

Image Awareness Healthletter

Image Awareness Corp.

September 2002

Trans Fatty Acids Unsafe

Those who are long time readers of this newsletter or those who have heard me speak will not find it surprising to learn that trans fatty acids are unsafe. What is surprising is that the National Academy of Sciences has now come to the conclusion that these fats are as bad as or worse than saturated fat in contributing to heart disease.

Trans fats are found in a variety of foods and would more commonly be labeled "partially hydrogenated oils." These fats are found in a wide variety of pastries, fries, margarine, frosting, pie crusts, chips, doughnuts, as well as in meat and dairy products when animals are fed the wrong kinds of foods. Manufacturers are not required to label trans fats in foods.

Pure liquid oils may have up to 6% trans fats, margarines 54% and solid vegetable shortening 58%. These high trans fat foods are particularly dangerous.

Trans fats boost levels of LDL cholesterol, the worst kind, more than saturated fats do. These fats also reduce levels of HDL cholesterol--the body's good heart protective cholesterol.

The National Academy of Sciences refused to set any "safe" limit for these fats and recommended keeping intake "as low as possible."

Trans fats are usually a result of processing quality oils. One of the problems with these food artifacts is that the body inserts them into key structures such as cell walls.

Unfortunately, a trans fat does not have the same shape as a natural or "cis" fat. Natural fats have a horseshoe shape while trans fats have a straight shape. Trans fats can occupy the place of a quality fat, but they do not function the same. This displacement increases the risk of defects in

whatever tissues the fats become incorporated in.

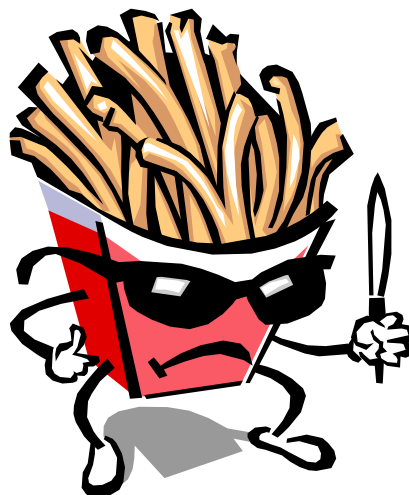
A diet high in trans fats runs a risk of interfering with brain, nerve, and glandular function. These are the body's most fat rich tissues.

Trans fats are exceedingly difficult to remove from cell structures once they become incorporated there. Under the best of circumstances it takes about 7 1/2 weeks to remove 50% of the trans fats from a tissue. The best strategy for removing them involves supplementing with very high quality oils. The body in its own inherent wisdom knows that it wants the best quality fats it can obtain.

This writer usually recommends a combination of the GNLD Tre-en-en oils (as Formula IV Plus) and Salmon Oil or Omega III Concentrate to reduce levels of trans fats and rebuild tissues with the highest quality raw materials possible.

Reference:

Squires, Sally, "Trans Fatty Acids: Unsafe at Any Feed," *The Washington Post*, July 16, 2002.



Inside this issue:

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This newsletter is written to provide information and should not be used as a substitute for the recommendations of your medical doctor. The reader is urged to review this information with a qualified health professional because each individual and medical situation are unique. You should not consider this information the practice of medicine or to replace consultation with a physician or other qualified healthcare provider.

Trans Fats and Mitochondria

The mitochondria are the energy factories of the cell where carbon dioxide and water are burned to produce energy. Interruption of this process can have grave consequences for energy levels in general and for the functioning of energy dependent tissues in particular. One organ particularly dependent upon consistent energy production is the heart. Think of the energy required to keep this tissue beating 24 hours a day!

One group of researchers found that a diet containing only 4.4% trans fats caused the mitochondria, the energy factory of the cell, to become swollen two or three times their nor-

mal size. Even with this low intake the tissues of the animals were found to have 13-14% trans fats. These fats concentrate in the tissue!

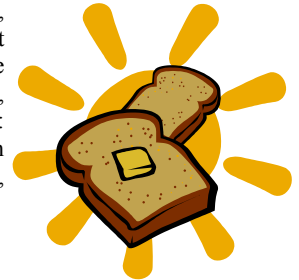
The swelling of the mitochondria is associated with inhibited function and increased risk of free radical damage to these tissues. Partially hydrogenated cottonseed oil was shown to cause skin cancer over 60 years ago.

