

Link possible between pet food contamination and baby formula contamination

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A study published in the November issue of a scientific journal, *Toxicological Sciences*, which is published by Oxford Journals on behalf of the Society of Toxicology, describes the kidney toxicity of melamine and cyanuric acid based on research that was done to characterize the toxicity of the compounds that contaminated pet food in North America in 2007.

This research points to a possible link between the pet food contamination that occurred in North America in 2007 and the recent adulteration of milk protein and resultant intoxication of thousands of babies from Asia.

The research described in the paper identifies the principal contaminants as melamine and cyanuric acid. Neither of these compounds is very toxic when administered alone; however, when given in combination, the two compounds form a virtually insoluble complex. This complex forms in the tubules of the kidney, blocking urine flow and causing renal failure. The research in the paper was done in rats, but because the toxicity depends only on the two compounds being present in the kidney at the same time, is relevant to other species, including humans.

The research presented in the paper also shows that the melamine-cyanuric acid complex is soluble in acid, suggesting that acidification of the urine in the distal tubules of the kidney may be a reasonable

treatment option.

The paper is posted at: www.toxicology.org .

Source: Oxford University

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