

Fat Facts: Trans Fats and Saturated Fats Are Not the Same

By Mary G. Enig, PhD

The dangers of trans fatty acids in the food supply have been the subject of several recent articles in the major newspapers. Unfortunately, these articles are filled with misinformation, particularly regarding the role of saturated fats in the human diet.

For example, Rekha Balu, writing for the Wall Street Journal states that trans fats are like saturated fats “which raise bad cholesterol, causing a buildup of fatty deposits in the arteries.”(1) Lynn Roblin, writing for the Toronto Star, advises consumers to avoid trans fats by consuming more vegetable oils, such as olive oil and canola oil, in preference to butter and coconut oil.(2) Harvard nutritionist Frank Hu, featured in an article for the Washington Post, says butter is better than stick margarine, but tub or liquid margarine made from commercial vegetable oils is “a more healthful choice than butter.”(3)

Trans fatty acids have similar properties to saturated fatty acids when used in baked goods, but the assertion that trans fatty acids are like saturated fatty acid is not correct in biological systems. A listing of the biological effects of saturated fatty acids in the diet versus the biological effects of trans fatty acids in the diet is in actuality a listing of the good (saturated) versus the not-so-good (trans).

Note that: (1) saturated fatty acids raise HDL, the so-called good cholesterol, whereas the trans fatty acids lower HDL cholesterol; (2) saturated fatty acids lower the blood levels of the atherogenic lipoprotein (a), whereas trans fatty acids raise the blood levels of Lp(a); (3) saturated fatty acids conserve the good omega-3 fatty acids whereas trans fatty acids cause the tissues to lose the good omega-3 fatty acids; (4) saturated fatty acids do not inhibit insulin binding whereas trans fatty acids do inhibit insulin binding; (5) saturated fatty acids are

the normal fatty acids made by the body and they do not interfere with enzyme functions such as the delta-6-desaturase, whereas trans fatty acids are not made by the body and they interfere with many enzyme functions such as delta-6-desaturase; (6) some saturated fatty acids are used by the body to fight viruses, bacteria and protozoa and they support the immune system whereas trans fatty acids interfere with the function of the immune system; (7) stearic acid, a naturally saturated fatty acid, is the preferred food for the heart whereas trans fatty acids replace these saturated fatty acids in the cell membrane, thus depriving the heart of its optimum energy source; (8) saturated fatty acids are needed for proper modeling of calcium in the bones whereas trans fatty acids cause softening of the bones; and (9) saturated fatty acids from animal sources are carriers for vital fat-soluble vitamins whereas factory-produced trans fatty acids are devoid of these important nutrients.

We should take every precaution to exclude trans fatty acids from the diet. But when we exclude saturated fats from our diets as well, the calories are replaced by other calories in the form of polyunsaturated fatty acids from commercial vegetable oils, monounsaturated fatty acids from olive oil or canola oil, protein or carbohydrates. Excess polyunsaturates have been shown to contribute to heart disease, cancer, weight gain and many other health problems. Excess oleic acid can contribute to prostaglandin imbalance and weight gain, while canola oil causes vitamin E deficiency and other problems. Excess protein leads to deficiencies in the fat soluble vitamins, can be a strain on the kidneys and will be turned into fats if protein intake exceeds requirements. Excess carbohydrates are also turned into fats! So any foods in excess will be turned into fats, but none except the animal fats carries the fat-soluble nutrients so important for overall good health.

The food manufacturers will not willingly return to using naturally saturated fats such as coconut oil, palm oil, butter, tallow and lard because they are more

expensive. Only a concerted demand by educated consumers will bring healthy traditional fats back into the American food supply.

PPNF recommended book: *Know Your Fats*

By Mary G. Enig, Ph.D.

The complete Primer for Understanding the Nutrition of Fats, Oils, and Cholesterol.

To learn more: [CLICK HERE:](#)

References

1. Rekha Balu, "Trans Fat: Taste Buds Cry 'Yes!' but Arteries Demur," The Wall Street Journal, June 8, 1998
2. Lynn Roblin, "Not all fats are created equal," The Toronto Star Health Talk, June 24, 1998
3. Fred Tasker, "A Churning Controversy," The Washington Post Health, June 2, 1997

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