Heavy Metal Poisoning in Pet Birds

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B... Birds: Sources of Heavy Metal Poisoning ... First Aid Instructions (Birds).

Lead or zinc poisoning can happen quickly or build up slowly over time depending on how much of the metal a bird ingests, how much of the toxin is present, and other factors.

Behavioral changes, such as screaming, might happen because the bird is in pain and otherwise uncomfortable.

Many of the below symptoms also appear in other types of illnesses. If you suspect your pet has ingested something inedible, a vet visit is recommended. If you can, bring the object with you.

Heavy Metal Poisoning in Birds:

Toxins

Zinc

Sources

- Galvanized wire cages, toys, chains and water or food bowls (galvanized coatings may contain up to 99.9% zinc)
- Zinc hardware (washers, nuts, wire)
- U.S. pennies minted after 1983

Symptoms / Clinical Signs

- Lethargy
- Shallow respiration
- Anorexia / reduced appetite
- Decreased body weight
- Weakness; falling of perch; unable to walk, stand or fly straight
- Polyuria, polydipsia
- Diarrhea
- Hemolytic anemia
• Kidney dysfunction
• Cyanosis
• Possible liver and pancreatic abnormalities
• Regurgitation
• Feather pickings
• Pale mucous membranes
• Shivering Melena
• Death

**Lead**

Absorbed lead is retained by soft tissues and eventually by bone and is slowly excreted through the kidneys.

Lead affects the CNS, renal, hematopoietic, neurologic and gastrointestinal systems.

Lead can cause cerebral edema and neuronal damage, demyelination and decreased peripheral nerve conduction peripherally.

Lead can cause anemia through increasing RBC fragility.

Bone marrow suppression is also a potential effect

**Sources**

• Lead paint chips
• Twist ties
• Tooth brushes
• Plastic / vinyl coverings
• Cardboard boxes with dyes
• Imported candy / food packaging wrapping/labels
• Crystal
• Fishing sinkers
• Some artist paints
• Lead weights / lead hardware
• Stainless glass windows / solder in stained glass/Tiffany style lamps
• Venetian blinds
• Lead-coated household products
• Some wine/champagne bottle foil
• Plumbing material
• Lead shot
• Tile, linoleum
• Improperly glazed bowls
• Some antiques
• Curtain weights, shower curtain weight, fishing sinkers
• Tire weights
• Batteries
Symptoms / Clinical Signs

- Depression
- Weakness; falling of perch; unable to walk, stand or fly straight
- Anorexia
- Regurgitation / vomiting
- Abnormal droppings / blood in droppings, red urine
- Polyuria
- Polydipsia
- Greenish-black diarrhea
- Ataxia
- Head tilt
- **Seizures**
- Blindness
- Hematuria (parrots)
- Death

Ref: Adapted from Source: Clinician Notebook

Testing for Lead and Zinc:

The Louisiana Animal Disease Diagnostic Laboratory tests items for the presence of lead or zinc. Their instructions are to scrape off a nickel sized amount of paint with a new razor blade and collect it on a piece of paper (8.5 X 11), fold it up, and mail it through regular mail with payment. This sample can then be mailed to:

LADDL
PO Box 25070,
Baton Rouge, LA 70894

Your Bird has a Heavy Metal Poisoning


From talking with you, looking at your bird and from the X-rays I know that your bird has heavy metal poisoning. This is a life threatening disease and your bird will need to stay in hospital until it starts eating. It may take as short as one day and as long as 10 days to detoxify your bird. When the heavy metal has been in the body for too long or when there is excessive amounts of heavy metal ingested then it may be impossible to save your bird, but we manage to save more than 90% of birds presented to us with heavy metal poisoning. I can not predict the outcome but must rely on the daily progress of your bird.
Please ring me twice daily to check on the progress. We will do our best!

