Fish Oil Pills: Ineffective and Dangerous

Fish oil pills have become one of the most widely used supplements on the market, with sales reaching nearly $1.1 billion in 2011. Many patients come to me already taking fish oil pills. When I ask them why, most respond that they want to prevent heart disease, or that they are taking the supplements as an anti-inflammatory.

Almost all of them are surprised to learn what I will tell you now: Long-term (over one month) use of fish oil pills does not have anti-inflammatory effects, and it does not prevent heart disease.

The fish oil supplement industry, which includes Big Pharma, would be happy to have you keep buying their products. But the real research shows that they are not effective in treating or preventing heart disease.

In this issue of Natural Way to Health, I’ll tell you why fish oil does not offer the benefits many expect, and why taking too much could actually be detrimental to your health.

Biochemistry of Fish Oil

My views on fish oil have developed from 20 years of clinical experiences with patients, along with close study of the biochemistry behind fatty acids.

Another valuable source of information is Professor Brian Peskin, who has written extensively about fatty acids and the problems with fish oils.

Professor Peskin and I have been in direct communication for many years, and his insights and ideas have been an invaluable contribution to my understanding of fish oil. His new book on the subject, entitled PEO Solution, is highly recommended.

In order to understand the idea behind using fish oil as a supplement, you need to know a little basic biochemistry. Both omega-3 and omega-6 fatty acids are referred to as essential fatty acids. Fish oils are part of the omega-3 fatty acid family, while vegetable oils such as corn and soy are part of the omega-6 fatty acid family.

Professor Peskin refers to these as “parent” fatty acids. And they are vital to our health. In fact, if we don’t get enough of these parent fatty acids in our diets, we will die.

A fatty acid is a chemical substance that contains a carboxylic acid with a long carbon tail — also known as an aliphatic tail. This tail can be either saturated or unsaturated.

Saturated fatty acids — such as lauric acid, which is found in coconut and palm oils — contain no...
double bonds between the carbon atoms.

On the other hand, unsaturated fatty acids are missing hydrogen atoms, and contain one double bond. Polyunsaturated fatty acids contain more than one double bond.

These double bonds make the unsaturated and polyunsaturated fatty acids more unstable than saturated fatty acids. The more double bonds a substance has, the greater its instability.

Due to their instability, unsaturated fatty acids do not do well in high heat, such as frying. Saturated fatty acids can withstand high temperatures better.

There are two groups of essential polyunsaturated fatty acids, called parent omega-6 and parent omega-3 fats. The “6” and “3” indicate where the double bond occurs in the carbon tail.

The human body needs these essential fats for a variety of functions, including healthy cells and maintaining brain and nervous system function.

### Omega-6 Aids Brain Health

The majority of the body’s essential fatty acids are the omega-6 type. Plasma — the liquid component of blood that holds cells in suspension — contains 15 percent omega-6 fatty acids and just 1 percent omega-3 fatty acids.1

Indeed, too much omega-3 fatty acid can inhibit the omega-6 fatty acid pathway.

In humans, both omega-3 and omega-6 fatty acids are metabolized by the same enzymes: delta-5 and delta-6 desaturase. It makes sense that too much of one fatty acid will require the body to utilize more resources — delta-5 and -6 desaturase — to break down the product at the expense of the other fatty acid.

That is exactly what happens when one supplements, over a long time period, with a lot of omega-3 fats.

A rodent study examined the effects of giving mice different amounts of fatty acids from conception until 12 days after their birth.2 (Fatty acid metabolism is similar in rodents and humans.)

During this time, the mice were fed combinations derived from omega-6 fatty acids (safflower oil) and omega-3 fatty acids (fish oil).

When the scientists examined the rodent brains at 12 days old, they found that increasing the ratio of omega-3 to omega-6 fatty acid content was associated with smaller brains.

The scientists concluded that the optimal ratio of omega-6 to omega-3 fatty acids is between 1:2 and 1:4.
Long-Term Use of Fish Oil Won’t Help Any Condition

Fish oil, part of the omega-3 fatty acid family, are produced by fish because they contain multiple double bonds — five in the type called eicosapentaenoic acid (EPA), and six in docosahexaenoic acid (DHA).

