

You have just had a blood test that indicated that your HEMOGLOBIN was low or borderline. Here are some things you should know in order to increase or maintain a sufficient hemoglobin level to donate blood.

FACTS

1. If you have been deferred today as a blood donor because of low hemoglobin level, it does not mean you are anemic or cannot donate in the future. In fact, in most cases, a simple change in your diet is all that is needed to increase your hemoglobin level.
2. Iron, when combined with certain proteins, becomes hemoglobin in red blood cells.
3. Iron is a vital mineral used to generate energy.
4. Every human cell contains iron.
5. 80 percent of the iron found in the body is contained in hemoglobin.
6. Women are more prone to having low iron since they experience blood loss during menstruation, and they often eat less than men.
7. Women need more iron than men particularly during childbearing years.
8. People who donate blood should pay special attention to their diets in order to maintain iron levels.
9. It is not only necessary to eat food rich in iron, it is also necessary to eat in a way which maximizes iron absorption.
10. Iron supplements are not as well absorbed as iron from food, thus higher doses are usually necessary.

WHAT IS ANEMIA?

Anemia is a blood disorder that occurs when a person's red blood cell (RBC) level or hemoglobin level is below the normal range. There are many types and causes of anemia. Listed below are some of the most common types of anemia. Other causes of anemia include blood loss, pregnancy, stomach ulcers, chronic diseases, bone marrow infections and cancer. Symptoms of anemia may include weakness, fatigue and pale skin, gums, skin creases and nail beds.

A doctor must review a patient's symptoms and examine a patient before diagnosing him or her with anemia. A complete blood count is needed to confirm anemia and measure its severity. Specific blood tests may be necessary to evaluate the type of anemia.

The most common form of anemia is caused by **blood loss**. Women most often develop iron deficiency anemia from the loss of blood during their menstrual periods and from repeated pregnancies. This type of anemia may also develop as a result of internal bleeding in the stomach (as with ulcers) or in the intestine (as with colon cancer).

Iron deficiency anemia is caused by a lack of iron in the diet. Pregnant women may have this form of anemia because the growing fetus draws upon the mother's iron for the development of red blood cells and other tissues. For those suffering from iron deficiency anemia, a physician may prescribe a change in diet to include foods rich in iron or taking iron supplements. It may also be suggested that vitamin C be taken to help the body absorb more iron. You are not supposed to take antacid or drink or eat dairy products while you are taking iron supplements because they prevent the body from absorbing iron.

Hemolytic anemia occurs when red blood cells are destroyed or damaged by a stimulus such as an infection, drugs or inherited conditions.

Vitamin B-12 deficiency anemia results from an inability of the stomach or intestines to absorb vitamin B-12 and is usually treated with vitamin supplementation in an injectable form. Diet, an immune system disorder, gastrointestinal illness, certain medications and some

inherited disorders may also cause vitamin B-12 deficiency.

Folic acid deficiency anemia is due to a lack of folic acid in the diet and is similar to B-12 deficiency anemia, but there is no damage to specific nerves. However, it can cause depression. It is treated with a foliate supplement. This anemia is common in alcoholics, pregnant women, people with malabsorption problems and people using some daily medications, such as phenytoin, sulfasalazine and possibly oral contraceptives.

Among several types of anemia caused by **inherited abnormalities** of RBCs, the most common are sickle cell anemia and thalassemia. Inherited abnormalities can be treated by blood transfusions, but due to the risks involved physicians try to treat the symptoms first.

Anemia caused by ongoing (chronic) disease is common in people who have cancer, leukemia, ongoing infections, kidney disease and inflammatory diseases, such as rheumatoid arthritis. Chronic diseases usually cause a mild case of anemia and a medication to increase red blood cell production may be prescribed.

Because of the wide variety of causes and treatment, the length of effects will vary depending on the cause. Your doctor will check your blood count periodically to monitor the effect of your treatment. Be sure to follow your doctor's instructions and take your medication as prescribed.

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POSSIBLE FOOD CHOICES

Oysters	Liverwurst
Beef	Fish
Liver	Clams
Pork	Turkey
Chicken	Sardines
Shrimp	
Braunschweiger sausage	
Tofu	Parsley, chopped fresh
Spinach	Sauerkraut, canned
Turnip greens	Broccoli
Collards	
Raisins	Dates
Apricots, dried	Peaches, dried
Prune juice	
Lima beans	Black eyed peas
Navy beans	Green peas
Soybeans	Green beans
Kidney beans	
Iron-fortified bread & cereals	Whole grains

VITAMIN C SOURCES FOR IRON ABSORPTION

Grapefruit	Green pepper
Oranges	Cabbage
Greens	Broccoli
Cantaloupe	Cauliflower
Strawberries	Vitamin C fortified juices
Watermelon	
Tomatoes	

WAYS TO INCREASE HEMOGLOBIN (hgb)

Eat several servings of iron rich foods daily in meals and snacks.

Eat foods rich in vitamin C at the same time you eat foods rich in iron. Vitamin C helps iron absorption.

Prepare food by cooking slowly in iron cookware. Contact with iron increases iron in food.

Eat enriched or fortified food such as breads and cereals.

Avoid consuming tea, coffee, soy, fiber and nuts during and after meals or snacks with iron-rich foods since these foods reduce iron absorption.

IRON-RICH FOODS

Meats, fish and poultry provide about a third of the iron in the average diet.

Red meat, brown legume's (beans and peas), dark green leafy vegetables and dried fruit make the greatest contribution of iron to the diet.

Whole grain or enriched breads and cereal provide about a third of the iron in the average diet.

Sources: Whitney et al. Understanding Normal & Clinical Nutrition; Standfield's Nutrition and Diet Therapy; and "What Does a Low Hemoglobin Level Mean?" from Florida Georgia Blood Alliance

Thank you for taking the time to visit us today. We hope to see you again in a couple of weeks.



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Low Hemoglobin

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