

Predonation Information on Blood Donation and Iron

It is important for blood and platelet donors to understand how donation may affect the level of iron in their blood and in their bodies. Please read below to learn more detailed information.

What is hemoglobin?

Hemoglobin is a protein in your red blood cells that contains iron. It carries oxygen from your lungs to all the tissues in your body. Your hemoglobin measurement tells us whether or not you have enough red blood cells to donate safely and effectively.

What is iron?

Iron is an essential mineral found in our diet and is a part of hemoglobin. Your body needs iron to be able to make more red blood cells. Low iron may cause anemia (low blood counts).

What are iron stores?

A portion of your iron is found in red blood cells as hemoglobin. Another portion is stored in your body, mainly in bone marrow, spleen, and liver, and is referred to as your iron stores.

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

We measure the hemoglobin level in your blood by testing a small finger-stick sample as part of our routine health assessment process. This is not a direct test of your body's iron stores. You may have enough hemoglobin to donate blood even though your body's iron stores are low.

What does it mean when your hemoglobin is too low to donate?

The FDA has set minimum acceptable hemoglobin levels (12.5 for females and 13.0 for males) to make sure donors have enough red blood cells for both themselves and the patients they wish to help. If your hemoglobin falls below these standards, you are asked not to donate for at least the next 24 hours. We encourage you to increase your intake of iron rich foods and, when the time is right for you, try to donate again. The majority of donors return and donate successfully.

How does blood donation affect iron stored in my body?

Iron is needed to make new red blood cells to replace those lost by donation. To make new red blood cells, your body either uses the iron that is already stored in your body or the iron that is in the food you eat. Each blood donation removes some iron from your body. Most people begin making red blood cells immediately after donation and have no problem replacing what is lost during the process. However, some people, for example those who donate blood frequently, or who also have blood loss for other reasons, such as pre-menopausal women, may lose sufficient amounts of blood over time to deplete their body's stores of iron.

How may low iron stores affect me?

Low iron stores may impair the ability of the body to make red blood cells, and result in anemia (low blood count). Sometimes there are other 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?

Eating a well balanced diet, complete with iron rich foods, is a smart way to support your body's iron needs. For some people, however, it may be necessary to do more. You may wish to consult your physician or pharmacist to discuss multivitamin or iron supplements. Because only small amounts of iron are absorbed from the diet each day, these iron supplements are usually taken in small amounts over a period of several weeks or months.

Where can I get additional information?

National Institutes of Health: Dietary Supplement Fact Sheet

Mayo Clinic: Iron Supplements

Centers for Disease Control : Nutrition for everyone: Iron and Iron Deficiency