The reason that fish oil contains so many double bonds is that fish live in a cold environment. Oils such as EPA and DHA keep tissues from freezing and blood from coagulating in very cold water.

Therefore, fish oil is adaptive for species that live in the coldest parts of the ocean. In fact, coldwater fish have 14 times more omega-3 fatty acids than warm water fish.

One of the major problems with fish oil is that they are not stable at higher temperatures, including the temperature of the human body.

Professor Peskin writes, “Regardless of antioxidant levels added to the fish oil supplement, rancidity/peroxidation upon ingestion is a very significant and problematic issue. Because of the five double bonds in EPA . . . [it is] highly sensitive to temperature. [Fish oil] spontaneously oxidizes at room temperature . . . ”3

Monkeys fed fish oil were found to have signs of oxidative damage. And no level of antioxidant ingestion was found to protect against this damage.4

The American Heart Association (AHA) recommends that patients with documented cases of heart disease consume about 1 gram of fish oil with EPA and DHA per day. They note that it is better to get the omega-3 from fatty fish, but state that fish oil pills can be considered as an alternative source.

Furthermore, the AHA suggests that those who need to lower their triglyceride levels should consume 2 to 4 grams of fish oil per day in supplement form.5

As I have said many times, it’s wise to question recommendations coming from Big Pharma or any of the conventional organizations that receive funding from corporate sources. The American Heart Association is such an organization.

Understanding the biochemistry of fish oil, one would assume that these supplements won’t help any condition, including heart disease. In fact, ingesting large amounts of fish oil capsules can actually lead to adverse health issues.

Remember, the long-chain fatty acid derivatives in fish oil (EPA and DHA) are designed to keep fish alive in cold temperatures. Exposing fish oil to higher temperatures, including the temperature of the human body, could result in oxidation or damage to the oil.

Therefore, long-term ingestion of fish oil can be expected to lead to significant inflammation. It may be protected from oxidation while it is in the capsule. But once ingested, that protection literally dissolves.

Increased Risk of Prostate Cancer

A recent JAMA study was designed to assess the role of omega-3 supplements on major cardiovascular outcomes.6 The authors looked at 20 studies of 68,680 patients, and found that omega-3 fatty acid supplements were not associated with a lower risk of all-cause mortality, cardiac death, sudden death, heart attack, or stroke.

Another study, called the SELECT trial (Selenium and Vitamin E Cancer Prevention Trial) found that fish oil and its DHA component significantly increased the risk of prostate cancer — particularly high-grade prostate cancer.7

The authors studied 834 men with prostate

Continued on page 5

David Brownstein, M.D., is a board-certified family physician and one of the foremost practitioners of holistic medicine. Dr. Brownstein has lectured internationally to physicians and others about his success with nutritional therapies in his practice. His books include Drugs That Don’t Work and Natural Therapies That Do; Iodine: Why You Need It, Why You Can’t Live Without It; Salt Your Way To Health; The Miracle of Natural Hormones; Overcoming Arthritis; Overcoming Thyroid Disorders; The Guide to a Gluten-Free Diet; B12 For Health; The Guide to a Dairy-Free Diet; and The Soy Deception. He is the medical director of the Center for Holistic Medicine in West Bloomfield, Mich., where he lives with his wife, Allison, and their teenage daughters, Hailey and Jessica. For more information about Dr. Brownstein, please go to www.drbrownstein.com.
Infection Gives Rise to Arthritis

In each issue, I will share with you the story of one of my patients and how sometimes simple alternative approaches can solve major health problems. Names and some details have been changed for privacy’s sake, but the problems and their resolutions are real.

— Dr. David Brownstein

Mary Ann first came to my office four years ago. She had been diagnosed three years earlier with rheumatoid arthritis (RA), an autoimmune inflammatory disorder that typically affects the small joints in the hands and feet before progressing to the larger joints.

RA can be a crippling disease, affecting the lining of joints and causing painful swelling accompanied by heat and redness. Eventually, it can result in joint deformity. It is three times more common in women than men, and usually begins between ages 40 and 60.

