

Iron Toxicity in Dogs and Cats

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Toxin
Iron

Source

Nutritional supplements such as vitamin-mineral preparations with iron, injections of iron, and plant fertilizer.

General Information

Ingestion of excess iron causes two main problems. Iron has a direct corrosive effect on the lining of the stomach and small intestines. This may range from slight bleeding to perforation. Iron also is absorbed into the cells where it disrupts cell function and causes cell damage.

An anaphylactic type of reaction may be seen with injectable iron.

Toxic Dose

Varies depending on source and route of exposure.

Signs

Vomiting and diarrhea which may be bloody, and drowsiness. Symptoms may not occur for up to 6-12 hours after ingestion. This may be followed by a period of apparent recovery before relapse occurs. Other symptoms include CNS depression and liver and kidney failure. Iron passed in the urine will cause the urine to be dark.

Immediate Action

Induce vomiting and administer [Milk of Magnesia](#) (to precipitate the iron in the GI tract to decrease absorption). Egg, water, or milk may also be given. Seek veterinary attention.

Veterinary Care

General treatment: The induction of vomiting may be continued, gastric lavage is performed, and Milk of Magnesia is administered.

Supportive treatment: IV fluids, oxygen, and blood transfusions may be administered. Iron levels will be monitored for several days.

Specific treatment: Deferoxamine (Desferal) may be administered which chelates the iron. This chelation will cause a reddish brown discoloration of the urine. Vitamin C may be used with deferoxamine to enhance iron chelation, but should not be used without deferoxamine as it will increase the absorption of the iron by the body.

Prognosis

Variable