One possible means of protection of the mitochondria from free radical attack is generous intake of Vitamin E and Carotenoids (particularly astaxanthin missing in many products

but present in GNLD)) when consuming trans fats or partially hydrogenated oils. These nutrients are critical fat soluble antioxidants shown to protect mitochondrial tissues.

Reference:

K i m e ,
Z a n e ,
S u n l i g h t
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P u b l i c a t i o n s ,
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Estrogen and Ovarian Cancer

The last issue of the newsletter discussed the recent discovery that HRT (Hormone Replacement Therapy) increased the risk of heart disease. The drumbeat of bad news for estrogen has continued since that time.

A recent study by the National Cancer Institute "shows that the increased risk of contracting the disease (ovarian cancer) is real and substantial - an 80 percent increase in risk for women who have used estrogen for at least 10 years and a 220 percent higher risk for those who have used it at least 20 years."

Ovarian cancer strikes 23,000 US women every year and kills 14,000.

The medical approach to the use of estrogen may be flawed at the pre-suppositional level. It is assumed by the medical community that the best estrogens to use are the strongest. This is contrary to nature. Three estrogens are found in the human body, estriol, estradiol, and estrone. The weakest of these is estriol which accounts for 60-80% of the typical woman's estrogen. High estriol was shown by Henry Lemon in 1966 to reduce the risk of breast cancer.

Weak estrogens appear to reduce the risk of breast cancer while strong ones increase the risk.

The most common forms of estrogen prescribed by physicians are estradiol and estrone. Estradiol is the strongest of the estrogens, which composes only 10-20% of the normal woman's estrogen.

Premarin® is horse estrogen. It has a large component of estrone (75-80%) with most of the rest being Equillin--a form of estrogen unique to horses. The human body does not have the enzymes to properly handle horse estrogen. As a result levels of Equillin can remain elevated for 13 weeks after use has ceased due to storage and slow release. Wright notes that "equilin produces estrogenic effects that are much, much more potent and much longer lasting than those produced by natural human estrogens. It has been estimated that horse estrogens are as much as eight times more potent than natural human estrogens in the human body."

The official warning label on Premarin® notes that risk of endometrial cancer increases 4.5 to 13.9 times among estrogen users. The longer

strong estrogens are used, the greater the risk.

The safest estrogens are the natural ones produced within a healthy body by adequate intake of essential nutrients including quality grain and legume oils, vitamin A and B complex or dried liver. Vitamin A is essential for hormone synthesis and inadequate intake can be as risky as an excess of this vitamin. The liver plays a role in hormone balance.

It is estimated that horse estrogens are 8 times more potent than natural human estrogens.

The safest HRT consists of natural hormones including estriol and progesterone which both protect against cancer.

References:

Maugh, Thomas H., II, Estrogen shown to raise risk of ovarian cancer," *The News Tribune* (Tacoma), July 17, 2002, p. A 9 (Original story LA Times).

Lemon, Henry M., et al., "Reduced Estriol Excretion in Patients With Breast Cancer Prior to Endocrine Therapy," *JAMA*, June 17, 1966, p. 112.

Wright, Jonathan, and Morgenthaler, John, *Natural Hormone Replacement*, Petaluma, CA.: Smart Publications, 1997, p. 21, 49.

"Seismic Shift in Heart Care"

The headline above recently appeared in papers across the country. The crux of the story is that inflammation is now considered by many to be a more important risk factor for heart disease than is cholesterol or fat intake. In other words, heart disease can no longer be considered a plumbing problem.

In recent years an enzyme called MPO (myeloperoxidase) has been found to increase risk of heart disease 20 fold. This enzyme is normally found in white blood cells and is associated with inflammation. Testing for this enzyme is more reliable than current cholesterol tests for predicting hardening of the arteries.

Interleukin 6, another inflammatory marker has been associated with heart disease.

The real question is where is all the inflammation coming from and what can be done about it. Most researchers are looking for a bacterial or viral cause for the inflammation. This certainly can not be ruled out.

Salmon Oil: Effectiveness, Purity and Potency

Omega-3 oils are among nature's most potent natural anti-inflammatories. The key anti-inflammatory compound in the omega-3 family is EPA (Eicosapentaenoic acid). This is the immediate precursor to the anti-inflammatory tissue prostaglandins.

