



STUDY

New Study Finds Corn Oil Superior to Extra Virgin Olive Oil in Lowering Cholesterol

New research shows Mazola® Corn Oil significantly reduces cholesterol with more favorable changes in total cholesterol and LDL or “bad” cholesterol than extra virgin olive oil. Corn oil lowered LDL cholesterol by 10.9 percent compared to extra virgin olive oil’s 3.5 percent reduction,^{1,2} and total cholesterol decreased by 8.2 percent with corn oil compared to 1.8 percent for extra virgin olive oil.² The findings were presented on December 5, 2013 at the American Society for Nutrition’s Advances & Controversies in Clinical Nutrition Conference.

The new study followed 54 healthy men and women, 18-74 years of age, for 63 days. Each participant received four tablespoons of corn oil or extra virgin olive oil in the foods provided every day, consistent with the Dietary Guidelines for Americans recommendation. All foods were provided to the study participants as part of a weight maintenance diet.

The randomized, double-blind, controlled crossover clinical trial assessed the effects of dietary oils on fasting lipoprotein lipids. The study compared the effects of corn and extra virgin olive oil on LDL cholesterol (primary outcome variable), total cholesterol, HDL or “good” cholesterol, Non-HDL cholesterol, Triglycerides and the total to HDL cholesterol ratio. Study participants had fasting LDL cholesterol ≥ 130 mg/dL and < 200 mg/dL. Fasting blood samples, along with other clinical measurements, were taken from all participants during visits to the clinical study center before and after each treatment phase of the study.

Existing research supported the notion that diets with at least five to ten percent of calories from polyunsaturated fatty acids (PUFAs) from vegetable oils are associated with lower risk for heart disease.³ It was also known that corn oil has a high quantity of naturally existing plant sterols, (four times more than olive oil and 40 percent more than canola oil).⁴ Clinical studies indicate that when consumed as part of a diet low in saturated fat and cholesterol, plant sterols can help reduce the absorption of cholesterol in the gut. With this supporting research, the study was designed to compare corn oil and extra virgin olive oil’s ability to lower cholesterol.

ACH Food Companies, Inc. partly funded the third party feeding study on the effects of corn oil and extra virgin olive oil on LDL (“bad”) and total cholesterol. The study was conducted by Biofortis, the clinical research arm of Mérieux NutriSciences and led by researcher Dr. Kevin C. Maki, PhD.

1. Maki KC, Lawless AL, Kelley KM, Kaden VN, Dicklin MR. Benefits of corn oil compared to extra-virgin olive oil consumption on the plasma lipid profile in men and women with elevated cholesterol: results from a controlled feeding trial. Poster session presented at: American Society for Nutrition’s Advances & Controversies in Clinical Nutrition Conference; 2013 Dec 5-7; Washington, D.C.

2. Baseline mean (standard error) lipid values in mg/dL were: LDL-C 153.3 (3.5), total-C 225.7 (3.9), non-high-density lipoprotein (HDL)-C 178.3 (3.7), HDL-C 47.4 (1.7), total-C/HDL-C 5.0 (0.2), and triglycerides 124.8 (7.2).

3. Howell TJ, MacDougall DE, Jones PJH. Phytosterols partially explain differences in cholesterol metabolism caused by corn or olive oil feeding. *J Lipid Res.* 1998 Apr;39(4):892-900.

4. Based on analysis of corn oil and 2013 USDA comparison of other cooking oils: Corn Oil has plant sterols content of 135.6 mg/serving vs. 30.0 mg/serving for Olive Oil, 40.8 mg/serving for Vegetable Oil, and 93.9 mg/serving for Canola Oil.