

Iron Poisoning

Pills containing iron are commonly used to treat certain kinds of anemia. Iron also is included in many multiple vitamin supplements. People—especially toddlers—who overdose on these pills may develop iron poisoning. Because many households contain multiple vitamin supplements for adults that contain iron, iron overdose is common. However, overdose of iron-containing vitamins, particularly children's chewable vitamins, usually does not involve enough iron to cause serious poisoning. Overdose of pure iron supplements, however, may cause serious iron poisoning.

Serious iron poisoning is uncommon. It first irritates the stomach and digestive tract. Within hours, iron poisons the cells, interfering with their internal chemical reactions. Within days, the liver can be damaged. Weeks after recovery, the stomach, digestive tract, and liver can develop scars due to the previous irritation.

Symptoms

Serious iron poisoning usually causes symptoms within 6 hours of the overdose. The symptoms of iron poisoning typically occur in four stages. In stage 1 (within 6 hours after the overdose), symptoms include vomiting, diarrhea, abdominal pain, drowsiness, unconsciousness, and seizures. The stomach may bleed. If poisoning is very serious, rapid breathing, a rapid heart rate, and low blood pressure may develop. In stage 2 (8 to 24 hours after the overdose), the person's condition can appear to improve. In stage 3 (6 to 48 hours after the overdose), very low blood pressure (shock), bleeding, jaundice, liver failure, seizures, confusion, and coma can develop. Sugar levels in the blood can decrease. In stage 4 (2 to 6 weeks after the overdose), the stomach or intestines can become blocked by constricting scars. Scarring in either organ can cause crampy abdominal pain and vomiting. Severe scarring of the liver (cirrhosis) (see [Fatty Liver, Cirrhosis, and Related Disorders: Cirrhosis](#)) can develop later.

Diagnosis and Treatment

The diagnosis of iron poisoning is based on the person's history, symptoms, and the amount of iron in the blood. If many pills have been swallowed, they can sometimes be seen on x-rays of the stomach or intestines.

People with symptoms or high levels of iron in the blood need hospitalization. To remove any iron remaining in the stomach, gastric lavage may be necessary. However, a large amount of iron can remain in the stomach even after gastric lavage or vomiting. A special saltwater solution may be given by mouth or through a stomach tube to wash the contents of the stomach and intestines

(whole bowel irrigation), although its effectiveness is unclear. Injections of deferoxamineSome Trade Names

DEFERAL

, which binds iron in the blood, are given.