

### QUICK GUIDE TO IRON DEFICIENCY

Kathleen Spadaro, CRNP

There are many causes of anemia; however, iron deficiency is the most common cause of anemia worldwide. Iron is an important building block of the red blood cell, which is used to carry oxygen around the body.

**Symptoms** of iron deficiency anemia include fatigue, headaches, dizziness, chest pain/palpitations, shortness of breath, paleness, certain cravings for ice, clay, certain foods/starches (pica), leg cramping, dry skin, spoon shaped nails (koilonychia), and difficulty swallowing.

**The first goal of treatment is to restore the excess iron storage in the body/bone marrow.** This is measured in the form of *Ferritin*. Then over time, this will raise the *hemoglobin* and in turn the anemia will eventually resolve.

Iron can be replaced orally with pills or with IV infusions. There are pros and cons to both.

#### ORAL IRON

- Your physician may prescribe a daily supplement called **Ferrous Sulfate** or **Ferrous fumarate**.
- INSTRUCTIONS- take oral iron on an **empty stomach** (1-2 hours before meals or at bedtime), once/twice/three times a day, depending on how your provider instructs you. If you are to take it two/three times a day, it is important to work up to that level slowly. Take each pill **with vitamin C**, such as drinking a small glass of orange juice, to enhance absorption. Avoid taking with food or other medications such as histamine-2 blockers, proton pump inhibitors or antacids, as these can decrease the absorption.
- PROs - more convenient to take at home and is less expensive
- CONs - it can take longer (3-6 months), to improve blood counts and therefore symptoms may not improve right away.
- SIDE EFFECTS – The most common are gastrointestinal:
  - Bloating, nausea, or abdominal pain can occur - Try to alleviate this by taking each dose with a little food, but understand this inhibits some absorption and may prolong the length of therapy.
  - Diarrhea or constipation can occur - Try to alleviate these symptoms with over the counter remedies; Imodium to slow down stool or alternatively use fiber, stool softeners (Colace) or stimulators (Miralax).
- NOTES - there are other/more costly oral options including slow release and enteric coated iron preparations that claim to cause less GI side effects, however the concern is they pass by the area of the small intestine where the iron is best absorbed. There is little evidence that they are effective.

#### IV IRON INFUSIONS

- Two IV doses, 7 days apart, then if needed, then infusions continue on a maintenance schedule depending on how often it is required.
- PROs - The benefits of the IV iron would be to raise the Ferritin (iron storage) faster (4-6 weeks) and therefore hopefully improve symptoms quicker.
- CONs - the time required to come to our office for the infusions (60 minutes), as well as the cost of treatment, if not covered by insurance or if you have a high deductible plan. Our care coordinators are happy to review your insurance and provide an estimate.
- SIDE EFFECTS - The common side effects are nausea and injection site pain or bruising. While most patients tolerate it well, the less common side effects of Injectafer include allergic reactions (itching, rash, hives, wheezing) or a temporary increase in blood pressure (facial redness, dizziness, nausea) for 30 minutes after infusion. You will be monitored by our nurses during this time period.

## **IRON RICH FOODS**

Try to also increase the amount of iron you eat. The average diet in the US contains 12 mg of iron per 2,000 calories. Foods high in iron include iron enriched cereals, lean beef, veal, beans, fish, chicken, egg yolks, liver, oysters, raisins, fortified breads/pasta, and green vegetables.

**The second goal of treatment is to identify the source of low iron and correct the underlying problem if possible. The following are common causes of low iron in adults.**

- Poor absorption - from previous gastric surgeries or inflammatory bowel disorders
- Blood loss - from ulcers related to frequent NSAIDs use, diverticulosis, ulcerative colitis, Crohn's disease, hemorrhoids, hookworms, or malignancy/cancer. **It is very important to also follow closely with a GI doctor for appropriate tests/procedures such as an EGD and colonoscopy.**
- Blood loss from surgery or heavy menses (the average adult losses 1mg of iron a day, however a woman with a heavy menstrual cycle can lose as much as 20 mg of iron per month)
- Frequent blood donations, pregnancy (causes a net loss of 500 mg of iron), or lactation

The diagnosis, treatment, and follow up of iron deficiency anemia are all important aspects of the care we provide on a daily basis to improve our patients overall health.

This article is intended to be informational. Please do not hesitate to ask questions about the material you have read and speak with your provider about any health issues you may be experiencing.