

**Dog Tips** 

**Cat Tips** 

# Causes Fast-Acting Death Within Days and Has No Antidote — Keep It Far Away

It was meant to replace a previous product more safely. Yet it's a fast-acting neurotoxin with no antidote. Once your pet shows neurological symptoms, successful treatment is challenging and expensive, and death is likely imminent. Keep it far away.

#### Reviewed by Dr. Becker

## **STORY AT-A-GLANCE**

- Rodenticides are highly toxic to pets. Common types include long-acting anticoagulants, bromethalin, hypercalcemic agents and zinc phosphide
- All types of rat bait are poisonous to pets, but bromethalin is especially deadly because it is fast-acting and currently there is no antidote
- If you have rodents around your home, a nontoxic alternative to rodenticides are humane traps
- To discourage mice, rats and other pests, make sure your trash cans are inaccessible to them
- To keep your pets safe, supervise them when they're outside and don't allow them to consume dead rodents

#### Editor's Note: This article is a reprint. It was originally published March 31, 2018.

Year after year, rodenticides appear near the top of the list of pet poisoning agents. There are a few common types of rodenticides, including:

• Long-acting anticoagulants (LAACs) — Long-acting anticoagulants, called LAACs, are the most common type of mouse and rat poisoning in use today. Active ingredients in these products include brodifacoum, diphacinone, warfarin and bromadiolone, among others.

Most of these products contain green dye so humans can recognize them quickly. But since dogs and cats have poor color vision, the pellets may look like dry pet food. When ingested by an animal, anticoagulant agents block the synthesis of vitamin K, an essential component for normal blood clotting.

This reduces production of certain clotting factors. There is no effect on clotting factors already in circulation in the bloodstream, which is why there is a lag time between ingestion of the poison and bleeding problems. The eventual result, however, is spontaneous and uncontrolled bleeding, which leads to death.

When a dog or cat ingests an LAAC, it usually takes three to five days before signs of poisoning become obvious. In cases of chronic exposure, however, symptoms can appear sooner. Common symptoms are signs of internal bleeding or blood clotting issues, and include lethargy, exercise intolerance, coughing, difficulty breathing due to bleeding into the lungs, a swollen abdomen from accumulation of blood, weakness and pale

gums.

There can also be vomiting or diarrhea (sometimes bloody), bleeding from the rectum, spontaneous nosebleeds and bruising that appears suddenly without trauma. Other symptoms can include bloody urine, swollen joints, loss of appetite, and bleeding gums or other bleeding in the oral cavity.

Signs of bleeding in more than one location are a definite clue there's a problem with blood clotting.

• **Bromethalin** — Bromethalin is a poison many manufacturers of rodenticides are now using as a replacement for long-acting anticoagulants in residential-use rat poison products. Unfortunately, although bromethalin products are meant to be safer, they have an unintended consequence.

Bromethalin is faster-acting than older rodenticides, and unlike long-acting anticoagulants, it has no antidote. Many veterinarians have already been challenged with treating bromethalin-poisoned pets, primarily dogs. Bromethalin is a fast-acting neurotoxin that affects the brain and liver. In pets, signs of brain swelling and central nervous system disturbance appear within two to 24 hours of ingestion.

Symptoms depend on how much of the poison was swallowed, and include unsteadiness, weakness, muscle tremors, paddling motions of the limbs, hyper-excitability, depression, vomiting, high fever, stiffness in the front legs and seizures. Once a pet is showing neurological signs, he or she may only have a day or two to be saved, and successful treatment is both difficult and expensive.

- **Hypercalcemic agents** Hypercalcemic agents contain cholecalciferol, or vitamin D, which raises the calcium content in blood to highly toxic levels, resulting in cardiac arrhythmias and death.
- **Zinc phosphide** Zinc phosphide kills rats, mice and other rodents when acid in their digestive systems reacts with the phosphide, creating toxic gas. The bait usually contains a mixture of zinc phosphide and an emetic to cause vomiting if eaten by humans or pets. (Most rodents don't have a vomit reflex, which is why the emetic doesn't cause them to throw up.)

The good news is pets often throw up after ingesting rodent bait containing zinc phosphide. The bad news is that the toxic gas (phosphine gas) from the vomit, if inhaled by a nearby human or animal, can cause damage to the heart and lungs, nervous system, liver and kidneys, and can be fatal.

# A 'Green' Alternative to Rodenticides

If <u>rats</u>, mice or other rodents are a problem around your home, place one or more live traps called the <u>Havahart</u>® that allow you to remove the critters without using toxins or poisoning your environment. Humane traps are safe, reusable and in the long run, more economical than rodent bait.

The rodents you catch can be released back into nature far from the trap site. If that's not possible, you can do a search online for "humane rodent control" to find local wildlife control organizations that humanely remove destructive and dangerous pests.

To avoid inviting rodents onto your property, it's important to keep food securely stored inside your home, and make sure trash bags are placed inside garbage cans stored outside, with the lids on. Also be sure your pets are supervised when they're outside. Don't let them consume rodents on your property or during walks around the neighborhood.

If you think your pet has consumed any type of poison or an animal that may have consumed poison, you need to get him to your veterinarian as soon as possible, even if he appears fine at the moment. By the time a dog or cat begins showing symptoms of toxicity, things can progress very rapidly. Early detection and treatment is always the smartest choice, and the one with the most favorable outcome.

### **Sources and References**

PetMD, April 26, 2011