

Heavy Metal Warning: Could Your Pet Be at Risk?

Toxicosis may be rare, but it does happen. Pets risk two main sources, plus secondary ones. All are worth considering. Test for a definitive diagnosis, then here are nine ways to detoxify the poison. Discuss with your vet if it's a severe case.

Analysis by [Dr. Karen Shaw Becker](#)

STORY AT-A-GLANCE

- Lead toxicosis in pets may be rare, but we really don't know because testing is uncommon, and symptoms can be nonspecific and/or mistaken for other diseases
- Two potential sources of lead exposure in pets include municipal water supplies (e.g., in Flint, Michigan) and processed pet food
- Other avenues of exposure include homes built before 1978, linoleum, toys, and food or water dishes containing lead
- Treatment for lead exposure or toxicosis depends on the amount of ingested and the pet's symptoms
- There are many steps you can take to help reduce your pet's exposure to lead and other toxins

Veterinary experts believe lead toxicosis in pets is probably rare, but they're offering only an educated guess, since testing is uncommon. In addition, lead exposure can trigger nonspecific neurologic and gastrointestinal (GI) clinical signs, and to further complicate things, lead toxicosis can be mistaken for other diseases.¹

Two Potential Sources of Lead Exposure in Pets

Many of you probably remember the lead contamination crisis in the Flint, Michigan municipal water supply that surfaced in 2015. An assistant professor at the Michigan State University College of Veterinary Medicine tested blood lead concentrations in dogs in the Flint area in 2016.

His testing showed that the median lead concentration in tested dogs was 4 times the median concentration in control populations of dogs, and this was after the contamination had been identified and most pet parents had started providing their dogs water from other sources.²

Lead also occasionally turns up in processed pet food. Last year, a pet parent filed a class action lawsuit against Blue Buffalo for lead contamination. The plaintiff claimed his dog became ill after eating Blue Buffalo dog food. The 4-year-old Cocker Spaniel-Poodle mix suffered kidney disease and ultimately kidney failure after eating primarily Blue Buffalo formulas.

The plaintiff alleged that lead in Blue Buffalo's dog food may have contributed to his dog's kidney disease since the heavy metal was discovered to have bioaccumulated in the animal's tissues. According to the lawsuit:

“Exposure to lead in food builds up over time. Buildup can and has been scientifically demonstrated to lead to the development of chronic poisoning, cancer, developmental, and reproductive disorders, as well as serious injuries to the nervous system, and other organs and body systems.”³

Other Ways Pets Can Be Exposed to Lead

Pets living in urban areas or in houses built prior to 1978, especially homes under renovation, are at significant risk of exposure due to the potential presence of lead-based paint.

Dogs may (intentionally or accidentally) consume flakes of lead-based paint or pick up contaminated dust on their paws. Cats are less likely than dogs to eat paint flakes, but they can consume lead-contaminated dust while grooming.

Additional sources of lead exposure include:

- Linoleum
- Lead weights
- Lead shot
- Contaminated foliage
- Lead foil
- Car batteries
- Plumbing and roofing materials
- Lead-poisoned animal carcasses
- Food or water dishes containing lead
- Toys
- Contaminated food and treats
- Golf balls

Symptoms of Lead Poisoning

Lead is known to be toxic to people, animals, and the environment. If enough lead is consumed, it can be fatal, but even chronic exposure to low levels can cause serious health damage, especially to the GI system and central nervous system (CNS). Common signs of lead poisoning in pets include:

- Loss of appetite
- Colic
- Vomiting
- Diarrhea
- Constipation
- Anxiety
- Hysterical barking
- Jaw champing

- Excessive salivation
- Blindness
- Incoordination
- Muscle spasms
- Convulsions
- Abnormal posture
- **Head pressing**

While some animals display hyperactive behavior due to CNS excitation following lead exposure, others may show signs of CNS depression, such as staggering, **lethargy**, or slowed reflexes and breathing.

If you're concerned your pet may have lead exposure, contact your veterinarian. Lead concentrations in the blood and possibly in certain tissues will need to be measured for an accurate diagnosis, as well as to rule out other diseases, such as rabies, distemper and hepatitis in dogs, which can cause similar symptoms.

