

DANGEROUS FOODS

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[Every effort has been made to ensure accuracy of information. However, this is not a substitute for prompt veterinary care. Any similarity to other publications is unintentional. Published online at Sealyhealthguard.org, 8/1/11. Originally published in ASTC The Barks 2002]

While trying to keep the cookies away from the hostess's dog at a holiday party I began to wonder about foods like chocolate that are toxic to dogs. How much is dangerous? What are the symptoms and treatment?

We all know that antifreeze and many flowers are very toxic to pets. Two helpful charts listing these can be found on:

www.nhahonline.com/9toxicosis.htm and

www.moonstruckmeadows.com/poison.htm (this one also lists the symptoms).

Did you know that besides chocolate, onions, raisins, grapes and macadamia nuts are also dangerous?

CHOCOLATE

Chocolate contains theobromine, which is a heart stimulant and diuretic. Theobromine and caffeine are both methylxanthines. These are rapidly absorbed through the GI tract and metabolized in the liver, then excreted through the kidneys. They inhibit adenosine receptors, causing central nervous system stimulation, tachycardia and vasoconstriction. They also increase free calcium of muscle cells, increasing muscular contractility. The half-lives of caffeine and theobromine in dogs are about 4.5 hours and 17.5 hours respectively.

Symptoms include vomiting, diarrhea, polyuria, hyperactivity, weakness, cardiac arrhythmias, tremors, seizures, coma and death, depending on the amount ingested.

HOW MUCH IS DANGEROUS?

For a 20 pound Sealy, 16 ounces of milk chocolate and only 2 1/2 ounces of unsweetened chocolate.

TREATMENT

There is no antidote to theobromide poisoning. Treatment is geared toward supporting the animal's basic life functions, preventing further absorption of the chocolate, hastening elimination, and treating the symptoms. If less than four hours have passed since ingestion, induce vomiting. This should get rid of about 70% of the stomach's contents. The chocolate can melt and form a ball in the stomach, which can be difficult to remove. If the dog has eaten an amount that can be toxic, he must be placed under the care of a veterinarian, who will stabilize and monitor the dog, and administer activated charcoal to move the poison along through the system faster and with less absorption.

MULCH

Cocoa bean shell mulch is a relatively new product used by many home gardeners. It is attractive and even has a nice fragrance. However, it may contain from .19 to 2.98 percent theobromine, and is also dangerous if your dog chooses to eat it.

ONIONS

Onions, whether cooked, raw or dehydrated, contain the toxic ingredient thiosulphate. These are hydrolyzed to disulfides which are oxidizing agents that can cause hemolysis of erythrocytes (red blood cells). This can cause anemia.

An early study showed that onions are toxic when a dog eats more than .5 percent of his body weight. For a 20 pound dog that would be .1 pound of onion. In chronic exposures of low doses, the anemic effect is lessened because erythrocytes are being regenerated simultaneously. The hematocrit may not reach its lowest point until several days after onion exposure.

Severe onion toxicosis can be lethal. If they were eaten within the last two hours, vomiting should be induced using 3 percent hydrogen peroxide, followed by the administration of activated charcoal. Syrup of ipecac is not recommended; it is unreliable and can cause protracted vomiting. The dog's hematocrit should be monitored over a period of time to determine the severity of anemia and whether it is improving. It may take several days after onion ingestion for the hematocrit to reach its lowest point. Whole-blood transfusions may be necessary for critically ill dogs.

GRAPES AND RAISINS

Grapes and raisins pose another threat. The ASPCA's Animal Poison Control Center has an Antiox database, a computerized system that contains nearly 500,000 animal-related medical conditions. Veterinarians can use this to quickly identify toxic-substance exposures, recognize clinical signs and administer proper treatment. By tracking these cases, similarities in animal medical conditions nationwide can be logged and trends identified.

Around 1989, the APCC began noticing a trend in dogs who had eaten grapes or raisins: nearly all developed acute kidney failure. As more cases were reported, enough data was generated in the database to help veterinarians identify and treat dogs at risk. In all of the cases, there was a potential for acute kidney failure. Whether the ingested grapes were purchased fresh from a store or grown in private yards didn't seem to matter, nor the brand eaten. The ingested amounts varied considerably, from over a pound of grapes to as little as a single serving of raisins. The cases weren't from any specific region of the U.S. Suspect grapes and raisins have been screened for various pesticides, heavy metals (like lead and zinc) and mycotoxins (toxins from fungi). So far, all tests have come back negative. In cases where the grapes were grown in private yards, owners confirmed that no insecticides, fertilizers or antifungals had been used on the fruit.

Dogs in the database who ate grapes and raisins typically vomited within a few hours of eating them. Some dogs would stop eating and develop diarrhea. They often became quiet and lethargic and showed signs of abdominal pain. These symptoms lasted several days and sometimes even weeks. Blood chemistry panels showed consistent patterns. Blood calcium and blood urea nitrogen levels were often elevated, as well as creatinine and phosphorous (substances which reflect kidney function). Even though the exact cause of kidney failure is unknown, dogs can be treated to prevent its development. Inducing vomiting shortly after ingestion then administering activated charcoal helps prevent absorption of potential toxins. Blood chemistry should be monitored daily for at least three days. If all blood work is normal after three days, it's unlikely that kidney failure will occur.

MACADAMIA NUTS

Macadamia nuts can cause weakness or paralysis of the hindquarters, muscle tremors and sometimes painful and swollen limbs. The toxic compound is unknown. Dogs have been affected by eating as few as six macadamia nuts, while others have eaten as much as 40. Symptoms appear less than 12 hours after ingestion. Luckily, the symptoms seem to be short in duration, and most dogs return to normal within 24 to 48 hours with only observation at home.

AVOCADO

The avocado fruit pit and the plant are toxic. They can cause difficulty breathing and fluid accumulation in the chest, abdomen and heart.

EXCESSIVE FATS

Pancreatitis can be caused by excessive fats.

AN OUNCE OF PREVENTION

Obviously, preventing your dog from eating the above toxic products is the best solution. But if an accident should happen, now you know some of the symptoms and how to proceed with the best treatments.