, Eicosanoids, and Immunity," Advances In Lipid Research, 21, 103-41, 1985.

Polyunsaturates distort fluid movements within and between cells, and thus negatively impact intercellular communication. Excess unsaturated fats retard cellular development and/or accelerate cell death.

Lipids. 22(6), 445-54, 1987. "Effect of fatty acids on junctional communication: Possible role in tumor promotion by dietary polyunsaturated fat," Aylsworth, C.F. et al.

Antioxid Redox Signal. 1999 Fall;1(3):255-84. 4-Hydroxynonenal as a biological signal: molecular basis and pathophysiological implications. Parola, et al.

Lipids. 1988 Apr;23(4):370-1. Malondialdehyde excretion by subjects consuming cod liver oil vs a concentrate of omega 3 fatty acids. Piche, et al.

Neurobiol Aging. 2005 Apr;26(4):465-74. Immuno chemical cross reactivity of antibodies specific for "advanced glycation end products" with "advanced lipoxidation end products". Richter, et al.

Atherosclerosis. 1997 Nov;Vol.135, no. 1, pp.1-7. Oxidized cholesterol in the diet accelerates the development of atherosclerosis in LDL receptor deficient and apolipo protein e-deficient mice. Staprans, et al.

J Nutr. 2000 Dec;130(12):3028-33. Polyunsaturated omega 3 fatty acids susceptible to peroxidation are increased in plasma and tissue lipids of rats fed DHA-containing oils.

Free Radic Res. 2001 Apr;34(4): 427-35. DHA supplementation increases oxidative damage in bone marrow DNA in rats and the relation to antioxidant vitamins. Umegaki, et al.

That concludes your introduction to the catabolic oxidative damage done by ALA, EPA, and DHA supplementation. Next month you will learn the details of the immuno-suppressive damage, brain damage, cardiovascular disease, and diabetes caused by omega 3 PUFAs. You must save your family and patients from the snake oil salesman. He has sold his remedy to literally millions of unsuspecting victims using pseudo-science to strengthen his pitch. Armed with real scientific truth, you are in a position to protect everyone you know. Take it as your duty. [Agri-business is now putting DHA in baby formula, even though honest research shows that PUFAs impair infant brain development (while saturated fats are essential for normal brain development and nerve myelination), and, omega 3 fatty acids increase the incidence of allergies in infants.]

Remember the formula:

Health = (anti-oxidants/oxidants) x (saturated fats/PUFAs)

The means to increase vital reserves are yours to offer your patients. You can translate the above formula:

Health = [(OXY POWER + GO POWER + OXY A+ or D+)/(STRESS)] x [NSFD]

All your patients are suffering from oxidative stress --- and YOU have the worlds most powerful anti-oxidant nutrition plan.

Guy R. Schenker, D.C.