‘I Feel Stupid’

At the time of her first visit, Mary Ann was taking prednisone that had been prescribed by her rheumatologist. She had also been prescribed Enbrel, but quit taking it because she could not tolerate the side effects.

Mary Ann explained that her RA had started after she suffered a fall five years before the diagnosis. “Since then, I’ve never felt the same,” she told me. “I ache all over and I have no energy. I can’t remember names and dates. I feel stupid.”

Lab tests showed that Mary Ann had antibodies to dairy (casein antibodies) and gluten (anti-gliadin antibodies).

She also had low sodium levels (133 mmol/L, normal is greater than 140 mmol/L), as well as low levels of DHEA, pregnenolone, and iodine.

Mary Ann also tested positive for antibodies to her thyroid gland (thyroid peroxidase antibodies). Furthermore, her lab tests indicated a mycoplasma infection.

Mycoplasma is a non cell-walled bacterium, meaning that it has to live inside its host’s cells. Lacking a cell wall makes this bacterium resistant to many commonly used antibiotics, such as penicillin.

Mycoplasma bacteria has been linked to various arthritic disorders for more than 100 years.

For nearly 70 years, mycoplasma-specific antibiotic therapy has been effective at eradicating these infections.

Antibiotics Cure the Pain

When Mary Ann came back to review her testing, I told her that she needed to improve her diet, especially avoiding gluten and dairy. My experience has shown a relationship between both gluten sensitivity and celiac disease and Hashimoto’s disease.

Hashimoto’s is an autoimmune condition of the thyroid gland that causes the body to produce thyroid peroxidase antibodies. I have had many patients improve or overcome Hashimoto’s disease by simply removing gluten from their diets.

Dairy is another common allergen that can lead to inflammation. A majority of people suffering from an inflammatory disorder have some kind of dairy sensitivity. Antibodies to casein (a protein in dairy) point toward an intolerance.

I also asked Mary Ann to take the adrenal gland hormones DHEA (10 mg per day) and pregnenolone (25 mg per day) to help with tissue-rebuilding and improve her overall energy and strength. In addition, I prescribed 25 mg of iodine per day.

Lastly, I prescribed the antibiotics minocycline and azithromycin to treat her mycoplasma infection. I have found this combination to be effective for treating mycoplasma.

Along with antibiotic therapy, I asked Mary Ann to take probiotics. All antibiotics can cause dysbiosis or an imbalance of gut bacteria. To prevent this, I always suggest taking a probiotic along with the antibiotic.

The vast majority of patients suffering from arthritic disorders — particularly autoimmune arthritic disorders such as rheumatoid arthritis, lupus, Sjogren’s syndrome, psoriatic arthritis, and scleroderma — have an infection as the underlying cause of the illness. Identifying the infectious agent may take a little work, but it’s worth the effort.

Once identified, specific antibiotic therapy can be implemented. I have found this approach to be effective for treating a wide range of illnesses.

My experience has shown that the antibiotic treatment of arthritic and other autoimmune disorders will be long-term — from at least six months to several years.

It took Mary Ann four months to start feeling better. Since that time, she has steadily improved. In all, I treated her with antibiotics for three years. More about the relationship between infections and arthritis can be found in my book, Overcoming Arthritis.
cancer and matched them to 1,393 men who were randomly selected. Compared to the men with lowest quartiles of fatty acid intake, men in the highest quartile had a 43 percent greater risk for prostate cancer, and a 71 percent greater risk for high-grade prostate cancer.

On the other hand, higher omega-6 fatty acids were associated with a 25 percent reduced risk of low-grade prostate cancer, and a 23 percent lower risk of overall prostate cancer.

The 2011 Prostate Cancer Prevention Trial found similar results: Omega-3 fatty acids were associated with a large increase in prostate cancer. In this study, the researchers reported that compared to those in the lowest quartile of omega-3 fatty acid intake, those in the highest quartile had a 250 percent greater risk of high-grade prostate cancer.

As I noted, studying the biochemistry of essential fatty acids would lead one to predict problems if either omega-3 or omega-6 fatty acids are ingested at extreme amounts.

