SOUTHWESTERN NEWS

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**HEALTH-FOOD STORE PRODUCT, MCT OIL, RAISES CHOLESTEROL
UT SOUTHWESTERN RESEARCHERS FIND**

DALLAS – Jan. 2, 1996 – A study by nutrition researchers at UT Southwestern Medical Center at Dallas shows that MCT oil – commonly sold in health-food stores as an alternative to olive or canola oil – raises bad cholesterol levels as much as palm oil.

The finding contradicts the long-held belief that oil derived from saturated fatty acids of shorter molecular chains do not raise low-density lipoprotein (LDL) cholesterol, the so-called "bad" cholesterol.

MCT stands for medium-chain triglycerides, a description of the length of the carbon chain of the fatty acids that comprises the oil.

MCT oil is used by some athletes as an energy booster because it is quickly absorbed into the liver, which was thought to mean it would not raise LDL levels.

A randomized, crossover study under strict dietary controls unexpectedly found, however, that MCT oil does raise LDL cholesterol and total cholesterol. The results suggest that the body somehow converts medium-chain fatty acids into cholesterol-raising fatty acids. The work was published in the January issue of *American Journal of Clinical Nutrition,* by Dr. Nilo Cater, a nutrition scholar in the Center for Human Nutrition; Dr. Howard J. Heller, assistant professor of internal medicine; and Dr. Margo Denke, associate professor of internal medicine.

"Medium-chain fatty acids appear to elevate cholesterol by promoting the synthesis of cholesterol-raising long-chain fatty acids, particularly palmitic acid," said Cater.

"Since MCT oil contains almost exclusively medium-chain fatty acids, these results

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indicate that, contrary to widely held beliefs, medium-chain fatty acids raise total and LDL cholesterol," he said.

The triglyceride levels of the participants also were higher on the diet containing MCT oil.

The study compared the effects of diets enriched with MCT, palm oil and high oleic sunflower oil in nine middle-aged men with mildly elevated cholesterol. Palm oil is known to raise LDL cholesterol; high oleic sunflower oil is known to have a neutral effect on it. Both are composed of long-chain fatty acids.

During the study, the men's daily diets consisted of low-fat natural foods and the oils, which were added to soups, cereals, breads or vegetables. All food was provided and consumed in the carefully controlled setting of a metabolic ward at the Dallas Veterans Affairs Medical Center. Each phase lasted three weeks to ensure lipid levels reached a steady state. Each patient followed each diet, thus acting as his own control.

To date, stearic acid, found in beef and cocoa butter, is the only saturated fatty acid that has been shown to have a neutral effect on cholesterol. This discovery also was made at UT Southwestern.

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