

Predonation Information on Iron Deficiency and Maintaining Iron Balance

Thank you for coming to donate blood.

We care about your health and want you to know that donating blood reduces iron stores in your body. In many people, this has no effect on their health. However, in some people, particularly younger women and frequent donors of either gender, blood donation may remove most of the body's iron stores. We want you to understand these issues more clearly.

What happens to me during a blood donation?

Red blood cells are red because of the way iron is carried in hemoglobin, a protein that brings oxygen to the body. Therefore, the removal of red blood cells during blood donation also removes iron from your body. The impact of this iron loss on your health varies among donors.

How does blood donation affect iron stored in my body?

Iron is needed to make new red blood cells to replace those you lose from donation. To make new red blood cells, your body either uses iron already stored in your body or uses iron that is in the food you eat. Many women have only a small amount of iron stored in their body, which is not enough to replace the red blood cells lost from even a single donation. Men have more iron stored in their body. However, men who donate blood often (more than two times per year) may also have low iron stores.

Does the blood center test for low iron stores in my body?

No, the blood center tests your hemoglobin but not your iron stores. Hemoglobin is a very poor predictor of iron stores. **You may have a normal amount of hemoglobin and be allowed to donate blood even though your body's iron stores are low.**

How may low iron stores affect me?

There are several possible symptoms associated with low iron stores. These include fatigue, decreased exercise capacity, and pica (a craving to chew things such as ice or chalk). In addition, having low iron stores may increase the possibility of having a low hemoglobin test, preventing blood donation.

What can I do to maintain my iron stores?

While eating a well-balanced diet is important for all donors, simply eating iron-rich foods *may not* replace all the iron lost from blood donation. Taking multivitamins with iron or iron supplements either prescribed or over the counter (from a drugstore) may help replace iron lost. Iron supplements vary in name and proportion of iron within the tablet/caplet. The most effective dose, type of iron supplement, and length of treatment are currently being studied. Current recommendations range from one typical multivitamin with iron (19 mg iron) to elemental iron caplets (45 mg iron) for six weeks to three months. Our physician in blood bank or pharmacist may be able to assist you in deciding what dose, type, and duration of iron supplement to choose.

Why doesn't a single big dose of iron replace what I lose during the donation?

Because people have a limit in iron absorption (ie, 2-4 mg/day), taking iron in larger doses for a shorter period may not lead to better absorption (and may result in more side effects). The overall goal is to replace, over 1 to 3 months, 200-250 mg of iron lost during donation.

Where can I get additional information?

Our team in blood bank is ready to answer your questions and in addition there are established internet sites with expertise that may be helpful for you, including www.anemia.org and www.bcshguidelines.com