Omega-3 type is more dangerous due to the large number of double bonds it contains.

Furthermore, ingesting oxidized versions of either omega-3 or omega-6 fatty acids can be expected to harm the body. Keeping in mind that omega-3 fats spontaneously oxidize at human body temperatures, problems are likely to develop when taking fish oil as a supplement.

**Fish Oil and Cardiovascular Disease**

I don’t know why anyone would think that fish oil supplementation would help cardiovascular disease. The innermost lining of arteries, known as the endothelial lining, does not contain any omega-3 fatty acids.

Rather, it is the parent omega-6 containing endothelial lining that is intimately involved with the development of heart disease. Therefore, it’s better to ingest healthy, non-oxidized sources of omega-6 fatty acids.

Examples include meat or eggs from organically raised animals. Organically raised vegetables, nuts, and seeds also contain healthy sources of omega-6 fatty acids.

Unfortunately, the standard American diet is replete with oxidized sources of omega-6 fatty acids. Nearly all supermarket vegetable oils — such as corn, soy, and canola — contain omega-6 fatty acids that have been highly processed and refined.

The refining process leaves the end product devitalized and oxidized. Heating these oils damages them even more.

All vegetable oils found in clear containers should be avoided. For cooking and heating purposes, it is best to use coconut or palm oil. The saturated fat-based oils can withstand high temperatures much better than vegetable-based oil.

I will have more to say about fats and oils in my upcoming book, *The Skinny on Fats.*

**The Cancer-Iodine Connection**

The body requires iodine to metabolize both omega-3 and omega-6 fatty acids. A substance called delta-iodolactone, which is produced in the thyroid gland and breast tissue, is a regulator of a process called cellular apoptosis (“cell death”).

This means that delta-iodolactone ensures that the cells have a lifespan; at the end of that lifespan, the cells die.

Contrast that with a cancer cell, which keeps multiplying until it causes the death of the organism. In fact, a cure for cancer might be found by discovering the mechanism by which delta-iodolactone induces cell death.

Unfortunately, the recommended daily allowance (RDA) for iodine — about 150 mcg per day — will not cause delta-iodolactone to be formed in the thyroid gland. In fact, the thyroid requires iodine concentrations much higher to produce it.

Researchers have found that 100 times the RDA of iodine is required to produce delta-iodolactone.
Antacids Deplete Vitamin B12
A report published in the December 11, 2013 issue of JAMA, examined the association between vitamin B12 deficiency and the length of time a patient took an acid-blocking medication. The study included proton pump inhibitors and histamine 2 receptor antagonists, both common antacid medications.

The scientists looked at results from nearly 26,000 patients diagnosed with B12 deficiency, and compared them to more than 180,000 control subjects. They found that those who took proton pump inhibitors for two or more years had a 65 percent higher risk of B12 deficiency. Two or more years of a histamine 2 receptor antagonist was associated with a 25 percent increased risk of B12 deficiency. Those who took two or more acid-blocking pills per day had a 95 percent increased risk of B12 deficiency.

If you are prescribed an antacid medication, it is best to take it for the shortest time possible. If you must be on such a medication long term, consider supplementing vitamin B12 by injection. There is no reason to take it orally, as you need sufficient stomach acid to properly digest and absorb it.

Vitamin C Fights Cancer
Researchers published a study on the effects of high-dose intravenous vitamin C therapy on ovarian cancer in the January 2014 issue of Science Translational Medicine. They examined seven human ovarian cancer cell lines and found that all of them were susceptible to vitamin C at levels easily achieved with IV therapy.

The authors found that vitamin C damaged the DNA of the cancer cells. In addition, they reported that when chemotherapy agents were added alongside vitamin C, there was even more damage to the cancer cells’ DNA.

Holistic doctors have known about the benefits of vitamin C in treating cancer for many years. In fact, vitamin C was proposed as an anticancer agent more than 50 years ago. However, conventional medicine refused to recognize the effects of vitamin C, and derided those who promoted it.

I have been criticized by oncologists for telling my patients that they need to take nutritional support when they are undergoing chemotherapy or fighting cancer. This study is proof of that concept.