For many reasons, Salmon Oil is the best source of the omega-3 fatty acids. Plant sources of omega-3 do not have EPA. Furthermore, two separate studies have shown that supplementing with plant sources of omega-3 is not a very effective means of increasing tissue levels of EPA.^{1,2}

GNLD Salmon Oil also contains the amount of EPA listed on the label. That is a strange thing to say, but studies done at Tufts University in 1988 found that

It should be noted, however, that nutrition can play a big role in the inflammatory process. Unrestrained free radical damage contributes to the inflammatory process. Antioxidants including vitamin E, flavonoids, ginger, zinc and selenium are well known to reduce the severity of the inflammatory response. Vitamin C and carotenoids also play a critical role in the body's antioxidant activity.

Salmon Oil has been shown to not only have an anti-inflammatory effect at the tissue level, but also to displace one of the body's most powerful inflammatory fats (arachidonic acid).

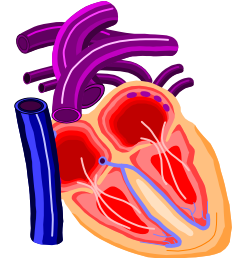
One study found that supplementation of the diet with fish oils reduced leukotriene B4 production almost 100 fold--a remarkable finding. This is one of the major inflammatory actors in the human body.

This powerful activity of fish oils may explain why so many studies have shown them to have tremendous benefits for the heart. Fish oils appear to do everything from regulate heart

beat to reduce the risk of clogging of the arteries and heart attack

References:

1. Haney, Daniel, "A seismic shift in heart care," *The Sacramento Bee*, August 4, 2002, p. A.1.
2. "Studies bolster inflammation-heart disease link," *USA Today*, Health & Science, Nov. 6, 2001.
3. Schmidt, Michael, *Childhood Ear Infections*, Berkley, CA: North Atlantic Books, 1990, p. 252.
4. Lee, Tak, et al., "Effect of Dietary Enrichment with Eicosapentaenoic and Docosahexaenoic Acids on in Vitro Neutrophil and Monocyte Leukotriene Generation and Neutrophil Function," *NEJM*, 312; 1217, 1985, p.1217-1223.



Recent research indicates that inflammation may be as important a contributor to heart disease as cholesterol.

where blood fat levels are elevated..

References:

1. Ray Rice MS, Ph.D., AIFST, Principal, Reapers Consultancy (Service to the Health Food Industry), Tiverton, Devon.
2. Brouwer, DAJ, et al., "Gamma Linolenic Acid Does Not Augment Long-Chain Polyunsaturated Fatty Acid omega-3 Status," *Prostaglandins Leukot Essent Fatty Acids*, 1998; 59(5):329-334. Quote from *Clinical Pearls News*, April 1999, p. 69.
3. *Tufts University Diet and Nutrition Letter*, Volume 5, Number 11, January 1988.





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Office Hours

We are open from 10:00 a. m. — 6:00 p.m. Monday through Friday. If these times are inconvenient let us know and we will make every effort to accommodate your needs.

Questions for Jim

I am taking a class from a registered dietician who says that taking supplements is a waste of money. What are your thoughts on this? Mark

It is possible to obtain excesses of nutrients. As DR. Furst is fond of saying, "Anything is potentially harmful in excess quantities." A congressman asked him, "Even water?" He replied, "Yes, you can drown!"

The nutrients most likely to be consumed in excess would be fat soluble nutrients such as vitamin A and minerals such as iron or selenium.

GNLD products are put together in such a manner that it would be very difficult to obtain excessive quantities of nutrients.

The vast majority of Americans are not suffering from excessive nutrient intake, but rather from deficiencies. As a matter of fact one of the issues of the Journal of the

American Dietetic Association discussed the fact that only 22% of American diets obtained 2/3 of the RDA for a number of basic nutrients. Can adequate nutrients be obtained from eating the right foods. Possibly, but not the way most Americans eat. As Roger Williams pointed out long ago, optimal nutrition is probably rather rare in nature. Otherwise, a single yeast cell would produce enough offspring in a week to constitute a ball the size of the earth.

Why doesn't GNLD sell flavonoids from pine bark?

Pine bark is rich in flavonoids, particularly proanthocyanidins. This is only one of 12 subcategories of flavonoids--this is a big family with over 5,000 members identified so far.

