

Trans Fats: Anatomy of a Scare, and Beth Whelan and Ruth Kava Testify for Science

By ACSH Staff — December 6, 2006

Yesterday morning, I watched as the New York City Health Department voted unanimously to ban the use of trans-fatty acids (trans fats) in all New York City restaurants. The ban will be phased in gradually, but ultimately New York City's eateries will be trans-fat-free.

This regulatory move appears to mark the first time a health agency has taken action against safe, legal foods -- in this case, certain margarines and cooking oils -- instead of disease-causing organisms. The regulatory demonization of trans fats and the underlying "trans-fat-phobia" reveal a good deal about how the media and consumers react to a health scare, how scientists respond (or do not), and what lies ahead for other food ingredients.

Most of the trans fats in our diet are derived from man-made partially hydrogenated vegetable oil (trans fats also occur naturally in beef, lamb, and dairy products). In recent years, trans fats have accounted for about 3-4 percent of our total calorie intake, but given the food industry's race to get trans fats out of many foods, the percentage of our total calories today that is trans fats is probably more like 1-2 percent.

Until the early 1990s, scientists generally believed that the impact of trans fats on cholesterol levels was minimal and that fats that contain trans fats were a desirable replacement for saturated fats such as beef tallow, which was widely used by fast food restaurants to make French fries. More recently, we have learned that trans fats can raise LDL, the so-called "bad cholesterol," as much or more than saturated fats do. At high levels of intake, trans fats may also reduce levels of HDL, the "good" cholesterol. On the basis of the projected impact of trans fat intake on cholesterol levels across the population, it has been estimated -- with considerable uncertainty -- that replacement of nearly all trans fats with unsaturated fatty acids could theoretically lead to three to six percent fewer heart attacks.

The reduction achievable is likely to be substantially lower in practice because unsaturated fatty acids cannot replace trans fats for texture or stability in some food production processes; in these instances, saturated fats are the only practical substitutes. Moreover, supply and cost considerations may limit the opportunities for reformulation of some products. Some trans fat opponents have estimated that up to 240,000 deaths from coronary heart disease might be prevented in the United States if we banned trans fats. The FDA has far more modest estimates -- and even those are probably high. Based on admittedly tentative information available before the labeling requirements went into effect, the FDA made two estimates of the potential decrease in coronary heart disease following reduced intake of trans fats.

On the assumption that benefits would result only from changes in LDL cholesterol levels, the FDA

estimated that the new rule would annually prevent 600 cases of coronary heart disease and 240 deaths nationwide; based on potential effects on both LDL and HDL, they estimated the prevention of 1,200 cases of heart disease and 480 deaths. Given that New York City has but 3% of the U.S. population, it is ludicrous to claim that banning the already low levels of trans fats in restaurant foods would have any measurable effects on heart disease in New York City.

As part of an overall effort to reduce risk factors for heart disease, physicians and scientists should be recommending that consumers stop smoking cigarettes (or better yet, not start), monitor their blood pressure, and limit consumption of both saturated fatty acids and trans fats by substituting polyunsaturated or monounsaturated fats whenever possible. For patients with high cholesterol, drugs called statins may well be the answer -- and where appropriate, physicians could even suggest that middle-aged and older patients regularly consume moderate amounts of alcohol, one to two drinks per day, to further reduce the risk of heart disease. Scare tactics, including claims that trans fats are a leading cause of heart disease and should be banned because "zero tolerance" for trans fats is the only acceptable standard are simply not justified by the scientific evidence.

How Trans Fats Are Being Characterized by a Handful of Scientists, "Consumer Advocates," and the Media

Given that trans fats are not inherently hazardous (whereas a pathogen like E. coli is, for example), some of the ways this food ingredient has been vilified are remarkable -- indeed, baffling:

--"President Bush's message to terrorists--'you can run but you cannot hide'--now has a corollary in the restaurant kitchens. Trans fats, you are on notice: you're a killer and time is running out." (Howard Cohen, Miami Herald, October 24, 2006)

--"New Yorkers are consuming a hazardous, artificial substance without their knowledge or consent." (Dr. Thomas Frieden, NYC Health Commissioner, New York Times, October 10, 2006)

--On the proposed ban on trans fats in NYC: "It would be like putting the whole population on a mild cholesterol-lowering statin. Probably nothing else you could do would have such a great impact on mortality." (Dr. Walter Willett, New York Times, October 10, 2006)

--Trans fats are "the most dangerous ingredient in our diet" (Dr. Dariush Mozaffarian, Harvard School of Public Health, in the Los Angeles Times, October 31, 2006)

--"Trans fats are poison in our food" and "Trans fats are trash." (Slogans at a rally outside the New York Department of Health hearings, October 30, featuring Harvard School of Public Health's Willett, Dr. Michael Jacobson, and others)

--"Federal and state agencies are hoping to regulate an industrial poison . . . produced by mixing certain liquid organic chemicals with industrial catalysts[.] . . . Like asbestos, these chemicals were once heralded for their copious beneficial properties[.] . . . We're talking about trans fats, created in laboratories, like a Frankenstein monster. . ." (Live Science's Health SciTech, Christopher Wanjek, October 10, 2006)

--"Trans fat has become box-office poison in the food world. It is the guest you really want to

leave." (Dr. Keith Ayoob, Albert Einstein College of Medicine, Los Angeles Times, October 31, 2006)

--"Trans fats kill babies!" (New York City Councilman Peter Vallone, October 30, 2006, New York City Health Department hearings)