It is a disgrace that oncologists are knowledgeable about poisons that have little effect on cancer outcomes, but have zero knowledge (and much opposition) to using natural substances to enhance the body’s ability to fight off and prevent cancer.

Danger: Americans Eat Too Much Sugar
Researchers reported in the February 3, 2014 issue of JAMA Internal Medicine that adding sugar to the diet could significantly increase the risk of dying from cardiovascular disease. Data was obtained from the 2005-2010 National Health and Nutrition Examination Surveys (NHANES), which examined a cross section of the U.S. population for nutritional and toxicity parameters.

The researchers found that 71 percent of U.S. adults get at least 10 percent of their total calories from added sugar.

Among 10 percent of the studied population, 25 percent of total calories came from sugar.

In addition, there was almost three times greater risk of cardiovascular disease mortality in subjects whose sugar intake constituted 25 percent or more of total calories compared to subjects with a sugar intake of 10 percent or less.

An accompanying editorial stated, “The new paradigm views sugar overconsumption as an independent risk factor in cardiovascular diseases, including diabetes mellitus, liver cirrhosis, and dementia — all linked to metabolic perturbations involved in dyslipidemia, hypertension, and insulin resistance. Too much sugar does not just make us fat; it can also make us sick.”

By now, it should be obvious: You should avoid refined sugar. Refined sugar is a devitalized food that leads to a host of health problems including weight gain, cirrhosis, insulin resistance, hypertension, elevated triglycerides, cancer, inflammation, and heart disease.

Common sources of refined sugar include sugar-sweetened juices and soda, desserts, candy, cookies, cakes, packaged cereals, and breads.

One of the worst sources of refined sugar is sugar-sweetened sodas and juices. It is imperative to limit a children’s sugary beverage intake.
That equates to taking about 15 mg of iodine per day. When I lecture about iodine, I cover this topic thoroughly.

After testing more than 6,000 patients (between my partners and myself), I have learned that more than 96 percent are iodine deficient — and most are significantly deficient.

These patients can be certain to not be producing delta-iodolactone. Perhaps this would explain why so many people have thyroid and breast problems.

What does this have to do with fish oil? Fish oil needs iodine to be metabolized to delta-iodolactone derivatives.9

If iodine is required to metabolize fish oil, then patients taking fish oil supplements who happen to be iodine deficient could be exposed to more adverse effects from the oils, including problems with both the breast and thyroid tissue.

We are currently experiencing an epidemic of cancer of the breast and thyroid diseases.

If you take fish oil supplements, you need adequate amounts of iodine to metabolize it into the anticancer substance delta-iodolactone.

I believe that fish oil supplementation is going to make the iodine deficiency epidemic we are facing even worse.

---

**Fish Oil: Bad for Diabetics**

Diabetes is America’s number one epidemic, and it is well-known that fish oil supplements cause a rise in blood sugar levels. Therefore it is no surprise that fish oil supplements and oily fish have been shown to cause problems with diabetics.

A July 2011 study published in the American Journal of Clinical Nutrition compared the effects of a diet rich in omega-3 or omega-6 fatty acids on glucose levels in Type 2 diabetics. This was a crossover study where participants were provided with diets with either high omega-3 fatty acids or omega-6 fatty acids through the inclusion of fatty fish or lean fish and fat containing omega-6 fatty acids.

The authors reported blood glucose concentrations were lower with omega-6 fatty acids than with omega-3 fatty acids.

Continued from page 5

**Balance Is Essential**

Should you stop eating fish? Frankly, the answer is unclear. But taking fish oil supplements is different from eating fish. A fish oil supplement supplies the body with large amounts of derivative omega-3 fats only — but not with the critical “parents.”

Eating three ounces of canned, light tuna supplies the body with about 200 mg of omega-3 and much smaller amounts of omega-6 fatty acids.

Tuna also has saturated and monounsaturated fatty acids along with vitamins and minerals. Eating fish is much healthier than taking fish oil pills.

Occasionally, an antioxidizing vitamin such as vitamin E or beta carotene is added to a fish oil supplement, but it lacks the vitamins, minerals, and other fatty acids naturally found in fish.

