

A N E M I A

"Iron-deficiency anemia" means you do not have enough red blood cells, and the red blood cells do not have enough iron, to carry enough oxygen to all the cells in your body. Low oxygen can make you feel worn-out, weak, and "air hungry," and can make you look pale.

Anemia can be caused by not having enough blood cells (e.g., due to blood loss), or by not having enough iron (e.g. due to diet or absorption problems). (There are other kinds of anemia that are *not* related to low iron - e.g. from not enough vitamin B-12.)

To find out whether you have iron-deficiency anemia, we may take a blood sample and measure:

- Your hematocrit: how many red cells you have in your blood. With low iron, you can't make as many.
- Your hemoglobin: how red those cells are. Anemic cells don't carry as much oxygen and aren't as red.
- Your serum iron: how much iron is in your bloodstream.
- Your transferrin (also known as TIBC, total iron-binding capacity): a protein that carries iron in the bloodstream. Your body will try to make extra, to scoop up every bit of iron available.
- Your ferritin: how much iron your body stores away in your bone marrow. Likely to be low, if you are anemic.

T R E A T M E N T

150-200mg per day of "elemental iron," divided into 3 doses, for 6-8 months.

- Try taking a total of 450-600mg ferrous fumarate daily (150-200mg, three times daily),
- Or taking a total of 1250-1600mg ferrous gluconate daily (500mg, three times daily),
- Or taking a total of 750-1000mg ferrous sulfate daily (325mg, three times daily).
- Please take vitamin C (100-250mg) or a glass of citrus juice with each dose - and *not* with food.

An increase in the hemoglobin level of 1 point (gm per dL) should occur every two to three weeks on iron therapy. It may take up to four months for the iron stores in your bone marrow to return to normal, after the hemoglobin has corrected.

Note: Fancy, "natural," or expensive supplements are not necessarily better, for correcting anemia. (See below.) "Slow-release" forms are not absorbed as well as regular forms.

A B O U T D I E T

- Absorption of iron is helped by taking it with vitamin C (250mg vitamin C, or a glass of citrus juice).
- Iron is better absorbed *without* food - but this increases the likelihood of stomach upset.
- Stomach antacids and reflux medicines reduce iron absorption. If you need them, take them separately.
- Foods rich in tannic acid (e.g., black coffee, black or green tea), or in phytates (e.g., bran, sesame seeds), reduce iron absorption. Don't use them at the same time as iron supplements.
- Iron pills can be constipating. Stay well hydrated, and drink 1/2 cup of prune juice nightly while you are using iron supplements. Take a laxative or stool softener when needed.
- It is okay to also increase iron-rich foods in your diet: organic organ meats, whole grains, organic dried fruits, and acidic foods cooked in cast-iron pans (e.g., tomato-based sauces).
- Dark leafy greens contain iron, but their oxalic acid content can make it too hard to absorb iron, so they may not be the best source of iron.
- It is okay to also use iron-boosting herbal medicines: yellow dock root, nettles, alfalfa, dandelion, burdock root. (Note: Iron tinctures and homeopathic iron preparations do *not* contain elemental iron.)

H O W M U C H I R O N I S I N T H I S P I L L ?

To calculate how much elemental iron is in an iron supplement:

Ferrous fumarate = 33% elemental iron (i.e., 100mgs contain only 33mgs elemental iron)	Ferric ammonium citrate = 18% elemental iron
Ferrous gluconate = 12% elemental iron	Ferrous bisglycinate = 20% elemental iron
Ferrous sulfate = 20% elemental iron	Heme-iron polypeptide = 100% elemental iron
Ferrous sulfate, exsiccated = 32% elemental iron	Polysaccharide-iron complex = 100% elemental iron
	Carbonyl iron = 100% elemental iron

Natural iron supplements do *not* contain enough iron to treat anemia, on a practical basis:

Floradix liquid - 10 mg elemental iron per 2 tsp (would need 30-40 tsp per day, approx \$35/bottle)

Natrol liquid - 14.5 mg elemental iron per 4 tsp (would need 40+ tsp per day, approx \$20/bottle)

Angstrom iron - 10 mg elemental iron per tsp (would need 15-20 tsp per day, approx \$20-30/bottle)

Ortho Molecular Reacted iron - 29 mg elemental iron per capsule (5-7 capsules per day, approx \$12 for 60)

BiFera - 28 mg elemental iron per tablet (would need 5-7 tablets per day, approx \$20 for 30)