What is Carrageenan?

The Carrageenan Controversy – Is it safe?

As an avid label reader, I am always on the lookout for unfamiliar, unpronounceable, and otherwise suspicious sounding ingredients in my food. Unfortunately, in today's world of pre-packaged, highly-processed food, it is often difficult to distinguish the harmful from the benign. Even the savviest of consumers can be fooled, as I've learned recently. Apparently, I have been consuming a dangerous food additive in my "health" food for years: carrageenan.

Carrageenan, which is extracted from red seaweed, is a common ingredient in both organic and conventional food products. It is used as a thickener and emulsifier to improve the texture of dairy products, dairy replacement products like soy milk and almond milk, and personal care products like toothpaste.

In April 2012, University of Illinois medical researcher, Joanne Tobacman, testified before the National Organic Standard Board about the harmful effects of carrageenan. Over the years, Tobacman published 18 peer-reviewed studies linking carrageenan to increased inflammation, gastrointestinal issues, and cancer. Specifically, Tobacman found that mice consuming carrageenan were more likely to develop glucose intolerance, gastrointestinal ulcerations, and even gastrointestinal malignancies.

In her testimony, Tobacman claimed that carrageenan has been used by drug researchers for the specific purpose of producing inflammation in mice for anti-inflammatory drug studies. As most people are now well-aware, the medical community considers inflammation a contributing factor in serious health

problems like autoimmune diseases and cancer. Despite Tobacman's testimony, carrageenan remains on the National Organic Standard Board's list of approved ingredients.

In 2008, Tobacman submitted a petition to the Food and Drug Administration which cited more than a decade of her research on the harmful effects of carrageenan and requested that carrageenan be banned as a food additive for human consumption. Last year, four years after the petition had been submitted, the FDA denied Tobacman's request.

Organizations like the Cornucopia Institute have also expressed concern about carrageenan and have worked to get it banned by the Food and Drug Administration. In March of this year, the Cornucopia Institute formally requested that the FDA reconsider its decision regarding carrageenan. In its letter, the Cornucopia Institute claimed that the FDA's denial was "based on an incomplete review of the scientific literature" and that every argument made by the FDA "can be refuted based on strong scientific evidence."

Much of the FDA's argument against banning carrageenan relies on the distinction between degraded and undegraded carrageenan, which differ, based upon molecular weight. Degraded forms of carrageenan, which are not used in food, have long been deemed unfit for human consumption. In the 1960s, degraded carrageenan was determined to cause gastrointestinal inflammation, and in 1983 the WHO's International Agency for Research on Cancer listed it as a "possible human carcinogen."

Undegraded, or food-grade, carrageenan was considered safe for human consumption. Concerns have been raised, however, in regards to the unclear relationship between undegraded and degraded carrageenan. According to the Cornucopia Institute's published report about carrageenan, data from the carrageenan industry in 2005 showed that degraded carrageenan was found in all samples of food-grade carrageenan. The report also cites

research indicating that when food-grade carrageenan is broken down for digestion it turns into degraded carrageenan.

With the FDA and National Organic Standard Board refusing to take official action on the issue, health-conscious consumers are left to fend for themselves. To help consumers avoid carrageenan, the Cornucopia Institute has created a buying guide which lists popular organic products that contain carrageenan (Cornucopia) and a partial list of conventional foods that contain it.

Based upon the list, the main carrageenan culprits are dairy products, dairy alternative products, nutritional drinks, and lunch meats. If attempting to avoid carrageenan, however, it is probably safest to check labels on all processed foods. According to Joanne Tobacman, carrageenan is also found in most condensed milk; so any product containing condensed milk might also contain carrageenan, even if it is not explicitly stated on the label.

As awareness about the dangers of carrageenan grows, the once seemingly harmless seaweed by-product is joining the ranks of high-fructose corn syrup, aspartame, red-40, MSG and other food additives that have become dirty words to health-conscious consumers. The carrageenan controversy provides just one more solid reason to avoid processed foods (even organic ones) and to stick to real, whole foods.

Recommended Reading:

- *Food Emulsifiers Linked to Gastrointestinal Disease*
- *Cheap and Easy Detox Diet Plan*
- *Gluten, Candida, Leaky Gut Syndrome, and Autoimmune Diseases*
- *Understand Hypothyroidism – Prevention and Natural Remedies*
- *Still Have Candida? How Mercury Fillings Cause Candida Overgrowth*