

## Iron (Ferrous Sulfate)

Iron (Ferrous Sulfate) is an inexpensive drug of choice for treating and preventing iron deficiency anemia. The administration of iron promotes hemoglobin production necessary for carrying oxygen throughout the body. Ferrous sulfate is indicated for treating iron deficiency anemia. Side effects include constipation, diarrhea, nausea, vomiting, and dark green or black colored stools. Instruct the patient to take this medication with food and avoid concurrent antacid use. Teach the patient about measures to prevent liquid preparations from staining teeth and to keep this medication out of reach of children. This medication may worsen GI symptoms and should be used with caution in patients with peptic ulcers, ulcerative colitis, and regional enteritis.



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### Mechanism

#### Ferrous Salts

##### Ferret Salt-shaker

Iron is an essential component of hemoglobin, myoglobin, and certain enzymes. The bone marrow utilizes iron to make hemoglobin, the liver stores iron as ferritin, and the muscles incorporate iron to produce myoglobin. The body requires iron to transport oxygen throughout the body.

### Indications

#### Anemia

##### Anemone

A deficiency in iron absorption leads to a decreased production of hemoglobin. Since hemoglobin is responsible for carrying oxygen throughout the body, the patient develops anemia and presents with fatigue and pallor. This drug also prevents iron deficiency associated with pregnancy or chronic blood loss. With iron deficiency anemia, the RBCs are microcytic and hypochromic.

### Side Effects

#### GI Distress

##### GI shootng flare-gun

The body's level of iron is regulated by intestinal absorption. Ferrous sulfate may cause GI distress such as heartburn (pyrosis), constipation, diarrhea, and bloating. These symptoms are dose-dependent and typically decrease with continued drug therapy. Patients experiencing constipation may benefit from a stool softener or laxative.

#### Nausea and Vomiting

##### Vomiting

Administering ferrous sulfate increases the body's amount of iron and subsequently affects the GI system's ability to absorb the mineral. Symptoms of GI distress caused by iron preparations include nausea and vomiting. Inform the patient that continued therapy often leads to decreased symptoms.

## Dark Stools

### Dark Stool

Although ferrous sulfate may cause dark green or black-colored stools, inform the patient that this is a harmless side effect and not indicative of bleeding.

## Considerations

### Take Between Meals

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Iron is best absorbed on an empty stomach. Certain dietary components may chelate iron and prevent it from being absorbed. Patients should thus be instructed not to take this medication with food. However, this will increase the incidence of GI upset. If patients cannot tolerate the increased GI side effects, they can be instructed to take iron with meals to increase medication adherence.

### Liquid can Stain Teeth

#### Liquid Staining Teeth

Liquid preparations of ferrous sulfate may stain teeth. Instruct the patient to dilute liquid iron preparations with juice or water, administer through a straw, and rinse the mouth after taking the medication.

### Keep out of Reach from Children

#### Out of Reach of Child

Since excessive amounts of iron is toxic, accidental or intentional overdose leads to poisoning. Iron preparations should be stored in childproof containers and kept out of reach of children.

### Caution with GI Disorders

#### Caution at GI with Disorder

Since iron preparations cause GI effects, this medication may worsen symptoms associated with peptic ulcers, ulcerative colitis, and regional enteritis. Patients with these conditions should use this medication cautiously and avoid oral iron preparations.

### Avoid Antacids

#### Avoid-sign Ant-acid

Antacids decrease the body's ability to absorb iron and should not be taken with ferrous sulfate.