



Article 22\*

## The Non-Medicated Life: The Benefits of Eating Fish

by Paul E. Lemanski, MD, MS, FACP

\*Originally published in Adirondack Sports & Fitness Magazine ([www.ADKSportsFitness.com](http://www.ADKSportsFitness.com))

*This is the 22nd in a series on optimal diet and lifestyle to help prevent disease and responsibly avoid an over reliance on medications. This complementary approach is based in the medical evidence of the most successful research trials and the best science available. Any planned change in diet, exercise or treatment should be discussed with and approved by your personal physician before implementation. Consultation with a registered dietitian is strongly advised.*

Medicines are a mainstay of American life and the healthcare system not only because they are perceived to work by the individual taking them, but also because their benefit may be shown by the objective assessment of scientific study. Clinical research trials have shown that some of the medicines of Western science may reduce the risk of heart attacks, strokes, and cardiovascular death.

In the first nineteen installments of the Non-Medicated Life, informed diet and lifestyle have been shown to accomplish naturally for the majority of individuals, many, if not most of the benefits of medications. This is without question true for the consumption of fish which has been shown in a number of clinical trials and observational studies to decrease the risk of fatal heart attacks, sudden cardiac death, stroke and dementia. Arguably, no other single food has been shown to provide so many diverse and significant health benefits as fish.

Fish is a truly a heart healthy food. It is naturally low in saturated fat and consuming it in place of foods high in saturated fat may lower LDL or the bad cholesterol. Readers may recall (see the Non-Medicated Life: A New Laboratory Test to Assess Heart Attack Risk) that it is the LDL cholesterol which deposits in artery walls, the first step in atherosclerosis, a process ultimately responsible for heart attacks and strokes. Additionally, fish contains omega-3 polyunsaturated fats.

Omega-3 fats in fish oil have been shown to reduce blood pressure modestly, decrease blood clotting tendency, and decrease arrhythmias. Arrhythmias are abnormal irregular, rapid beating of the heart which may occur at the time of heart attacks and may cause sudden death; fish oil may decrease arrhythmic death by 50%. Fish oil in high dose under a physician's care may also reduce blood fats called triglycerides by 50%.

The scientific evidence for the benefit of consuming fish and fish oil is robust. In the Gissi Prevention study, patients were given an omega-3 fish oil supplement within three months after a heart attack. Compared to placebo there was a 20% subsequent reduction in the risk of death, a 30% reduction in cardiovascular death, and a 45% reduction in sudden death. In a prospective study of over 1800 men without heart disease, those with the highest intake of fish oil over 10 years had 44% fewer adverse heart events compared to those with the lowest intake. In an analysis of 11 studies involving over 16,000 patients, a diet high in omega-3 fats or the use of an omega-3 fish oil supplement showed significant reductions in fatal heart attack, sudden death and total mortality with an equal benefit realized whether the omega-3 fats were obtained from diet or supplements.

The cardiovascular benefits of consuming fish  
*(continued on back)*



CENTER FOR  
PREVENTIVE MEDICINE  
Prime Care Physicians, PLLC 

and the oil it contains is so significant that for those with established heart disease the American Heart Association (AHA) recommends the daily consumption of fish containing 1000 mg/ day of EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid), the two main omega-3 constituents of fish oil. For those without heart disease who wish to take it as a preventive, the AHA recommends 2,000-3,000 mg/ week. Although the data is still preliminary, there is evidence that fish consumption may also reduce the risk of dementia. In the Cardiovascular Health Study, participants who ate a fatty fish meal more than twice a week evidenced a 28% lower risk to develop dementia than those who consumed fish less than once a month.

While all fish contain omega-3, so-called fatty fish contain the most. Four ounces of fatty fish such as sardines, mackerel, anchovies (the high salt content of anchovies contraindicates their consumption in those with hypertension or heart failure), salmon or herring supply between 1,000 and 1,500 mg of EPA and DHA. For those who cannot get their omega-3 fish oil from the consumption of fish, 1000 mg fish oil supplement capsules or liquid may be considered. Usually such 1000 mg capsules contain only 200 to 300 mg each of EPA and DHA, so that two to three capsules may be required. For those consuming fish preferred methods of cooking include poaching, steaming, microwaving, grilling, baking, or broiling. Frying, especially deep frying, appears to negate the cardiovascular benefit of fish consumption.

Although a 2003 analysis of commercially available fish oil capsules by Consumer Reports found no contamination with heavy metals, purity remains a concern, and those considering the use of fish oil supplements should first discuss the issue with their personal physician. If after such a discussion fish oil supplements are considered, it is strongly advised to use only fish oil supplements proven to be free of heavy metals by independent laboratory testing. Additionally, fish oil concentrate should come from the body flesh of the fish. Oil from other organs such as the liver should be avoided as a source of EPA and DHA.

While omega-3 fish oil which has been tested by independent labs and proven to be uncontaminated is available, fish tested and proven free from contamination is not yet widely available. Fish have been shown to be contaminated with heavy metals as well as polychlorinated biphenyls (PCB). In general, larger fish concentrate heavy metals and other contaminants in their bodies much more than smaller fish swimming in the same water. Tuna, a large fish, contains mercury and should not be eaten more than once or twice a week. Women who are pregnant or who are attempting to become pregnant should refrain from the consumption of tuna completely.

Farm raised fish, which should be free from contamination, are unfortunately many times tainted by contaminants supplied in the fish feed. Consumers are encouraged to consume farm raised fish proven free of contamination by independent lab testing. Otherwise, it may be better to consume wild fish. For seasonal fish such as salmon, this may require those who wish to consume salmon year round to eat frozen or canned fish when wild is unavailable.

In summary, eating fish on a regular basis may be one of the single most heart healthy dietary practices one may make. Consuming fish has been shown in clinical trials to reduce the risk of death, cardiovascular death and sudden cardiac death. As a consequence, fish consumption should be viewed as a pleasurable alternative to the proverbial bottle of pills to reduce one of our most significant health risks.

**Paul E. Lemanski, MD, MS, FACP** is a board certified internist with a master's degree in human nutrition. He is director of the Center for Preventive Medicine, Albany Associates in Cardiology, Prime Care Physicians, P.C.

*Dr. Lemanski is an assistant clinical professor of medicine at Albany Medical College and a fellow of the American College of Physicians.*