

## Grapes and Raisins Can Be Dangerous

By Christine Wilford, DVM

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(as seen in *OnLead*, NCOTC, Nov. 2001)

Concern is being expressed about dogs that suffered apparent kidney failure after ingesting grapes or raisins. In the May 15, 2001 issue of the *Journal of the American Veterinary Medical Association*, a letter to the editor described preliminary observations of five dogs that had ingested large quantities of grapes and five that had ingested large quantities of raisins. All developed serious medical problems. Information on the dogs was obtained after a review of the cases in the computerized database of the ASPCA Animal Poison Control Center in Urbana, IL. The estimated amount of grape or raisins ingested was known in only four of the 10 dogs. In those dogs, it ranged from 9 ounces to 2 pounds. When the body weight of the dog was considered, the "dose" ranged between roughly 1 to 2.5 ounces per pound of dog's body weight.

Of the dogs who ate grapes, three ate red, seedless grapes. The grapes came from several sources, including grape crushings and fermented grapes from wineries. The raisins involved were mostly from various commercial brands of sundried raisins. In all reports, vomiting began within the first few hours after ingestion. Most dogs vomited or defecated partially digested grapes or raisins. Loss of appetite, diarrhea, lethargy and signs of abdominal pain were also reported. Not all dogs exhibited all symptoms. Signs continued for anywhere from several days to three weeks.

Laboratory findings were consistent with sudden onset of kidney failure. Abnormal blood values developed in most of the dogs within 24 hours to several days after ingestion, including elevated levels of calcium, phosphorus, BUN (blood-urea-nitrogen) and creatinine. Abnormally decreased urine output and inability to produce urine was reported in 5 dogs. Some dogs produced abnormally dilute urine. Two dogs died and three were euthanized because treatment was unrewarding.

Five dogs recovered after aggressive treatment, which lasted up to three weeks in some cases. Intensive treatment included intravenous fluid therapy, along with medications to support remaining kidney function. One dog underwent dialysis and recovered completely. Microscopic examination of kidney tissue from one dog revealed abnormalities, but those abnormalities were not severe enough to explain the degree of clinical disease experienced by the dog. At the time of publishing, the results of screening tests for the presence of contaminants in the dogs' blood were negative, but the results of some tests were not available yet.

Although no specific scientific reports have been published, and there is currently no definitive explanation, the authors advise that the ingestion of significant quantities of grapes or raisins is a serious

situation and should be managed aggressively. If ingestion is known to have occurred, try to prevent the digestion and absorption of the grapes or raisins. To do this, vomiting should be induced, the stomach should be pumped, and activated charcoal should be initiated. Fluid administration to maintain kidney function should continue for at least 48 hours. Blood work should be evaluated for at least 72 hours to monitor for the development of kidney failure.

It is not certain what caused renal failure in these dogs. Possible causes include mold toxins, high amounts of vitamin D3, contamination with pesticides, heavy metals or other environmental toxins, or some other unknown toxin within the grape or raisin itself. Investigation into this matter will continue.

*Christine Wilford received her doctorate of veterinary medicine from Texas A & M University. She practices in Seattle (Reprinted from AMSCOP)*

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### **Several e-mails have contained the same or similar warnings.**

The following is from an item forwarded by a member of the Samsmiles group:

"The ASPCA-run Animal Poison Control Center is working hard to get the word out to people that raisins and grapes are both considered toxic to dogs now."

"They have a poison hotline – 888-4-ANIHELP (yes, there is an extra digit there but never mind—this will help you remember the number). They do charge for immediate crisis poison counseling, but do NOT charge people who call to provide information about a case, and they are grateful for the data. So anyone who is quite sure they've had a death caused by this, please contact the center and provide the details."

You may see the bulletin put out by the ASPCA in January 2002 at the following site:  
[http://www.aspc.org/site/News2?page=NewsArticle&id=6432&news\\_iv\\_ctrl=1101](http://www.aspc.org/site/News2?page=NewsArticle&id=6432&news_iv_ctrl=1101)

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