

Anemia and Chronic Kidney Disease



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What is Anemia?

Red cells are the most common cells in your blood. The red cells carry oxygen from the lungs to the body's tissues where it is used as energy. Anemia means that the red cells in the blood are at a low level. Hemoglobin is a measure of the total red cell content of blood.

Normal hemoglobin levels are different in men and women. Levels below 120 g/L in healthy women and below 130 g/L in healthy men are considered low and could mean you have anemia. The target hemoglobin level for people with chronic kidney disease is 100 – 110 g/L. Speak to your doctor about the target that's right for you.



Model(s) are a depiction of people with kidney disease and anemia.

How Do You Know If You Have Anemia?

The effects of anemia depend on how severe it is. As anemia becomes severe, it may lead to low energy, tiredness, shortness of breath, and sometimes, increased sensitivity to cold. The only real way to know if you have anemia is to have a blood test. The blood test will check your red blood cells and your hemoglobin.

What Is the Link Between Anemia and Chronic Kidney Disease?

Most people in later stages of kidney disease (Stage 4-5) develop anemia. This is because the kidneys normally make the chemical messenger (hormone), called erythropoietin (or EPO for short). EPO tells the bone marrow to make more red blood cells. When the kidneys are not working well, they don't produce enough EPO so the bone marrow does not get the message to make red blood cells. Over time, there are fewer blood cells produced and people become anemic.

What Treatments Are Available for Anemia?

If you think you might have anemia, see your doctor. Your treatment will depend on the exact cause of your anemia. Treatment options include:

Dietary Changes

A diet low in essential vitamins and minerals such as iron, Vitamin B12, or folic acid may contribute to anemia.

Each person has different nutritional needs based on their age, medical history, and kidney function. A registered dietitian will work with you to design an individual daily eating plan that's right for you.

Vitamin or Mineral Supplements

Your doctor may recommend vitamin or mineral supplements. The most common supplement is iron. Iron deficiency (shortage) can be treated with pills or by an injection into a vein (intravenous, or IV). Vitamin B12 deficiency can be treated with pills or by an injection into a muscle (intramuscular, or IM). Extra folic acid can be taken in pill form.

