

Unusual fats lose heart-friendly image

Hoping to find tasty alternatives to the cholesterol-elevating saturated fats in meats and butter, health-conscious diners have been scrutinizing food labels in search of products containing fats that are easier on the heart. A new study has just made that hunt harder by seriously tarnishing the image of two prospects.

The study focused on data from men with atherosclerosis who took part in a 3-year dietary trial at St. Thomas' Hospital in London. Researchers at the University of London advised some of the men to cut their consumption of fats, especially saturated fats, and offered other nutrition guidance. Other men were prescribed a specific diet to benefit the heart and were offered free foods to encourage them to adhere to the diet. A third group received both the diet and a cholesterol-lowering drug.

Measurements of the interior diameter of each man's coronary arteries showed that the less fat he had eaten, especially saturated fat, the less rapidly his arteries had accumulated vessel-clogging plaque. The cholesterol-lowering drug slowed progression of the disease further. However, the fats' role in artery narrowing appeared to be independent of their effect on cholesterol concentrations in the blood, observes Gerald F. Watts, a study author now at the University of Western Australia in Perth.

To pinpoint which foods proved most deleterious, Watts' team reanalyzed dietary surveys from the 50 men who had not received the cholesterol-lowering drug. In the August *AMERICAN JOURNAL OF CLINICAL NUTRITION*, they report that eating lamb and dairy products correlated most strongly with worsening disease.

Further dietary analysis showed that the amount of two types of fats consumed, both characterized by carbon chains 18 atoms long, appeared to be the best predictor of how the disease would progress. Stearic acid, found in meats and cocoa butter, is unique among saturated fats for its inability to raise cholesterol in the blood. The remaining suspects are *trans* fatty acids, common in margarines, shortening, and animal products. *Trans* fats mimic saturated fats by remaining solid at room temperature.

Each of these findings has surprised some nutritionists.

"I think the big story here is the stearic acid," says Watts, "because in the States, the big names in nutrition claim that stearic is good for you."

Indeed, notes Thomas A. Pearson of the Mary Imogene Bassett Research Institute in Cooperstown, N.Y., who edited a monograph on stearic acid, "we generally felt that it differed from the other saturated fats in that it lacked deleterious effects" because it doesn't raise blood cholesterol concentrations. Acknowledging that animal tests had hinted it might promote blood clots—thus presenting a risk of stroke or heart attack—he said there was little evidence of this effect in human trials.

Against this backdrop, Pearson says, "the new report is worrisome." However, while the study "might be good for generating hypotheses," he finds its design doesn't support a conclusion that stearic acid causes heart disease.

William E. Connor of the Oregon Health Sciences University in Portland disagrees. Having performed some of the early animal studies on stearic acid and blood clots, he told Science News that "I was always inclined to view stearic acid as not benign. This study now confirms that."

For Meir J. Stampfer of the Harvard School of Public Health in Boston, the most interesting findings involve the *trans* fats. While earlier studies had shown that at least some of these increase coronary risk factors, there was some indication that the 18-carbon *trans*-oleic variety might be benign (*SN*: 2/25/95, p. 127). This study, he argues, now "shows in a highly selected, carefully studied group that [these fats] contribute to the progression of coronary disease."

— J. Raloff