Most of the claims made for pine bark have been exaggerated. The research used to promote pine bark often has nothing

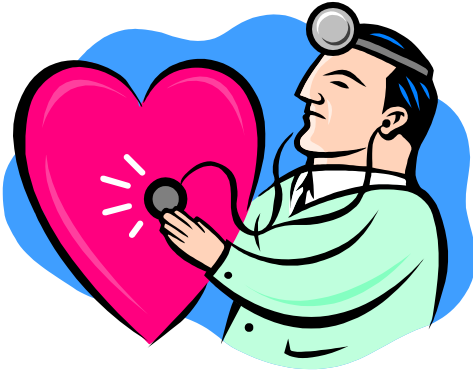
to do with pine bark, but relates to the benefits of flavonoids in general. One study is referred to which claims that pine bark is 50 times more powerful than vitamin E. This study was actually conducted with flavonoids from green tea and persimmons. Comparing vitamin E to flavonoids is like comparing apples and oranges. Flavonoids are water soluble and vitamin E is fat soluble. One would expect flavonoids to work better in a water soluble environment and vitamin E in a fat soluble environment. Both are valuable nutrients. Pine bark is overrated as an antioxidant by many who promote it.

Challem, Jack, "A Critical Look at Flavonoids," *NFM's Nutrition Science News*, July 1996, p. 20.

Uchida, S., et al. *Med Sci Res*, 15:831-2, 1987.



Breaking News: HRT is Dangerous (JAMA)



The *Journal of the American Medical Association* will soon announce that one of the largest clinical trials of hormone replacement therapy ever conducted has been cancelled due to increased risk of stroke, blood clots, heart disease and breast cancer. In the United States 6 million women are currently using the estrogen and progestin combination shown to be harmful in this study. Among every 10,000 of these women there will be an additional 8 cases of invasive breast cancer, 7 heart attacks, 8 strokes, and 18 with blood clots.

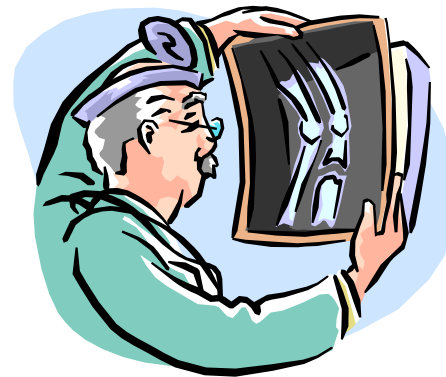
The increased incidence sounds small until one realizes that the actual incidence of problems would be 600 times greater due to the number of women using this therapy. That would be: 4800 cases of breast cancer, 4200 heart attacks, 4800 strokes, and 10,800 cases of clots per year of HRT use! Over a ten year period 246,000 incidents would have taken place. This is assuming that the risk would not increase with each successive year of hormone use which is probably not a very good assumption to make.

This risk of estrogens and progestins in the form of birth control pills was pointed out in a book titled *The Bitter Pill* by Ellen Grant, M.D., in 1985. Since the book is out of print, (it is difficult to believe this book has not been suppressed) you will find a review at our web site at the following URL or address:

<http://www.imageawareness.com/pages/books.html>

Grant was one of the key physicians supervising the introduction of the birth control pill into England when it was introduced. Ten years of study convinced her that there was no form of the pill that would not have serious side effects for a certain percentage of the women who used it.

The Women's Health Initiative which was conducting the study written up in *JAMA* called it to a halt over three years before the planned conclusion of the experiment because the hormone replacement therapy was so obviously harmful that it was considered unethical to continue the study.



Hormone replacement therapy has been promoted for reduction of heart disease and the prevention of osteoporosis as well as the relief of menopausal symptoms. This study raises the question of whether a woman who has her ovaries should do conventional HRT at all.

Sadly, over 600,000 hysterectomies are done every year in the United States. There is a good argument to be made that most of these surgeries are unnecessary. I would suggest any who questions this read Stanley West's book *The Hysterectomy Hoax*. Women who have had a hysterectomy may benefit from some kind of hormone replacement.

Unfortunately, the medical community and the pharmaceutical firms have

refused to duplicate nature's pattern when using hormone replacement therapy.

For example, nature never put a progestin in a woman's body. Progestins are synthetic hormones which are modifications of the natural hormone progesterone. Provera (a progestin) has been shown to increase the risk of coronary artery spasms.

Why doesn't medicine use the natural hormones in the natural ratios? Primarily because pharmaceutical houses can not patent natural substances.

