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Iron Deficiency Anemia

Iron deficiency anemia is the most common cause for anemia (low red blood cell count) in infants and children. Your child will be screened at 9 Months and 2 year well child check-ups. The lab we commonly follow is called a “hemoglobin” test. If anemia is detected at these visits, the initial treatment plan is iron supplementation. This will help treat most mild to moderate cases of anemia, but it takes about 6 months to see a measureable increase in the child’s hemoglobin level. If a child is not responding well, the supplemental dose may be too low, the child may not be absorbing the iron well, or the patient may be non-compliant. Common problems administering the iron include constipation and poor tolerance for the taste of the preparation. Absorption may be improved by avoiding milk and large meals with the iron dose. Instead, give with orange juice or vitamin C supplement to increase absorption. Nova Ferrum is the best tasting brand we have discovered. It can be found at Amazon.com if your local pharmacy doesn’t carry the product.

Your child’s dose and frequency:

Follow up hemoglobin testing:

Iron-Deficiency Anemia

Iron-deficiency anemia is a relatively common problem, usually occurring when your child's diet does not provide enough iron. It is most common in children ages 1 to 2. Iron-deficiency anemia can also occur in adolescents—especially girls—because of additional blood loss during their periods. In most cases, the anemia clears up quickly once your child is given extra iron.

What is iron-deficiency anemia?

Our bodies need iron to produce a substance called hemoglobin, which allows red blood cells to carry oxygen. If iron levels aren't high enough, the body can't make enough hemoglobin. Anemia means low levels of red blood cells or hemoglobin. When the problem is caused by a lack of iron, it's called iron-deficiency anemia.

The most common cause is not enough iron in the diet. Children ages 1 to 2 are most commonly affected. In this age group, it can be hard to provide enough iron through a good diet. Losing blood from our bodies can also cause iron-deficiency anemia, as the body needs extra iron to make up for the blood loss. This may occur in teenage girls whose menstrual periods are heavy or last a long time. It can also occur in children with digestive problems, if they are losing blood in their stools.

Some children and teens may have low iron levels but not low enough to cause iron-deficiency anemia. They still may need treatment. Whatever the cause, your child's red blood cell and hemoglobin levels should return to normal soon after more iron is added to the diet. If not, further tests and treatment may be needed.

What does it look like?

- Iron-deficiency anemia may not cause any symptoms. It may be recognized during routine blood tests. Symptoms are usually present only when the hemoglobin level drops pretty low.
- Skin may appear pale (pallor).
- Your child may be easily tired or irritable. He or she may have difficulty concentrating or have a poor appetite.
- If the anemia is severe, your child may be very pale or be out of breath after just light activity.
- Even without anemia, low iron levels may have mild effects on attention and learning.

What causes iron-deficiency anemia?

- The most common cause is not enough iron in the diet. This is most common in infants and toddlers ages 9 to 18 months.
- Infants drinking large amounts of cow's milk (greater than 20 to 24 ounces per day) may be at increased risk. Infants who are fed only breast milk can also be at increased risk. Beginning at about 6 months of age, breast-fed babies should receive additional iron in the form of iron-rich foods or liquid iron if necessary.
- Risk is increased for premature infants, who have less iron in their bodies at birth. They also grow quickly and need more iron.
- In teens, prolonged or heavy menstrual periods may cause anemia.
- Rarely, unrecognized bleeding may cause anemia. This is most often related to problems in the digestive system.

What are some possible complications of iron-deficiency anemia?

After proper levels of iron are added to the diet, there are usually no further problems.

Can iron-deficiency anemia be prevented?

Make sure your child's diet contains enough iron:

- Breast-fed babies should receive extra iron starting at about 6 months of age.
- Bottle-fed babies should receive iron-fortified formula until 1 year of age.
- When your baby starts solid foods, give him or her iron-fortified cereals.
- Limit intake of cow's milk to less than 24 ounces per day.
- For older children, give foods that are high in iron. These include red meats, fish, egg yolks, beans, and leafy vegetables. If you don't feel your child is getting enough iron in the diet, it's reasonable to give an iron supplement or multivitamin. It's especially important to make sure your child gets enough iron during periods of rapid growth, during athletic training, or after the start of menstrual periods.

How is iron-deficiency anemia treated?