What is heavy metal poisoning?
There are several types of heavy metal poisons which affect birds, but the most common are zinc, lead and copper poisoning. Zinc is used on many cages to prevent rusting and when new, before it has oxidised, it is toxic to birds when ingested. We see this poisoning often in birds placed into a new aviary or cage. It is called "New Wire Disease" for this reason. Lead poisoning occurs in older houses and when birds chew on the solder which joins the wire together in the cage. Copper poisoning is less common but occurs when the bird chews an electrical wire.

It must be remembered that not every bird in a new cage will get heavy metal poisoning. Hen birds which have a mineral deficiency will chew on wire more than a bird that has a perfect diet. Inquisitive, depressed and naughty pet birds will chew wire and so may ingest the zinc coating or solder "dag". The common signs of heavy metal poisoning are increased thirst, vomiting in larger birds, sudden depression, not eating and a dark green diarrhea.

How is it treated?
When the metal is in the gizzard or lower, heavy metal poisoning is treated with an antidote-like injection called Calsenate. This substance leeches the poisonous zinc/lead out of the ingested metal fragments and renders the zinc or lead harmless. But at the same time the bird must be fed and its fluid intake maintained or the kidneys and liver will shut down. Surgery to remove the ingested metallic poison is performed when the metal is still in the crop. Antibiotics or anti-fungals may be necessary pending the culture test.

Your bird must be hospitalised until it is eating and drinking by itself and then it can be discharged and treated as an outpatient or at home.

Are there any other special instructions?
To accelerate the healing process I recommend that all birds are given F-vite on the sterile seed day for 1 week, then for one day twice weekly after this time. The TurboBooster helps lubricate the metal fragments down through the bowel. The F-vite is given because often the ingestion of the metal relates to a mineral imbalance. Following the treatment DufoPlus and Ioford are given twice weekly. Make sure your bird is actually eating and drinking. If not, then it will need to return for further injections and force feeding in hospital.

Is this disease contagious to humans or other birds?
No.

Can heavy metal be prevented from recurring?
Yes. By providing good levels of minerals and by scrubbing new wire with a vinegar solution to accelerate the oxidisation process which renders the zinc non toxic. New cages can be left to weather for 3 months of longer before birds are introduced to the aviary.

Avianweb Notes:
Heavy Metal Toxicity:

The **major source of poisoning of pet birds** is lead found in **curtain (drapery) weights**, **curtain pulls, leaded and stained glass**, fishing sinkers and ammunition carelessly discarded in ashtrays or dropped on the floor, **costume jewelry**, and in the **lead wrapping around the tops of wine bottles**, to name the most common sources. For details, please see below.

- **Sources of Zinc**: padlocks, galvanized cage wire and dishes, clips or staples, bird toy snaps, zippers, keys, nails, plumbing nuts, quick links, nuts on animal transport cages, hardware cloth, chrome, and some antirust paints, shampoos and skin preparations.

- **Sources of Lead**: tap water, solder, batteries, galvanized wire, hardware cloth, bells with lead clappers, linoleum, paints (lead-based, and those with leaded drying agents), stained glass, curtain weights, fishing and diving accessories, certain ceramic pieces, foil covering on champagne or wine bottles, leaded gasoline fumes, lead frames of stained glass windows and tiffany lamps.

- **Symptoms**: feather picking, depression, gastrointestinal stasis, intermittent lethargy, seizures, dysphagia, ataxia, increased thirst and urination, loss of balance, dehydration, weightloss, green or bloody diarrhea and death.

- **Treatment Options**: 1. Chelating agents. 2. Cathartics to aid in the passage of small particles. 3. A magnetized instrument to remove metals from the digestive tract. 4. Surgery or endoscopic removal to remove zinc particles that are visible radiographically.

**Lead in your Drinking Water**

**NEED A VET?**

**USA**: Find Your Local Avian Veterinarian

Information contained on this website is provided as general reference only. For application to specific circumstances, professional advice should be sought.

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