--"Ring Dings have 2 grams [of trans fats], Denny's Carrot Cake has 3 grams . . . if this stuff was being sold by a terrorist nation, they would all be under arrest, we would be bombing them right now for killing us." (Howard Stern, May 23, 2006)

--Triscuits: the Crispy and Yummy Killers (DailyNexus.com, Volume 84, November 5, 2003)

--On selling Girl Scout Cookies with his daughter: "The problem is that most of those Girl Scout Cookies have trans fatty acids. Those are the worst kind of fat, killing far more Americans than Al Qaeda manages to." (New York Times columnist Nicholas Kristof, May 21, 2006)

4 Reasons Why Is There a Disconnect Between the Science and Public Perception of Trans Fats

First, food has always been a highly emotional issue. The old proverb "a lie can be halfway around the world before the truth gets its boots on" seems particularly appropriate here. Consumers frequently see food in a dichotomy, it is either a "good food" or a "bad food," a "health food" or a "junk food." This simplistic view obscures the more complex reality that the key to a healthy diet is balance, variety, and moderation -- not the exclusion of one or more specific ingredients or foods.

Second, there is no question that consumers have conflated two separate issues: trans fats and obesity. Contrary to some reports in the news media, the calorie content of trans fats is no higher than those of other fats. All types of fat are equally high in calories -- 9 calories per gram. But that has not stopped consumers from concluding that the obesity epidemic in America is so out of control that we should "do something. Banning trans fats would not actually make a dent in obesity, but it is made to sound like a remedy.

Third, trans-fat phobia is only one part of a broad ideologically-driven attack on the U.S. food industry as characterized in such books as *Fast Food Nation* and *Chew On This* by Eric Schlosser, and *Food Politics* and *What to Eat* by Marion Nestle.

Fourth, a primary reason that there has been so little balanced coverage of trans fats is that mainstream nutrition and public health specialists have largely recused themselves from the debate. One scientist, Harvard's Walter Willett, has dominated the discussion of trans fat and human health. Nearly every article written on the subject quotes Willett -- and few people have stepped forward to put his views in proper perspective, even though Dr. Willett has clearly crossed the line between independent scientist and political activist.

Witness his participation (along with members of the Center For Science in the Public Interest, which describes itself as the food police) at a 1960s-style rally that took place outside the New York City Health Department during the trans fat hearings in October. Why don't other mainstream scientists speak up and offer a more balanced perspective? Why are they mute when there is such a level of hysteria about trans fats when other, more important risk factors for coronary heart

disease are ignored?

Scientists generally feel more comfortable in their classrooms and laboratories. Unlike their counterparts in the world of nutrition activism, they would not actively seek media appearances and do not make themselves available for interviews. They do not want to get involved in what they perceive as a public policy issue. I have personally spoken to a number of the top researchers in the fields of cholesterol and coronary heart disease in recent weeks, and all are dumbfounded by the kerfuffle over trans fats -- yet very few wish to step forward and take on the activists.

One exception was the late Dr. David Kritchevsky, the esteemed Wistar Institute biochemist and cholesterol researcher who died last month. A *New York Times* obituary last week for Dr. Kritchevsky noted that he told the media that the call to banish trans fats was the "panic du jour." He suggested that the effort could lead to a wider use of saturated fats as a substitute, with no lessening of the health risks. Today, scientists are highly specialized. Thus, even those trained in public health, epidemiology, medicine, nutrition, or food technology will argue that "the topic of trans fats is outside my field" -- when it really is not.

There is also a general feeling that trans fats are not worth fighting for -- we can live without them, so let the activists have their way. Such an attitude, however, overlooks the precedent being set -- and allowing a "precautionary" attitude to win every time something is targeted as a potential risk fails to take into account the possible downside risks of whatever alternative might be put in place -- in this case, the possible increased use of highly saturated fats. Scientists are reluctant to speak out and protest politically correct but scientifically bereft views for fear of being publicly humiliated by charges of defending "industry" -- though actual food companies have been quick to cave on the trans fat issue.

As Yeats wrote in "The Second Coming," the best lack all conviction, while the worst are full of passionate intensity.

What Does the Ban on Trans Fat in New York Portend for the Future?

It is clear that a substantial number of public health professionals have concluded that government can and should intervene to combat chronic disease in the same manner government intervened to prevent infectious disease during the early part of the last century. Those earlier efforts succeeded: mandated vaccinations, chlorination of water, and related regulations did dramatically cut deaths from infectious disease.

Already, New York City set a precedent in January of this year by making diabetes a reportable disease -- as if it were syphilis or smallpox. Laboratories in New York are now required to send blood results on diabetics, with name, address, age, and other identifying information, to the Health Department. Thus, as if it were combating the plague, the City Health Department is now asserting its authority to attempt to prevent heart disease by regulation.

The problem here is that today's chronic diseases are highly associated with personal lifestyle factors -- cigarette-smoking, obesity, poor diets, alcohol abuse, and failure to use life-saving technologies like seatbelts and bike helmets. Interventions by the Health Department run head-on

into personal decisions and lifestyle choices. No one is arguing that chronic diseases -- including diabetes in New York City -- are not serious diseases and in some respects preventable (or postponable). But do we want the government to protect us from ourselves?

And even if we do accept "Mayor Bloomberg, M.D." as our government physician, will such interventions work?

If the New York City banning of trans fats as a means of preventing heart disease is any example, such interventions will not only threaten our individual freedom but, equally important, they will not work.

See [Dr. Whelan and Dr. Kava's testimony on trans fats](#) ^[1] to the New York City Department of Health.

This article first appeared on December 6, 2006 on [the website of](#) ^[2] [The American](#) ^[2].

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