One more cautionary note about fish: They are contaminated with mercury. Tuna and swordfish have some of the highest levels of mercury. More than 70 percent of patients have mercury toxicity.

If you are going to supplement with fish oil, you should make sure that you have adequate iodine intake. More information about iodine can be found in my book, Iodine: Why You Need It, Why You Can’t Live Without It.

Supplementing with good sources of essential fatty acids in the right balance is beneficial. I recommend using flaxseed oil and sunflower oil in a 2:1 ratio, which supplies omega-3 and omega-6 in a ratio of 1:4, respectively.

Finally, prescription fish oil pills should always be avoided. They are too concentrated and will drastically disrupt the body’s biochemical pathways.

I have not seen a single patient improve any condition by taking prescription fish oil pills for a long term.

---

**REFERENCES**

Ask Dr. B

Dear Readers,

I will try to answer as many questions as I can. However, because of the volume of questions, I cannot answer each letter personally. Please include your full name, city, and state when submitting. If you have a question for me, please email it to: askdrdavid@newsmax.com.

Cherries Ease Gout Attacks
Can you tell me how to treat gout? What foods should I eat or not eat?

— Vincent C., Clermont, Fla.

Gout is characterized by attacks of severe pain in a joint. Typically, it occurs near where the big toe meets the forefoot, an area called the metatarsophalangeal joint. However, it can also occur in the knees, ankles, and elbows.

It is caused by high levels of uric acid crystals that deposit in the joints, tendons, and surrounding tissues. A gout attack is characterized by a swollen, warm, red area overlying a joint.

Conventional medicine treats gout with strong nonsteroidal anti-inflammatory drugs (NSAIDs), steroids, and/or the drug colchicine, which is very effective, but also very expensive.

Cherries are effective for treating and preventing gout attacks. A study in the journal Arthritis and Rheumatism found that cherry intake was associated with a 35 percent lower risk of gout attacks.

Cherry juice concentrate is equally effective. Cherries may work by decreasing serum uric acid levels. They are also high in anthocyanins, which are potent natural anti-inflammatory compounds.

Eating a healthy diet also helps prevent gout attacks. This includes avoiding refined foods, eating whole foods, and drinking adequate amounts of water. Avoiding excess alcohol helps prevent gout.

If you have an acute gout attack, I suggest eating one-half to a pound of red cherries, or drinking 1 oz. of tart cherry juice three times a day.

But don’t tell the FDA — they may take your cherries away as an “unapproved drug.”

Autoimmune Response to Infection
I have had a skin problem on my scalp for 15 years. One diagnosis was psoriasis and the other seborrheic dermatitis. I am now having joint stiffness in my shoulders and wrists, which increases when I have a cold. Do you have any idea what it might be?

— Robert M., Cary, Ill.

You may have an infection. Common infections associated with autoimmune disorders include non-cell walled bacteria like mycoplasma and chlamydia.

If there is an active infection with these organisms, low-dose antibiotic therapy along with immune system support is very effective.

I have seen patients with many varied autoimmune conditions respond to this approach including rheumatoid arthritis, scleroderma, Hashimoto’s disease, Graves’ disease, lupus, and Sjogren’s syndrome. Psoriasis can also respond to this approach.

Appropriate laboratory testing can diagnose an infection and help guide you to find the appropriate therapy.

I have written extensively about this approach in my book, Drugs That Don’t Work and Natural Therapies that Do!

Balance Your B Vitamins
I have read that supplementing B vitamins individually can cause deficiency in other B vitamins. So I have always made sure I take an all-natural B-complex supplement. Am I incorrect in this thinking?

— Paul C., Calgary, Alta.

I think it is important to keep all of the B vitamins balanced. However, I have not found that prescribing individual B vitamins, including B1 (thiamine), B6 (pyradoxamine), and B12 (cobalamin), causes other B vitamin deficiencies.

Having said that, there is certainly nothing wrong with taking a B-complex 100 or a multivitamin that contains the B-vitamins with any other B-vitamin therapy.

To your good health,

David Brownstein, M.D.