

**Frontier Veterinary Clinic
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CHOCOLATE POISONING

I've heard that chocolate is toxic to dogs? Is this true?

Yes, chocolate is toxic to dogs. While rarely fatal, chocolate ingestion often results in significant illness. Chocolate is toxic because it contains the alkaloid theobromine. Theobromine is similar to caffeine and is used medicinally as a diuretic, heart stimulant, blood vessel dilator, and a smooth muscle relaxant. Theobromine can be poisonous in large amounts.

How much chocolate is poisonous to a dog?

Toxic doses of theobromine are reported to be about 100 mg/kg (approximately 50 mg/lb) and fatalities occur at around 200 mg/kg (approximately 100 mg/lb).

The amount of toxic theobromine varies based on the type of chocolate.

Cooking or baking chocolate and high quality dark chocolate contains between 15-20 mg of theobromine per gram while common milk chocolate only contains about 1.5 mg/gm of theobromine. This means that a small dog,

weighing five pounds, would only have to eat as two ounces of baking chocolate or as little as fifteen ounces of milk chocolate to potentially show signs of poisoning. A larger dog, weighing fifty pounds, would have to eat as twenty ounces of baking or dark chocolate to become ill.



What are the clinical signs of chocolate poisoning?

Clinical signs are based on the amount and type of chocolate ingested. In older pets that eat a large amount of high quality or baking chocolate, sudden death from cardiac arrest may occur. This is especially common in older dogs with preexisting heart disease. For many dogs, the most common clinical signs are vomiting and diarrhea, increased thirst, panting or restlessness, excessive urination, muscle spasms and occasionally seizures. Increased heart rate and abnormal behavior are also common.

Clinical signs of chocolate poisoning can take up to twelve hours to develop. Once theobromine is absorbed into the body, it may remain there for up to twenty-fours causing damage. It is important to seek medical attention as soon as you suspect that your dog has eaten chocolate.

What should I do if my dog eats chocolate?

Since chocolate is potentially toxic to dogs, you should have your pet examined by a veterinarian immediately. The sooner the theobromine is removed from the body or the pet is stabilized, the better your dog's prognosis.

What is the treatment for chocolate poisoning?

Treatment is based on the amount and type of chocolate eaten. If treated early, removal of the chocolate from the stomach by administering medications to induce vomiting may be all that is necessary. In cases where the chocolate was ingested several hours earlier, activated charcoal may be administered to block the absorption of theobromine in the stomach and small intestine. Activated charcoal may be administered every four hours for the first twenty-four to thirty-six hours to reduce the continued reabsorption and recirculation of theobromine.



It is very common to provide supportive treatments such as intravenous fluid therapy, to help dilute and promote excretion of the toxin. All dogs ingesting chocolate should be closely monitored for the first twenty-four hours for any signs of irregular heart rhythm.

I saw a treat made for dogs that contained chocolate. Isn't that dangerous?

Many gourmet dog treats use carob as a chocolate substitute. Carob looks similar to chocolate and the two are often confused. Some specialty dog bakeries will use a small amount of milk chocolate in their treats. Since the amount of theobromine is so low, this may be safe for most dogs. However, most veterinarians recommend that you avoid giving your dog chocolate in any form.