

Nutrition News

Department of Human Nutrition



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Brief Update on Trans Fats

In the July '08 issue of *Nutrition News*, "More Bad News about Trans Fats" (http://www.oznet.ksu.edu/humannutrition/nutritionnews/More_Bad_News_about_Trans_Fats.htm), we noted that trans fats created through the industrial process of partial hydrogenation of oils tend to increase LDL cholesterol while decreasing HDL cholesterol. Both conditions, increasing LDLs and decreasing HDLs, are known to raise the risk for cardiovascular disease and possibly other chronic diseases. On the other hand, CLA, or conjugated linoleic acid, a "natural" trans fat found in meat, milk, butter and eggs, seemed to have escaped this indictment. In fact, some studies have shown beneficial properties of CLA supplements in the area of weight management and even anticancer properties. Yet others have found an increase in adverse effects such as an increase in C-reactive protein levels (a marker of inflammation that may lead to

heart disease or insulin resistance). Additional studies are now underway to understand the physiological impact of the different forms of trans fats.

Researchers from the VU University of Amsterdam reported at the 2008 American Heart Association Meeting that it is not only partially hydrogenated oils that are problematic; natural trans fats such as CLA also contribute to the risk of coronary heart disease when ingested in *high* amounts. Dr. Ingeborg Brouwer and colleagues conducted a nine-week crossover study comparing the lipid profiles of subjects consuming 18.9g/day of either CLA partially hydrogenated trans fats or a cholesterol-neutral oleic acid (a primary fatty acid found in olive oil as well as animal sources). Results revealed that both types of trans fats—those created through partial hydrogenation as well as CLA from natural sources—raised the LDLs of the human test

subjects when compared to oleic acid's effects. The HDL, or good cholesterol, was lowered by both types of trans fats. Last, the subjects' triglycerides were increased slightly by both types of trans fats when compared with oleic acid.

What do these findings mean for us?

First of all, natural trans fats occur typically at a much lower concentration than in processed foods. Second, consumers who are following the recommendations of the *2005 Dietary Guidelines for Americans* need not be unduly concerned as these guidelines already call for reducing the amount of fat, including trans fats, in our diets by choosing:

- lean meats and poultry low in saturated fats, trans fats, cholesterol and
- low-fat or fat-free milk—or an equivalent amount of low-fat yogurt and/or low-fat cheese—every day.

There will be many more

studies on the health impact of trans fats. While we wait for the results, it is reassuring to know that a low fat choice is almost always the healthiest choice.

Sources: Wanders. A., et al “Very High Intakes of Conjugated Linoleic Acid, a Trans Fat from Milk and Meat, Raises LDL and Lower HDL Cholesterol in Humans” AHA Meeting 2008.

For more information about healthy eating, contact your local extension office.

The Food Assistance Program can help people of all ages with low income buy nutritious foods for a better diet.

To find out more, call toll-free 1-888-369-4777.

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