- Treatment includes iron supplements, usually given in drops (for infants), tablets, or pills. Your doctor can recommend the best iron dose for your infant or child. Your child's anemia should start to improve within a few days.
- We may recommend that your child continue taking iron for a few months. Iron and hemoglobin levels should be rechecked to make sure they are going up.

- *Very* rarely, children with severe anemia may need a blood transfusion.

When should I call your office?

Call our office if you are having trouble using iron supplements or increasing the amount of iron in your child's diet, as recommended.

Premier Pediatrics
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www.premierforkids.com



IRON RICH FOODS

Spinach may not give you superhuman strength to fight off villains like Popeye's nemesis Bluto, but this leafy green foods containing iron can help you fight a different type of enemy – iron-deficiency anemia.

Iron-deficiency anemia, the most common form of anemia, is a decrease in the number of red blood cells caused by iron. Without sufficient iron, your body can't produce enough hemoglobin, a substance in red blood cells that make for them to carry oxygen to the body's tissues. As a result, you may feel weak, tired, and irritable.

About 20% of women, 50% of pregnant women, and 3% of men do not have enough iron in their body. The solution, in many cases, is to consume more foods high in iron.

How Your Body Uses Iron In Food

When you eat food with iron, iron is absorbed into your body mainly through the upper part of your small intestine.

There are two forms of dietary iron: heme and nonheme. Heme iron is derived from hemoglobin. It is found in animal foods that originally contained hemoglobin, such as red meats, fish, and poultry. **Your body absorbs the most iron from heme sources.**

High-in Iron Food Sources

Very good sources of heme iron, with 3.5 milligrams or more per serving, include:

- 3 ounces of beef or chicken liver
- 3 ounces of clams or mollusks
- 3 ounces of oysters

Good sources of heme iron, with 2.1 milligrams or more per serving, include:

- 3 ounces of cooked beef
- 3 ounces of canned sardines, canned in oil
- 3 ounces of cooked turkey

Other sources of heme iron, with 0.7 milligrams or more per serving, include:

- 3 ounces of chicken
- 3 ounces of halibut, haddock, perch, salmon, or tuna
- 3 ounces of ham
- 3 ounces of veal

Iron in plant foods such as lentils and spinach is nonheme iron. This is the form of iron added to iron-enriched and iron fortified foods. Our bodies are less efficient at absorbing nonheme iron, but most dietary iron is nonheme iron.

Very good sources of nonheme iron, with 3.5 milligrams or more per serving, include:

- Breakfast cereals enriched with iron
- One cup of cooked beans
- One-half cup of tofu
- 1 ounce of pumpkin, sesame, or squash seeds

Good sources of nonheme iron, with 2.1 milligrams or more per serving include:

- One-half cup of canned lima beans, red kidney beans, chickpeas, or split peas
- One cup of dried apricots
- One medium baked potato
- One medium stalk of broccoli
- One cup of cooked enriched egg noodles
- One-fourth cup of wheat germ

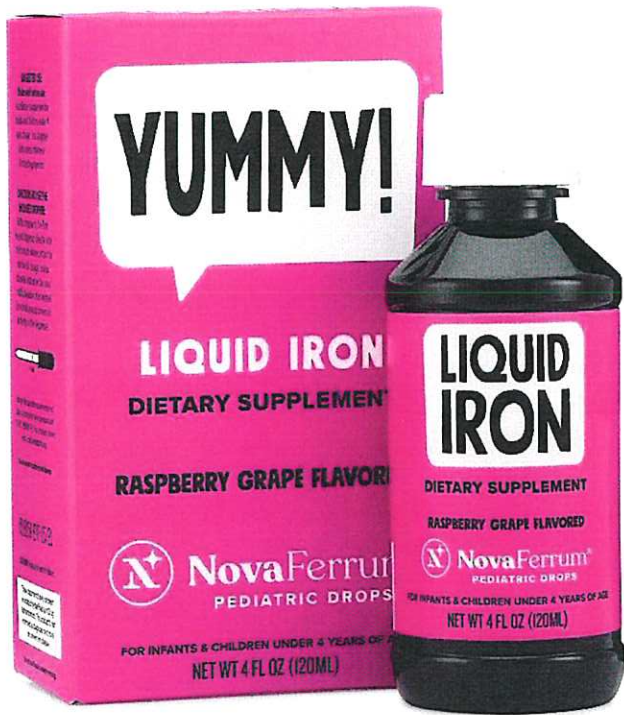
Other sources of nonheme iron, with 0.7 milligrams or more, include:

