



Poison HOTLINE

Partnership between Iowa Health System and
University of Iowa Hospitals and Clinics

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Did you know

When deferoxamine (DFO) chelates iron, it forms a brownish-red complex. The iron-deferoxamine complex is excreted by the kidneys. When administering DFO, you can watch the urine for a pink-orange-red, or “vin rosé”, color indicating the excretion of the chelated iron complex.

HOWEVER, the urine color change is an **extremely** insensitive finding and clinical decisions should **not** be made based on either the presence or absence of this finding.

For questions regarding iron exposures and treatment with DFO, please call Iowa Statewide Poison Control Center at **1-800-222-1222**.

Iron

Iron is a dietary supplement used to treat certain types of anemia. Iron is available as plain iron tablets, in multivitamin formulations, and in some oral contraceptives. Most children’s vitamins contain 15-18 mg elemental iron per dose, while most adult doses contain 60-90 mg of elemental iron. Iron poisoning occurs most commonly as unintentional ingestions in young children.

The severity of an iron overdose depends on both the formulation and amount of iron ingested. Symptoms of an iron overdose follow a pattern of five phases. Understanding the clinical course is important, especially the latent stage which may lure a health care provider into a false sense of security and result in premature and inappropriate dismissal of a patient.

- Phase 1 Gastrointestinal (30 minutes to 2 hours post ingestion) Vomiting, hematemesis, abdominal pain, diarrhea. Severe ingestions may also have hypotension and shock at this phase.
- Phase 2 Latent (2 – 12 hours after Phase 1) Decreasing GI symptoms prior to the overt onset of systemic toxicity.
- Phase 3 Systemic Toxicity with Shock and Metabolic Acidosis (12-48 hrs).
- Phase 4 Liver Necrosis or Failure (2 – 4 days post ingestion)
- Phase 5 Gastrointestinal Scarring (days to weeks post ingestion)

Activated charcoal does NOT adsorb iron and is NOT INDICATED for iron ingestions. Whole bowel irrigation (WBI) may be of benefit in those patients who have ingested sustained-release preparations or have multiple iron tablets visualized on abdominal x-ray.

Obtain a serum iron level upon presentation and every two (2) hours until peak level is noted. Also obtain serum electrolytes and CBC. An abdominal x-ray (KUB) may visualize regular iron tablets. Chewable vitamins with iron are unlikely to show up on a KUB.

Deferoxamine (DFO) can be used to chelate iron and should be used in patients exhibiting shock, hypotension, metabolic acidosis, altered mental status, or a serum iron level > 500 mcg/dL. DFO is administered intravenously, starting at 5 mg/kg/hr and titrated upwards based on the patient’s blood pressure, with a goal of 15 mg/kg/hr. Boluses of DFO and high rates have resulted in hypotension and anaphylactoid-type reactions.

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1-800-222-1222

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