

TRANS-FATTY ACIDS

Found in hydrogenated and partially-hydrogenated fats

IMPORTANT POINTS:

- Research is being reported on adverse effects of trans-fatty acids related to heart disease, diabetes, cancer, low birth weight, obesity and immune dysfunction.
- Although research clearly shows no amount of trans-fats in the diet are considered safe, the FDA has given food manufacturers a large loop-hole in the new trans-fat labeling laws. **Trans-fat content of 0.5 (1/2 gram) grams or less per serving can be labeled as 0 trans-fats.** Therefore, any label with the words hydrogenated or partially hydrogenated contains trans-fats even when the label states 0 trans-fats.
- As early as 1958 researchers were claiming trans-fats were culprits in heart disease. The edible oil industry successfully squelched that information, and at the same time, shifted the blame to saturated fats where it has since erroneously remained.

SOME OF THESE ADVERSE AFFECTS REPORTED IN HUMAN AND ANIMALS ARE THE FOLLOWING: ^{1,2}

1. Damage to the functions of cell membranes, when trans-fats become part of membrane structure. (Cell membranes are responsible for transporting nutrients, hormones, etc. in, and waste products out. Cell membranes become “stupid” when made of trans-fats.)
2. Negatively affects fat-based steroid hormone balance and levels (female and male hormones, and adrenal hormones)
3. Increases insulin levels in the blood and contributes to Insulin Resistance
4. Decreases the response of the red blood cells to insulin and contributes to Insulin Resistance even more
5. Escalates the adverse effects of essential fatty acid (EFA) deficiency
6. Blocks the conversion of Omega 6 and Omega 3 EFAs into their elongated fatty acids and eicosanoids (cellular hormones)
7. Increases total cholesterol
8. Decreases HDLs and increases LDLs in a dose-dependent manner (The more trans-fats you eat, the more it disrupts your cholesterol balance.)
9. Raises the atherosclerosis-forming repair protein (lipoprotein [a]), whereas saturated fats lower this repair protein. (That means that trans-fats irritate the inner artery walls, and saturated fats protect them. This is just the opposite of the food industry propaganda.)
10. Lowers the volume of cream and the quality of breast milk
11. Correlates with low infant birth weight
12. Decrease visual acuity in infants in a dose-dependent manner when they are fed breast milk containing trans-fats
13. Precipitates childhood asthma
14. Weakens immunity
15. Causes adverse alterations in enzymes that metabolize carcinogens
16. Cause alteration (enlargement) of adipose cell size, cell number, lipid class and fatty acid composition. (Interferes with fats and fat metabolism in the body)

¹ Enig, Mary G., Ph.D., *Know Your Fats: The Complete Primer for Understanding the Nutrition of Fats, Oils and Cholesterol*, Bethesda Press, (2000) pp85-86

² DeMaria, Dr. Robert, DC, *Trans Fat Survival Guide*, Drugless Healthcare Solutions, 2005 or visit www.DrBob4Health.com