Generally, a blood lead level above 0.25 ppm (or 25 mcg/dl) confirms a diagnosis of lead poisoning. Some labs will test your pet's fur for accumulated lead, if exposure is thought to be chronic and sub-clinical, where your pet isn't exhibiting any of the above symptoms.

Treating Lead Toxicosis

If your pet has ingested a large amount of lead, seek emergency medical care. Vomiting may be induced or surgery may be required to remove the source of the lead. In cases of chronic exposure, chelation therapy is often necessary, using a chelating agent such as Calcium EDTA, which binds to heavy metals in the blood so they can be excreted in the urine.

If your pet shows elevated levels of lead on test results but isn't having symptoms, most integrative veterinarians will use intravenous (IV) vitamin C therapy to help expel the excess lead from the body.

Detoxification Recommendations

Lead that is ingested and absorbed into the body (which happens very efficiently in the GI tract) is riskiest for your pet. I recommend filtering your home water supply to protect your entire family, including pets, from toxins, including heavy metals.

A fresh, nutritionally optimal, species-specific diet will also help support your furry family member's overall health as well as his ability to detoxify. I include fresh cilantro, moringa, blueberries and chlorella in the diets of pets exposed to heavy metals.

The following natural detoxifying agents can also be helpful in cases of lead poisoning. Talk with an **integrative veterinarian** to develop the best treatment plan for your pet.

- **Bentonite clay, humic and fulvic minerals** are used by many native cultures and wild animals as a means of detoxification when a poison has been ingested. Clay and other soil-derived binders like humic and fulvic

acids (which are negatively charged) binds to positively charged molecules (lead and other heavy metals) and efficiently removes them from the gut.

- **Oral vitamin C** can be supplemented to facilitate the excretion of lead from the body. Supplemental C may loosen your pet's bowels, so buffered C (sodium ascorbate) may be preferable for long-term use.
- **Schisandra fruit** is included in many traditional Chinese medicine (TCM) formulas because it helps protect the liver against various toxins. The hepatoprotective nature of this fruit assists in keeping healthy cells resilient against the effects of environmental toxins.
- **Curcumin** gives turmeric its yellow color and is a potent antioxidant that supports both phase 1 and phase 2 **liver detoxification**. It's also known for its ability to inhibit pro-inflammatory enzymes, and recent studies indicate curcumin may have a protective effect against mercury and other heavy metals.
- **Phosphatidylcholine** is critical for a detoxification process known as methylation. Pets' bodies are wired with potent hormones needed for emergencies, but these hormones are very damaging to body tissues with chronic exposure. The faster the body can get rid of these hormones once they are no longer needed, the less damage is done.
- **Resveratrol** is the active ingredient in the plant known as Japanese knotweed. Resveratrol reduces liver enzyme elevations by reducing lipid peroxidation in the liver. It helps the liver clean house by flushing accumulations of fat so the organ can function optimally.
- **Catechins in green tea** dramatically reduce or modify cancer-causing molecules that damage cellular DNA. Inactivation and excretion of carcinogens are also a big part of keeping your pet's body healthy.
- **Superoxide dismutase (SOD)** is a potent enzyme responsible for the removal of free radicals from your pet's body, which helps the lymphatic system work optimally.
- **N-acetylcysteine (NAC)** is a cellular antioxidant that boosts your pet's tissue glutathione levels. NAC protects against oxidative stress and is a potent free radical scavenger.

It's a good idea to offer your pet intermittent detoxes to help remove accumulated toxins (from ultraprocessed pet food, water and environmental pollutants) from his body. In the case of a serious issue like acute lead poisoning, however, a more intense protocol supervised by your veterinarian will be necessary.

Sources and References

¹ [JAVMA News, September 27, 2017](#)

² [Journal of the American Veterinary Association, October 15, 2017, Vol. 251, No. 8, Pages 912-921](#)

³ [Zakinov-v-Blue Buffalo, Case 3:17-cv-01301-AJB-WVG, 6/26/17](#)