There is an even better question to ask, however. Why do we not focus on normalizing hormone levels in the body with proper nutritional support? It has been evident for over 40 years that sound nutrition can benefit both hormone production and overall hormone balance.

In the 1950's researchers in Southern California demonstrated that extracts from wheat, rice, and soy combined with other nutrients could undergird the body's ability to produce adequate quantities of hormones in the proper balances. This research later led to the introduction of the first four factor nutritional supplement--Formula IV with Tre-en-en (wheat, rice and soy) concentrates.

References:

The Journal of the American Medical Association July 17 2002;288:321-333.
Stanley West, M.D., *The Hysterectomy Hoax*,



A Brief History of Formula IV

In the 1950's medical doctors noted that a good many of their patients were suffering from chronic fatigue and other complaints. Physical examination of these people did not show anything wrong.

In an effort to better understand what was going on the researchers purchased a polarograph, a piece of equipment which made it possible to study what was going on within the cells and the glandular system.

Polarograph studies indicated that something was fundamentally wrong with these patients at the cellular and glandular levels. They were not producing energy and not repairing damage to the tissues in an optimal manner.

It soon became obvious that the lack was nutritional, but the problem had little to do with missing vitamins or minerals. Studies of the American diet revealed that the lack was oils which

were being refined out of grains and legumes. These quality oils included substances found in the germ and other layers of the wheat berry, the bran of rice, and the outer shell of the soybean--all of which were discarded or fed to animals.

Extracts of these substances were developed over a period of several years and tested on animals, patients in hospitals, and on athletes. All of these studies demonstrated that the oils from the grains were indeed highly beneficial in promoting the health of individual cells and also optimizing glandular functioning. One capsule of these oil concentrates would be equivalent to eating between 2 1/2 and 3 1/2 pounds of wheat, rice, and soybeans. This is comparable to consuming the oils in 6-11 servings of whole grains suggested by the Food Guide Pyramid developed by the USDA.

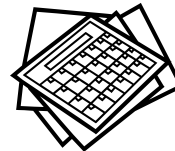
Question for Jim

With the recent discovery that HRT does not protect against heart disease and may be risky for osteoporosis prevention, are there any other options?

There have always been nutritional options to prevent heart disease including eating less fatty foods, less rancid fat, less sugar and maintaining an adequate intake of antioxidants such as carotenoids, vitamin C and vitamin E. Lipotropic factors and homocysteine antagonists (see the information on Lipotropic Adjunct in the article on Alzheimer's) can also play a major role in prevention of heart disease.

There are also nutritional options for the prevention of osteoporosis. These includes glandular support with Formula IV Plus, Feminine Herbal and bone support with Chelated Cal-Mag. Vitamin D is also very important for bone formation and strength.

Calendar of Events



July

July 11-14

IST meeting.

Wednesday July 17 10:00 a.m. - 12:00 p.m.

Meeting for Larry McAfee in Roseburg, Oregon. Location: 437 N.E. Nash. Phone: 541-672-1946.

Thursday July 18

7:00 p.m. -9:00 p.m.

Best Western Executive Inn, 5700 Pacific Hwy East, Fife/Tacoma, Washington. Anitha Russell (253)922-0080.

Saturday July 20

10:00 a.m. - 12:00 p.m.

Seminar for Bob Pearson. Emerald Baptist Church, 631 East 19th, Eugene, Oregon. Phone: 541-687-0590.

Sunday July 21

4:00 p.m.- 6:00 p.m.

Seminar in Redding, CA for Shirley

Eggert. C. R. Gibbs Best Western, 2300 Hilltop Drive, Redding, CA. Meeting is upstairs. Phone: 530-247-1063.

August

August 13

7:00-8:30 p.m.

Seminar for Anna Marie Harrison in Vacaville on Weight Loss and Diabetes. Phone: 707-455-7999

August 20-21

Talk for the Carson City Rotary. Seminar for Sally Bilyeu in Carson City.

August 27-September 1

International and American Associations of Clinical Nutritionists. Chicago

September

Monday, September 9

Seminar for Betty Herman in San Francisco Bay Area (Pleasant Hill).

Phone: 510-947-1572.

Th. & Fri. September 26-27

Seminar for Jack and Dale Kaiser in Chowchilla. Phone: 559-665-5715.

October

Monday, October 7

Seminar for Betty Herman in San Francisco Bay Area. Phone: 510-947-1572.

