

# Most Consumers Misinterpret Meaning of Trans-Fat Information on Nutrition Facts Panel, Study Shows

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Without an interpretive footnote or further information on recommended daily value, many consumers do not know how to interpret the meaning of trans-fat content on the Nutrition Facts panel, according to a new study by marketing researchers at the University of Arkansas.

In fact, without specific prior knowledge about trans fat and its negative health effects, consumers, including those at risk for heart disease, may misinterpret nutrient information provided on the panel, which is required by the U.S. Food and Drug Administration.

The researchers – Betsy Howlett, professor of marketing in the Sam M. Walton College of Business; Scot Burton, professor and Wal-Mart Chair in Marketing at the University of Arkansas; and John Kozup, assistant professor of marketing at Villanova University – said that the new Nutrition Facts panel won't have a positive influence on consumers unless marketers and policymakers make a significant effort to educate consumers about the effects of trans fat and what constitutes high levels. Their findings were published in the *Journal of Public Policy & Marketing*.

“We found that in the absence of general knowledge about trans fat, especially without a specific understanding that 4 grams of trans fat is high, even motivated consumers – that is, those who consult the

Nutrition Facts panel on food packages and want to know more about the food they eat – appear to misinterpret the meaning of trans-fat information,” said Howlett. “In other words, nutritionally motivated consumers lacking appropriate prior knowledge make inappropriate product judgments. This is a troubling, unintended consequence of the current trans-fat disclosure on the Nutrition Facts panel.”

The FDA mandated addition of trans-fat content to the Nutrition Facts panel, which became effective in January 2006. Trans-fatty acids – or trans fat, a nutrient found in many fried foods and baked goods – have no nutritional value. Medical research has shown that trans fat raises levels of low-density lipoprotein, otherwise known as “bad cholesterol,” which significantly increases the risk of heart disease. Adding trans fat to the nutrition panel was the first major modification since its inception in 1994.

In light of the change, Howlett, Burton and Kozup wanted to know if consumers benefit from knowing exactly how much trans fat a given food product contains. Specifically, the researchers examined how the provision of trans-fat information on the Nutrition Facts panel influences disease risk perceptions and purchase intentions among consumers at risk for heart disease.

Unlike other panel categories, such as cholesterol, total fat and especially saturated fat, trans fat does not have an accompanying percentage of recommended daily value. This appears to create a misunderstanding among most consumers, especially those who do not have prior knowledge of trans fat and the potential health risks associated with it. If consumers use other nutrient or daily-value percentage levels as reference points, Howlett said, the absolute level of trans fat may appear to be small.

For example, consider food items that have 4 grams of trans fat.

Compared to levels of fat and saturated fat found on the Nutrition Facts panel, this amount might appear low. With an absence of general knowledge about trans fat, the typical consumer might easily conclude that the item has a favorable level of trans fat. However, 4 grams of trans fat is high; it is approximately 70 percent of the total daily consumption for the average U.S. consumer.

The researchers conducted two studies. The first study asked whether supplemental information about the negative health effects associated with trans fat resulted in different knowledge levels among consumers. In this study, the researchers also wanted to know if consumer knowledge was low in the absence of general information about trans fat. The second study sought to replicate certain aspects of the first study but extend the research by examining the role of other individual differences, such as nutrition motivation, that may bear on a person's ability to obtain and process information.

Research participants were members of a nationwide Internet research panel. In the first study, participants ranged in age between 20 and 76 years. Fifty-eight percent were male, and 42 percent were female. All participants in this study were diagnosed diabetics. Participants of the second study had been diagnosed with various cardiac-related conditions. They ranged in age between 21 and 85 years. Sixty-nine percent of these participants were female; 31 percent were male.

According to participant responses on the first study, the researchers determined that in the absence of induced or interpretive knowledge about trans fat, participants did not associate higher trans-fat levels with different levels of nutrition or perceived cardiovascular risk.

“For a majority of consumers, basic information disclosure about this lesser-known nutrient has a relatively minor impact on product perceptions and evaluations, unless there is additional information

available to help them better understand trans-fat levels,” Burton said.

The second study explicitly considered consumers’ motivation to process nutrition information. As expected the researchers found that higher levels of both motivation and knowledge worked together to result in lower purchase intentions and greater disease-risk perceptions for products higher in trans fat. Motivation alone did not lead to healthful purchase intentions and favorable nutrition perceptions.

“When consumers were presented with a high trans-fat product, we found the highest purchase intentions and most favorable nutrition perceptions among consumers who were highly motivated to examine nutrition information but did not have additional information provided to them to help them interpret the trans-fat level correctly. Normally, such nutritionally motivated consumers make the best decisions from using the calorie and nutrient information found in the Nutrition Facts panel,” Burton said.

In both studies, claims such as “low in trans fat” or “zero trans fat” had a positive effect on nutrition perceptions. In the second study, such claims favorably influenced purchase intentions for more nutritionally motivated consumers.

“For motivated consumers, these claims can directly offer interpretable information that the product is low in trans fat, which influences intentions,” Howlett said. “In contrast, high levels of trans fat in the Nutrition Facts panel alone – without the percentage of daily value information or other clarifying information – were misinterpreted and led to a negative outcome.”

Source: University of Arkansas

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