

# Iron Deficiency

***Thank you for coming to donate blood today.***

We care about your health and want you to know that donating blood may reduce the 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 Donor Room test for low iron stores in my body?**

No, the Donor Room tests your hemoglobin or hematocrit but not your iron stores. Hemoglobin and hematocrit are very poor predictors of iron stores. **You may have a normal hemoglobin or hematocrit and be eligible 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 may include fatigue, decreased exercise capacity, dizziness and shortness of breath. In addition, having low iron stores may increase the possibility of having a low hemoglobin or hematocrit 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.

## **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). Side effects are less likely to occur when taking multivitamins that contain iron or when taking a low-dose (~19mg) iron supplement. 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?**

Talk to your healthcare provider before starting any new iron supplement. Your healthcare provider may be able to assist you in deciding what dose, type, and duration of iron supplement to choose.