

Indications:

Ferrous sulfate is a form of iron that can be taken by mouth. It helps the body to make more hemoglobin and so treat the anemia. It can also be used to prevent anemia in children who are at risk of it or, for example, before surgery. The available data suggest that iron supplementation increases the levels of hematologic indicators of iron sta tus and reduces the prevalence of iron deficiency anemia in low birth weight/ premature infants.

Some studies suggest that iron deficiency, even at levels too low to cause anemia, can cause a lack of energy. A few studies have found that taking iron supplements improved sports performance in those who had slightly low levels of iron.

Pharmacological Category: Iron Products

Pregnancy:

Pregnancy category: Not studied

Lactation:

Drug is excreted in breast milk

Side effects:

Common adverse effects are as follow: Constipation, Contact irritation,- Di arrhea, Dark stools, GI hemorrhage (rare), GI irritation

GI obstruction (wax matrix products; rare), GI perforation (rare), Nausea, Stomach pain, Superficial tooth discoloration (oral solutions), Urine discoloration, Vomiting

Contraindications:

Hypersensitivity, Hemochromatosis, hemolytic anemia

Interactions:

Antacids, Chloramphenicol, Cimeti dine, Levodopa, Methyldopa, Penicil lamine, Cinoxacin, Ciprofloxacin, Demeclocycline, Doxycycline, Enoxacin, Levofloxacin, Lomefloxacin, Methacycline, Minocycline, Nalidixic acid, Norfloxacin, Ofloxacin, Oxytetracycline, Sparfloxacin, Tetracycline Dose:

Adult:

Recommended Daily Allowance (Elemental Iron)		
Category	19-50 years	>50 years
Males	8 mg/day	8 mg/day
Females	18 mg/day	8 mg/day
Pregnant females	27 mg/day	-
Lactating females	9 mg/day	-

Pediatric:

Recommended Daily Allowance (Elemental Iron)		
Below 13 years	>13 years	
0-6 months: 0.27 mg/day	Males: 11 mg/day	
6-12 months: 11 mg/day	Females: 15 mg/day	
1-3 years: 7 mg/day	Pregnant females: 27 mg/day	
3-8 years: 10 mg/day	Lactating females: 10 mg/day	
8-13 years: 8 mg/day		

 $\hfill\Box$ Treatment of Iron Deficiency Anemia in pediatrics

Note: Treatment expressed as elemental iron

3-6 mg Fe/kg/day PO divided q8hr

 $\hfill \square$ Prophylaxis expressed as elemental iron in pediatrics

4 months and older receiving human milk at only nutritional source or >50% as source of murition: Img/kdq PO
6 months to 2 years in areas where anemia prevalence is -40% and iron fortified food not available 2 mg/kg/day
2-5 years in areas where anemia prevalence >40%: 2 mg/kg/day PO, not to exceed
30 mg/day
>5 years in areas where anemia prevalence >40%: 30 mg/day with folic acid
Adolescents in areas where anemia prevalence >40%: 60 mg/day with folic acid

If ferrous sulfate is being used to prevent anemia, it is usually given once each day. This can be in the morning OR the evening.

If ferrous sulfate is being used to treat anemia, it is usually given twice or three times each day.

- ☐ Twice a day: this should be once in the morning and once in the evening. Ideally, these times are 10–12 hours apart, for example sometime between 7 and 8 am, and between 7 and 8 pm.
- ☐ Three times a day: this should be once in the morning, once in the ear ly afternoon and once in the evening. Ideally, these times are at least 6 hours apart, for example 8 am, 2 pm and 8 pm

Administration:

- ☐ Accidental overdose of drugs that have iron in them is a leading cause of deadly poisoning in children younger than 6 years of age. Keep away from children.
- ☐ This medicine works better if you take it on an empty stomach. You may take this medicine with food if it caus es an upset stomach. Some foods like eggs, whole grain breads, cereal, dairy products, coffee, and tea may make this medicine (ferrous sulfate drops) not work as well.
- ☐ Take a missed dose as soon as you think about it. If it is close to the time for your next dose, skip the missed dose and go back to your normal time. Do not take 2 doses at the same time or extra doses.
- ☐ Absorption is improved if it is ingested with a source of vitamin C, such as orange juice.

Dosage Form:

Oral drop

Each ml contains 125 mg ferrous sul fate.7H2O (eq to 25 mg Fe2+) Packaging: 15 ml bottle

References:

- 1) Lexicomp,s Drug Reference Handbooks, American Pharmacists Association, 20th edition, pages 711-712
- 2) British National Formulary 68, September 2014- March 2015, page 647
- 3) https://www.drugs.com/cdi/ferrous-sulfate-drops.html
- 4) http://reference.medscape.com/drug/slow-fe-fer-in-sol-ferrous-

sulfate-342161

- 5) http://www.medicinesforchil dren.org.uk/ferrous-sulfate-iron-deficiency-anaemia
- 6) American Family Physician, Prevention of Iron Deficiency in Infants and Toddlers, http://www.aafp.org/ afp/2002/1001/p1217.html
- 7) https://www.everydayhealth.com/drugs/ferrous-sulfate
- 8) Benefits of Iron supplementation for low birth weight in fants: A systematic review, https://bmcpediatr.biomedcentral.com/articles/10.1186/1471-2431-12-99
- 9) University of Maryland Med ical Center, http://www.umm.edu/health/medical/altmed/supplement/iron