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### What Are Trans Fats and What Do They Do?

It wasn't long ago that the only fats we knew about were saturated fats and unsaturated (monounsaturated and polyunsaturated) fats. Now trans fats has entered the picture.

We've known for a long time that the monounsaturated and polyunsaturated fats were the good guys. Although they had calories, they helped lower the LDL cholesterol level and increase the HDL cholesterol level. Neither causes the body to produce more cholesterol. That's good.

The HDL's and LDL's can be confusing. We want high levels of HDL (High Density Lipoproteins) since they help keep the arteries free of a buildup of cholesterol, and low levels of LDL (Low Density Lipoproteins) because they clog the arteries. The monounsaturated fats are the best of the two unsaturated fats. They include olive oil, canola oil and peanut oil. They lower the LDL and raise the HDL levels. The polyunsaturated fats like corn oil, safflower, sunflower oil, and the fat in seafood, and nuts lowers the LDL but may reduce the HDL level.

Saturated fats are those that are solid at room temperature. They do cause the body to produce more cholesterol and raise the LDL level and lower the HDL level. They come from animal fats, whole-fat dairy foods and coconut, palm and palm kernel oils. They're the bad guys. Removing visible fat from cuts of meat, cooking using methods that don't add fat, and using low fat and no fat dairy foods are important steps in reducing cholesterol levels.

Where did the Trans fats come from? They are made when they pump hydrogen into liquid vegetable oils to make it solid - this produces vegetable shortening or stick margarine. Hydrogenation was originally done to make the oils more stable, and vegetable oils were less expensive than butter. Foods made with large amounts of vegetable shortening or stick margarine have been found to contain trans fats which raise the cholesterol level, raise the LDL level and lower the HDL level even more than saturated fats. That's really bad!

The Food and Drug Administration has adopted rules that the trans fat content will have to be included on the nutrition label on processed food. The problem is the rule doesn't go into effect until January 1, 2006. Some companies are already putting it on the label.

How do we tell if foods have trans fats if it's not listed on the label? The answer is to look at the list of ingredients. The ingredients are listed by volume. Whatever there's the most of is listed first and the smallest ingredient is listed last. If hydrogenated vegetable oils or partially hydrogenated vegetable oils is listed in the first part of the list of ingredients, that food contains a lot of trans fats.

Since stick margarine is one of the sources of trans fats it's a good idea to use the softer tub margarine and low fat tub margarine as much as possible. Soft margarine is not as hydrogenated as stick margarine. The only problem is you can't substitute the soft margarine for stick margarine or butter in baking recipes and expect to have the same product. The soft margarines have air and/or water whipped into them and have a lower fat content and that makes a difference. One resource said to use one third more of the whipped margarine than the recipe calls for stick margarine when substituting whipped margarine for stick margarine. You can substitute applesauce for one half the fat in baked good to decrease the fat content. Nonstick cooking spray can be substituted for other fats when "greasing" a pan.

Benecol and Take Control margarines have been on the market for about a year. They have plant sterols and stanols with the canola oil. This forms sterol and stanol esters, ingredients that studies show can help lower blood LDL cholesterol without affecting HDL cholesterol levels.

Is it better to eat butter instead of margarine to avoid trans fat? No, according to the Food and Drug Administration. The combined amount of saturated fat and trans fat (the cholesterol-raising fats) and cholesterol in butter is usually higher than margarine, even though some margarine contains more trans fats than butter. One source said butter had 7.5 grams of saturated and trans fats per tablespoon while stick margarine had 5.0 grams of saturated fat and trans fat.

Once again we must be vigilant with reading food labels and our food manufacturers will once again be faced with the need to make changes in their food production to make our food healthier. They took out most of the coconut, palm kernel and palm oil from crackers and cookies and now will need to find healthier substitutes for hydrogenated and partially hydrogenated shortenings in their products. Life is a learning process, there's always something new to learn.