

Nutritional Power of SUNFLOWER OIL

VOLUME 3.2

Study Shows NuSun™ Sunflower Oil Protects Against Cardiovascular Disease

For the first time in the history of Dietary Guidelines, the federal government has recommended that trans fats be virtually eliminated from our diets. NuSun™ sunflower oil provides food service and food manufacturers with a healthful, functional oil that is trans-fat free and low in saturated fat—the other “bad” fat. Research from Penn State University proves that including just two tablespoons of NuSun™ sunflower oil in the diet each day can protect the heart by lowering cholesterol levels. (1)

Clinical Study Shows Health Benefits of NuSun™ Sunflower Oil

For the first time, a controlled clinical study shows the heart-health benefits of using NuSun™ sunflower oil. The study included thirty-one men and women with slightly elevated cholesterol. Researchers evaluated the outcomes of healthful diets with either NuSun™ or olive oil compared to the average American diet. The NuSun™ sunflower oil and olive oil diets were moderate in total fat (30%), low in saturated fat (about 8%), and low in cholesterol (less than 300 mg). The average American diet contained 34% total fat, 11.2 % saturated fat, and 300 mg cholesterol. Each participant followed each of the three diets for four weeks.

NuSun™ sunflower oil was incorporated into the test diets in granola bars, sandwich spreads, and as a cooking oil. These real-world applications gave researchers a snapshot of how replacing saturated fats (found in the average American diet) with healthier unsaturated fats (mono- and

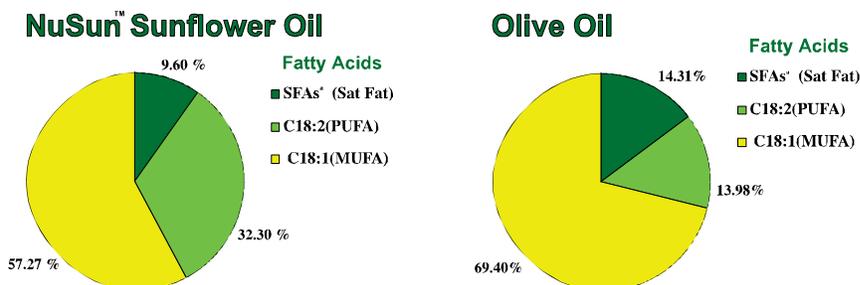
polyunsaturated fats from the NuSun™) affects cholesterol levels.

The study showed that individuals experienced a significant total and low-density lipoprotein (LDL) cholesterol lowering on the NuSun™ sunflower oil diet compared to the average American diet, but did not experience significant cholesterol lowering on the olive oil diet. (1) Compared to the average American diet, total cholesterol was reduced by 4.7% and LDL cholesterol was reduced by 5.8% following the NuSun™ sunflower oil

diet. The authors of the paper go on to say that the cholesterol lowering observed on the NuSun™ oil diet was greater than what could be predicted by tested scientific equations.

Researchers think it is the balance of fatty acids in NuSun™ that provides the benefit. NuSun™ sunflower oil contains both mono- and polyunsaturated fats. NuSun™ is also lower in saturated fat than olive oil (9.6% versus 14.3%) and contains zero grams trans fat by FDA (Food and Drug Administration) definition.

Fatty Acid Profile of NuSun™ Sunflower Oil vs. Olive Oil



Substituting two tablespoons of NuSun™ sunflower oil daily in place of saturated fat had a significantly better cholesterol-lowering effect than substituting a similar amount of olive oil. Researchers think it is the balance of mono- and polyunsaturated fatty acids, and the lower saturated fat content of NuSun™ that provide the benefit.

Government Policy Shifting in Light of New Research on Dietary Fat

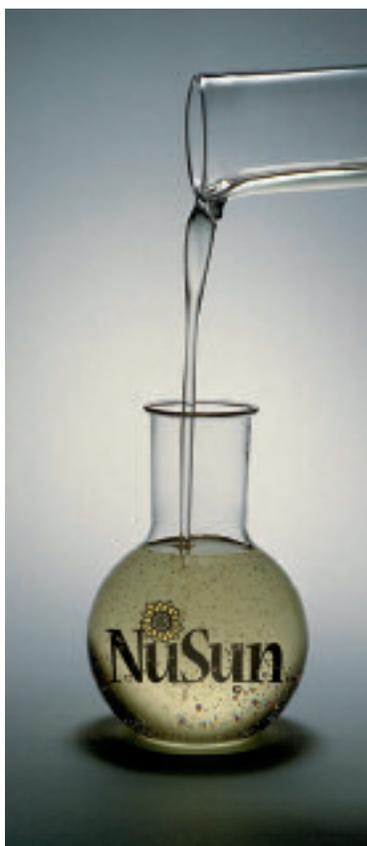
Although the Food and Drug Administration will not require trans fat labeling on packaged foods until January 1, 2006, some major food manufacturers have already switched to trans-free oils, including NuSun™ sunflower oil, and several other food companies throughout North America are also planning to make the change in the near future. The result is a product that can be labeled “0 grams trans fat” without an increase in saturated fat.

The 2005 U.S. Dietary Guidelines recommend that consumers keep trans fats as low as possible and keep saturated fat to less than 10% of calories, but they also emphasize the importance of good, unsaturated fats for health. (2) A large body of scientific research shows that including a higher proportion of unsaturated fat and less saturated and trans fat in the diet can lower risk of chronic diseases. According to Harvard School of Public Health researchers, “Evidence is now clear that diets including non-hydrogenated unsaturated fats as the predominant form of dietary fat...can offer significant protection against coronary heart disease.” (3)

According to data from the Nurses’ Health Study, Harvard School of Public Health researchers estimate that replacing 5 percent of calories from saturated fat with calories from trans-free, unsaturated oil would reduce the risk of heart disease by 42 percent. (4) Replacing 2 percent of calories from trans fats with calories from trans-free, unsaturated oils would reduce the risk of heart disease by 53 percent. (5)

NuSun™ sunflower oil is available now and can help food service and food manufacturers improve the nutritional profile of their products.

NuSun™ sunflower oil is available now and can help food service and food manufacturers improve the nutritional profile of their products. Using NuSun™ reduces both trans and saturated fats in food products while providing healthy mono- and polyunsaturated fats. Healthier products can in turn improve the health of consumers.



NuSun™ sunflower oil was created through standard breeding techniques with no use of genetic modification. The fatty acids in NuSun™ sunflower oil provide the industrial cooking capabilities needed to produce tasty, high-quality food products, without partial hydrogenation, which adds harmful trans fat. Because of its natural stability, NuSun™ oil performs extremely well in commercial cooking and frying, with a smoke point of 450°, a clean light taste, and excellent shelf-life characteristics—all of the necessary characteristics for today’s manufacturers and consumers alike.

References:

1. *Dietary Guidelines for Americans 2005.* U.S. Department of Health and Human Services and U.S. Department of Agriculture. **HYPERLINK** "<http://www.healthierus.gov/dietary>" www.healthierus.gov/dietaryguidelines
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For more information on NuSun™ sunflower oil or sunflower seeds, contact:



4023 State Street • Bismarck, ND 58503 • 701-328-5100 • FAX: 701-328-5101
www.sunflowerusa.com