

ABSTRACT

"Industrial" trans fats are unnatural, commercially-produced fats whose monkeys who consumed unsaturated fats did double bonds have an orientation different from those of natural (cis) fats. The American Heart Association states that we should take not. (4) They contribute to poor cardiovascular health, the elevation of serum low in a maximum of 2 g of trans fat per day. Assuming that one density lipoprotein ("bad") cholesterol levels (particularly in women), Results of the Nurse's Health Study demonstrate consumes roughly 2000 calories/day, that is equivalent to infertility, weight gain, and stroke. Likewise, they lower high density that for every 2% elevation in the number of trans about 1% of his/her total daily caloric intake (9). However, it lipoprotein ("good") cholesterol levels, substantially increasing consumers' should be emphasized that some meats (beef, sheep, and fat calories (as opposed to. carbohydrate risk of developing coronary heart disease, One might hypothesize that many calories) a woman consumes, her risk of infertility goat) and dairy items (milk, butter, etc.) contain the kind of American food companies claim that the foods they produce are "trans fat shoots up by about 73%. (2) trans fats that occur in nature (vaccenic acid). Thus, most free" when in fact, they are not. Since trans fats provide no health benefits of us already consume our maximum 2 g of trans fat per but, at the same time, pose many health *risks*, there is no acceptable upper In a 2004 study, four pigs were divided into day before indulging in foods that contain unnatural, limit of or suggested daily value for trans fats. 0 g per day is the "ideal" particularly harmful trans fats (9). Until 2006, food groups. Over the course of two 14-day periods, amount. companies were not required to list information about trans the pigs in one group ingested foods containing hydrogenated soybean oil (trans fat) while the fat content on nutrition labels (5). Although the media has INTRODUCTION pigs in the other group ingested foods containing recently brought attention to the negative effects of trans coconut oil (saturated fat). The results of this fats, they are still present in many American foods. Instead research study confirmed that trans fat of eliminating industrial trans fats, the American food industry packages many popular snack and fast food items consumption raises LDL ("bad") cholesterol levels while lowering HDL ("good") cholesterol in a way that does not clearly indicate the presence of trans fats. Food companies are now allowed to label foods with levels -- even more so than saturated fat. (3) less than 0.5 g of trans fat per serving "Trans Fat free,"

Chemists create trans fats (artificial fatty acids with trans double bonds) by mixing hydrogen gas with vegetable oil. Industrial trans fats are illegal throughout Europe and were recently banned in restaurants throughout New York City, Philadelphia, San Francisco, Albany County of New York, and King Country of Washington (10). These trans fats became prevalent in Americanrationalizing that since we can "acceptably" consume up to made snack and fast food items in the 1960s, primarily because they served as 2 g of trans fat per day, < 0.5 g is not substantial enough to excellent food preservatives and enhancers of food texture, making crispy have a notable effect on consumers' health (6). Thus, if one foods (i.e. chips and French fries) crispier and creamy foods (i.e. cupcake serving of processed peanut butter is equal to two icing) creamier. Likewise, when awareness of the hazards of saturated fats tablespoons, and those two tablespoons contain not zero, became widespread, food companies became increasingly focused on lowering but 0.4 g of trans fat, then that peanut butter can and will the levels of saturated fat within the foods they produced. Thus, these food be labeled trans fat free. Furthermore, if one eats not two, companies replaced saturated fats with trans fats (8). but three tablespoons of peanut butter within a given sitting, then s/he will consume roughly 0.6 g of trans fat --

Since trans fats are useful to manufacturers in producing snack foods, but are over a quarter of his/her daily maximum! When I examined inflammatory biomarkers within the female body. ultimately nutritionally harmful, I hypothesize that trans fat content is often not the nutrition facts labels of various, popular brands of clearly or accurately labeled on many packaged food items in the U.S. peanut butter labeled, "0g of Trans Fat Per Serving" (including Peter Pan, Jif, and Skippy) all contained hydrogenated vegetable oil -- an ingredient synonymous with trans fat.



Table 3 - Examples of other packaged foods whose nutrition facts labels boast 0g of Trans Fat/Serving, yet contain ingredients such as hydrogenated and/or partially hydrogenated vegetable oils:

*Pillsbury brownie batter (1 serving = 1/20 of a given package) *Ritz crackers (5 crackers/serving) -Dale and Thomas Popcorn Cinnamon Crème Drizzlecorn (1/2 cup/serving) -Hostess Cupcakes (1 cupcake/serving) -Lays Salt & Vinegar Potato Chips (1 oz/serving) -Post Fruity Pebbles Cereal (3/4 cup/serving)

Trans Fats: Content Not Clearly Labeled On Many Packaged Foods

METHODS

I sought evidence in support of my hypothesis in the peerreviewed, scientific literature and government websites that I examined. Likewise, I encountered documentation of multiple research studies that demonstrate the extent to which industrial trans fat consumption has an adverse effect on

human health.

RESULTS - Labeling

RESULTS - Health Effects

In a recent study, researchers fed 51 male monkeys a "calorie controlled" diet consisting of 35% total fat. Half the monkeys involved in this study consumed foods containing trans fats amounting to roughly 8% of their total daily caloric intake, while the other half consumed mostly unsaturated fats. The monkeys who consumed trans fats gained weight while the

In another recent study, 486 Tehrani women in apparently good basic physical condition filled out a survey based on the frequency of their ingestion of partially hydrogenated vegetable oils (trans fats) vs. non-hydrogenated vegetable oils (cis fats). Research conductors took blood samples, and found that there is, indeed, a detectable link between higher levels of trans fat consumption and higher concentrations of (1)

DISCUSSION

These results demonstrate that trans fats are hazardous, but difficult to detect in American food and drink products. Although they are banned in many places, we can still easily find trans fats in many snack and fast food items in the U.S.. It is important for us to examine the ingredient labels of those food items we consume in order to be certain that they do not contain shortening, hydrogenated vegetable oil, or partially hydrogenated vegetable oil, even if their labels claim that they are "Trans Fat Free," or "Contain No/0g of Trans Fat Per Serving."

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CONCLUSION

It is possible to remain more conscious of the presence of industrial trans fats in foods by reading not only nutrition facts, but also ingredient labels.

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Table 2 - Beware of these Ingredients:

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*Shortening *Hydrogenated vegetable oils *Partially hydrogenated vegetable oils

