

What was the reason for the pet food recall?

Most informed individuals know that the reason so many pet foods were recalled earlier this year was due to contamination of the food with melamine. Usually used to make fertilizer and plastics, melamine has no nutritional value but it is rich in nitrogen, meaning it raises the nitrogen level of feed. That makes products appear to be higher in protein, and can lead to higher prices for feed for stock animals such as pigs, chickens, and fish, as well as for household pets such as cats and dogs. Wheat flour marketed as the higher quality ingredient wheat gluten (this is higher in protein than wheat flour) was imported from China for use as an ingredient in various pet foods. According to Dr. Marion Nestle and Dr. Malden Nesheim in a letter to the editor in the December 1st 2007 issue of the Journal of the AVMA, Italian investigators surveyed the fraudulent use of melamine in the 1980's to boost the apparent protein content in animal feed.

We are thankful to the practitioners who became aware of the increased incidence of kidney problems caused by the ingredient and who collaborated with pet owners and laboratory personnel to track down the source of the poison. Melamine combined with another contaminant in the food, cyanuric acid, to produce crystals in the tissues of affected animals. The cyanuric acid was probably present as a by-product of melamine production, and the two ingredients together have a more toxic affect on the kidneys than each alone. The compounds ultimately produced crystals in the kidney tissue, resulting in tissue death and consequent failure of the kidneys to perform their primary function of eliminating metabolic wastes. The affected animals perished after their circulatory systems built up levels of wastes that poisoned the rest of their cells. Cats, because of their small size and brand name loyalty to their food, were killed by this contaminant in higher numbers than dogs.

The manufacturer of the adulterated foods took responsible and appropriate steps to keep the public informed. One message that we took home at Lillington Veterinary Hospital is that doctors need to be vigilant, to pay close attention to the role nutrition plays in disease, to ask questions and work as partners with owners. There is much we don't know about our patient's requirements and the globalization of our food supply, but we do know that there is a difference among foods in terms of quality. Unfortunately, the victims of this syndrome were often fed what we perceive to be high quality foods (and substitutes marketed as lower cost alternatives), manufactured by a company trying to balance production costs with quality. It's hard to even know if you still get what you

pay for, but beware of a low cost food masquerading as comparable to the best in the marketplace. Our hearts go out to those whose animals were affected by this tragedy.