Is Xanthan Gum Safe for Cats?

By Laurie Goldstein

Xanthan gum, a thickener and emulsifier used in many pharmaceuticals, cosmetics, industrial applications, and foods (not just cat food) is responsible for deaths and illness in infants from a deadly form of colitis. As reported by the New York Times last year, the President of the company that makes the product in question (SimplyThick) said “There was no need to conduct studies, as the use of thickeners overall was already well established. In addition, the safety of xanthan gum was already well established.” (1)

That's what they tell us about its use in cat foods too.

Marketed as an “all natural” ingredient in gluten-free recipes (2) xanthan gum is actually “the first of a new generation of polysaccharides [fibers] produced by biotechnology. The polymer was discovered by the US Department of Agriculture (USDA).” The laboratory-produced gum “appeared to have valuable properties that would allow it to compete with natural gums.” (3) The commercial production of Xanthan gum began in the U.S. in 1969. It is produced by the fermentation of glucose, sucrose, or lactose (derived from corn, soy, wheat or whey) with the bacteria Xanthomonas campestris. X. campestris is the same bacteria responsible for causing black rot to form on broccoli, cauliflower, and other leafy vegetables. The bacteria forms a slimy substance that acts as a stabilizer and thickener, an emulsifier, and a surface-active agent. (4) After a fermentation period of several days, it is heat treated to inactivate the organism: the gum is isolated from the bulk medium by precipitation with either isopropyl alcohol or ethanol (highly toxic carcinogens according to the American Cancer Society (6)). It is then dried, milled, sieved and packaged.

In other words, xanthan gum is a laboratory creation. It is a product

- fermented on potential allergans
- if fermented on corn or soy these are most likely genetically modified
- cannot be manufactured without the use of toxic carcinogens.

Xanthan gum is a “Generally Recognized as Safe” (GRAS) food additive in the US, Canada, Europe, and many other countries. Yet it is known to be potentially as irritating as gluten for some with Celiac disease, causing gas, bloat and diarrhea (5); and for causing flare-ups for those with Crohn’s disease or Ulcerative Colitis (inflammatory bowel disease). In fact, “the rapid increase in the

incidence and prevalence of IBD in recent decades strongly suggests an environmental trigger for IBD, one of which may be dietary patterns. There are several pathways where diet may influence intestinal inflammation, such as direct dietary antigens, altering the gut microbiome, and affecting gastrointestinal permeability. (7) A review article, "Evidence-based dietary advice for patients with inflammatory bowel disease" indicates that emulsifiers in processed foods have been indicated in Crohn's disease. (8)

At this point, it almost doesn't seem surprising that something went wrong with a food additive "generally recognized as safe" in the sensitive intestines of premature infants. However, with the rare, but tragic loss of life, we are left wondering – what happened? According to the New York Times article, the FDA investigators reporting on the deaths theorized that the infants' intestinal membranes could have been damaged by bacteria breaking down the xanthan gum into "too many toxic byproducts," as the intestines of premature infants are "far more likely" to have bacterial overgrowth than adults.

Whether or not xanthan gum is contributing to the development of IBD in cats is not known, but one thing is clear: with the established link between bacterial overgrowth and IBD (including Feline IBD (9)), cats with inflammatory bowel disease should not be eating xanthan gum.

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