

Kidney Disease and Anemia

What is anemia?

Anemia is a condition in which your blood does not have enough red blood cells. Red blood cells carry oxygen to your body organs to help them use energy. If you don't have enough red blood cells, your organs may not work as well as they should. This may make you look pale and feel tired, or you may not have any noticeable symptoms right away.

Why do people with kidney disease get anemia?

Anemia is a common problem among people with kidney disease. Healthy kidneys make a hormone called **EPO** (erythropoietin) that helps your bone marrow make red blood cells. When you have kidney disease, your kidneys don't make enough EPO. This causes your red blood cell count to decrease and makes you more likely to get anemia.

People with kidney disease can also get anemia from other causes. These include blood loss, and low levels of iron or folic acid.

What are the symptoms?

Anemia begins gradually, and at first you may not realize you have it. The symptoms you experience will depend on how severe your anemia and kidney disease are. Anemia can cause you to:

- Have low energy and feel tired, weak, dizzy, irritable, depressed, or have trouble concentrating.
- Have physical symptoms such as pale skin, brittle nails, shortness of breath, chest pain, cold hands or feet, or an irregular heartbeat.
- Want to eat unusual things such as ice, paper, dirt, clay, or pure starch.



What if it goes untreated?

If your anemia goes untreated, it can cause serious complications. When you don't have enough red blood cells, your heart has to work harder. In fact, your heart is working harder even before you have noticeable symptoms. This extra work can lead to a heart problem called LVH (left ventricular hypertrophy), which can cause hospitalization, and sometimes even death. Treating your anemia right away is essential.

How does my doctor test for it?

Your doctor will do a blood test called a **complete blood count (CBC)**. This test determines the proportion of red blood cells and other substances in your blood. If your blood does not have enough red blood cells, you have anemia.

Your doctor may also perform other tests to make sure kidney disease is the cause of your anemia. In some cases, iron deficiency can be all or part of the cause. Understanding the cause of your anemia will help your doctor provide the best treatment.

How is it treated?

Your treatment will depend on the cause of your anemia. If kidney disease is the cause, you may be treated with:

- **Extra iron.** You may be given iron as a pill, or directly into your vein through an IV.
- ESAs. ESAs (erythropoiesis-stimulating agents) are medications that act like EPO and help your body produce more red blood cells. This medication is usually given as an injection. If you're receiving an ESA medication, your doctor will check your iron level regularly.
- Monitoring. While you're receiving treatment for anemia, it's important for your doctor to monitor the levels of different substances in your blood. Your treatment will need to be adjusted from time to time to keep your blood levels in balance.

Healthy nutrition for your kidneys

Eating well promotes healthier kidneys:

- Eat healthy foods. Foods that are high in iron, Vitamin B12, and folic acid can be especially helpful. These include red meat, leafy greens, and whole-grain breads.
- Eat the right amount of protein. Protein helps build muscle, repair tissue, and fight infections. Include 3-ounce portions of lean, low-salt cuts of meat and fish in your diet.
- **Get your vitamins.** Talk with your healthcare provider about whether you should take a renal multivitamin to help ensure that you get enough folic acid, vitamin C, and B vitamins.
- Maintain a healthy body weight. In chronic kidney disease, to stay healthy some people need to lose weight, while others need to gain weight. A dietitian can help you with either weight gain or weight loss, while helping you stay within your other diet guidelines (see below).

Help from a registered dietitian (RD)

Talk with your healthcare provider about whether seeing a registered dietitian would be helpful for you.

The amount of protein, calories, and other nutrients you need may change as the health of your kidney changes. Your doctor can refer you to a registered dietitian who can recommend foods based on the current condition of your kidneys. A dietitian can also help you create an eating plan based on your diet restrictions and what you like to eat.



intermountainhealthcare.org/nutrition