- 1 ounce of peanuts, pecans, walnuts, pistachios, roasted almonds, roasted cashews, or sunflower seeds
- One-half cup of dried seedless raisins, peaches, or prunes
- One cup of spinach
- One medium green pepper
- One cup of pasta
- One slice of bread, pumpernickel bagel, or bran muffin
- One cup of rice

How to Get More Iron From Your Food

Some foods can help your body absorb iron from iron-rich foods; others can hinder it. To absorb the most iron from what you eat, avoid drinking coffee or tea or consuming calcium-rich foods or drinks with meals containing iron-rich food. To improve your absorption of nonheme iron, eat it along with a good source of Vitamin C – such as orange juice, strawberries – or a food from the meat, fish, and poultry group.

If you have trouble getting iron from food sources, you may need an iron supplement. Speak to your PCP for the proper dosage first and follow instructions carefully. Because very little iron is excreted from the body, iron can build up in body tissues and organs when the normal storage sites – the liver, spleen and bone marrow – are full. Although toxicity from food sources is rare, deadly overdoses are possible when large doses of supplements are ingested all at once.



WHY PEDIATRICIANS AND PARENTS PREFER NOVAFERRUM

YUMMY! LIQUID IRON

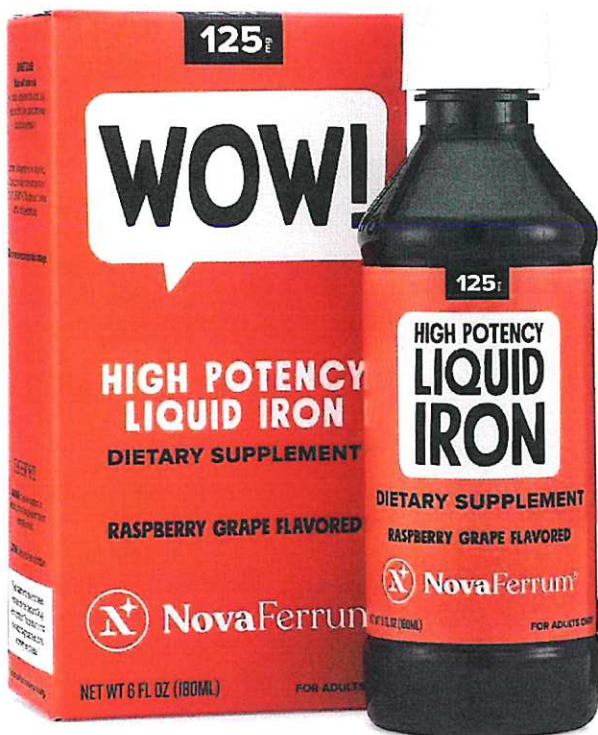
NovaFerrum

- 😊 Clinically Proven
- 😊 Sugar Free
- 😊 Vegan Verified
- 😊 No Synthetic Colors
- 😊 Naturally Sweetened
- 😊 Natural Fruit Flavors
- 😊 Certified Gluten Free
- 😊 Well Absorbed
- 😊 Kosher Certified
- 😊 Kids Love the Taste

OTHER BRANDS

- 😞 No Clinical Trial
- 😞 Sugar
- 😞 Not certified
- 😞 Artificial Colors
- 😞 Artificial Sweeteners
- 😞 Artificial flavors
- 😞 Not Certified
- 😞 Not Proven
- 😞 Not Certified
- 😞 Yuck!

1ml = 15mg	2.5ml = 37.5mg
1.5ml = 22.5mg	3ml = 45mg
2ml = 30mg	\$26 Amazon.com



Supplement Facts

Serving Size: 1 tsp. (5mL)
Servings Per Container: 36

Amount per 5 mL	% Daily Value
Vitamin D-3 100 IU (as Cholecalciferol In MCT)	25%
Elemental Iron 125mg (as polysaccharide iron complex)	695%

OTHER INGREDIENTS: WATER, NATURAL VEGETABLE GLYCERIN, CITRIC ACID, XANTHAN GUM, POTASSIUM SORBATE (PRESERVATIVE), NATURAL FLAVOR, SODIUM BENZOATE (PRESERVATIVE), MONK FRUIT EXTRACT.

1ml = 25mg	2.5ml = 62.5mg
1.5ml = 37.5mg	3ml = 75mg
2ml = 50mg	\$28 Amazon.com