

# Understanding Hemoglobin: The Color Red

**Y**our red blood cells contain hemoglobin, a molecule composed of protein and iron, which carries oxygen to the body tissues and gives blood its red color. We determine the amount of hemoglobin in your red blood cells every time you come in to donate blood.

You probably know this best as the “finger stick” we do during your health check before you donate.

## What if your hemoglobin is low?

If your hemoglobin value is less than our required level, you will be deferred (asked not to donate) until you can build it up. Keep in mind that you may be deferred even if your hemoglobin is in the normal range. Giving a pint of blood requires starting at a high normal level so that your blood count will be in the normal range after you have donated.

A low hemoglobin value doesn't mean you're sick or anemic. In the rare cases where hemoglobin count is abnormally low, donors are advised to consult their personal physician.

## What causes low hemoglobin?

The most frequent cause of low hemoglobin is eating an iron-poor diet over long periods of time.

You may also “lose” iron for many different reasons: gastrointestinal disease; heavy menstrual flow; and surgery. Other reasons include lack of sleep, stress and dieting.

## Vitamin C

Eating foods that are high in Vitamin C with these foods daily helps your body to absorb and use the iron. Foods high in Vitamin C include:

- Citrus fruits and drinks
- Fresh fruits
- Fresh or lightly cooked vegetables

## What can you do?

You can help build up your hemoglobin level by eating foods which contain iron and by eating them with foods that contain Vitamin C, which enhances your body's ability to absorb iron.

Foods that help build iron:

### Meats

- Lean beef, lamb, pork, veal
- Liver (except fish liver)
- Chicken and turkey

### Seafoods

- Crab
- Fish fillets and steaks
- Oysters, raw clams
- Sardines
- Shrimp

### Fruits

- Apricots
- All berries
- Dried fruits
- Grapes and raisins
- Grapefruits
- Oranges
- Plums
- Prunes
- Watermelon

### Vegetables

- Bean sprouts
- Beets
- Broccoli
- Brussel sprouts
- Cabbage
- Green beans
- Greens
- Kale
- Lima beans
- Peas
- Potatoes
- Tofu
- Tomato juice

### Whole grains

- Bran
- Breads
- Brown rice
- Enriched cereals
- Enriched pastas
- Soy bean flour
- Tortillas
- Wheat germ

Also, certain foods decrease your body's ability to absorb iron. They include:

- Coffee and tea
- Egg yolks
- Antacids
- Excessive amounts of whole grain products

## When can you give blood again?

You can give blood again when your hemoglobin level increases.

If you have any questions about your deferral for a low hemoglobin level, please feel free to ask us today before you leave.

If you are on Oahu, you can call us at **845-9966** to speak to one of our nurses. Neighbor Island donors can give us a call toll-free at **1-800-372-9966**.



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