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NUTRI-NEWS Q&A

Studies dispute concerns about certain additives

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Cinda Williams Chima
University of Akron

I'm concerned about an additive that is in practically every food you buy -- the food poison called carrageenan. It causes all kinds of stomach and gastro-intestinal problems.

Why haven't you addressed xanthan gum, the slime in foods that causes cancer?

The supermarket can be a risky place, but I think you're focusing your firepower on the wrong targets.

I'll start with xanthan gum, because there is less to say about it. Xanthan gum is a soluble fiber produced by fermenting corn sugar with the microorganism *Xanthomonas campestris*. It is commonly used as a thickening agent and to prevent crystal formation (as in ice cream). It's also found in soups, sauces, salad dressings, baking mixes and frozen desserts, as well as in products such as cosmetics, medicines and toothpaste.

Because it is considered a natural product, many natural foods manufacturers use it as an ingredient. It was cleared as a food additive in the United States in 1969, and was approved by the European Union in 1980.

Like other fibers, gums are not absorbed by the body. Gums as a class have not been extensively studied, but there appears to be no evidence they are harmful. In fact, they may play a positive role as a prebiotic, a fuel for beneficial bacteria in the gut. Xanthan gum is commonly sold in health food stores and is used to replace gluten in gluten-free recipes.

Frankly, I can't find anybody with a bad word to say about xanthan gum in the scientific literature. I can't even find any dire warnings when I Google it -- which is pretty amazing.

Carrageenan has been more closely scrutinized as a potential health hazard.

Food-grade carrageenan is a purified extract from tropical and cold-water red seaweeds. It is used as a thickener and stabilizer in a wide range of food products including frozen yogurt and reduced-fat ice cream, processed meats, puddings and salad dressings. It is also used in nonfood products such as shoe polish, toothpaste and air freshener gels.

Like xanthan gum, carrageenan is often used by natural foods companies because it is a naturally sourced ingredient with a long history of safe use in food products. Carrageenan is classified as GRAS (generally recognized as safe) by the U.S. Food and Drug Administration.

Unfavorable health effects (ulcerations and cancers of the GI tract) have been linked to poligeenan, a low molecular-weight, chemically degraded carrageenan derivative sometimes used in nonfood products. An article questioning the safety of carrageenan was published in 2001 by Joanne Tabacman, an internal medicine physician at the University of Iowa. She reviewed several studies in rats and human tissue samples and suggested that carrageenan may cause cancer and intestinal ulcers.

Finally, some of the recent hoopla about carrageenan may stem from a campaign by a man named

Robert Cohen (author of "Milk, the Deadly Poison.") Cohen markets home soy milk makers. Cohen has targeted White Wave, maker of best-selling Silk soy milk, which contains carrageenan. (Cohen has also accused White Wave of promoting child slavery, among other things.)

Subsequently, an expert review of the scientific evidence regarding the possible role of carrageenan in causing GI cancers and ulcerations concluded that "in-long term bioassays, carrageenan has not been found to be carcinogenic, and there is no credible evidence supporting a carcinogenic effect or a tumor-promoting effect on the colon in rodents." This report was used by the Joint FAO/WHO Expert Committee on Food Additives in their re-approval of carrageenan in 2002. In 2003, the European Commission agreed that intakes of carrageenan and processed Eucheuma seaweed from their use as food additives were of no concern.

Cinda Williams Chima is a registered dietitian on the faculty of University of Akron. Her column runs on alternating weeks in Taste. E-mail nutrition and weight-control questions, labeled "Nutri-News," to food@plaind.com

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