



Anemia in Kidney Disease

This fact sheet is for people with late stage kidney disease or kidney failure.

▶ What is anemia?

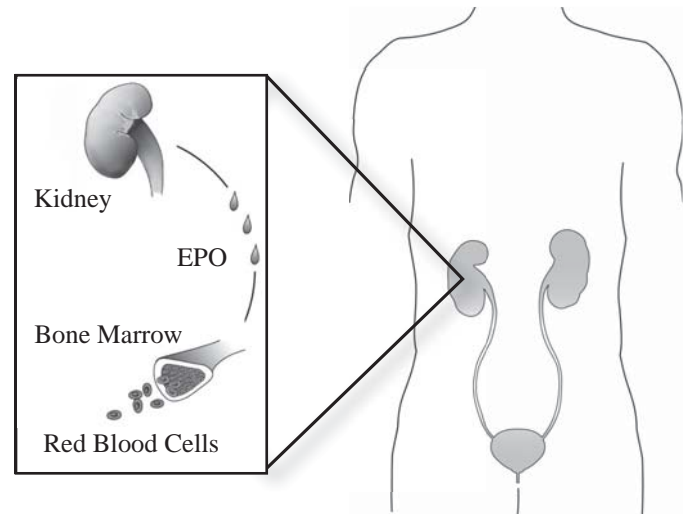
Anemia (ah-nee-mee-uh) is when your body does not have enough healthy red blood cells.

Your bone marrow makes red blood cells. Red blood cells carry oxygen to all of your organs and tissues. If you do not have enough red blood cells, your organs and tissues may not get enough oxygen. This can make you feel weak and tired.

▶ What does anemia have to do with kidney failure?

Anemia can be caused by many things. In people with kidney disease, the most common cause of anemia is not having enough of a hormone called erythropoietin (EPO).

- Healthy kidneys make EPO. EPO tells your bone marrow to make red blood cells.
- When your kidneys are not working well, they may not make enough EPO. Without enough EPO, your bone marrow will not make enough red blood cells.
- This leads to anemia.



But anemia can be caused by other things, too:

- Not enough iron
- Not enough of some vitamins
- Poor diet
- Losing too much blood
- Some medicines
- Some immune or blood diseases (like lupus, leukemia or HIV)

▶ What are the symptoms?

Anemia often has no symptoms. The only way to be sure if you have anemia is to get tested. If you do have symptoms, they might include:

- Tiredness
- Weakness
- Shortness of breath
- Rapid heartbeat
- Dizziness
- Headaches
- Loss of appetite
- Trouble sleeping

▶ How will I know if I have anemia?

Your doctor will test your blood's hemoglobin.

Hemoglobin is a protein in red blood cells. It might be listed on your lab results as Hb.

| Normal Hemoglobin (Hb) Results | |
|--------------------------------|-------------------|
| Men | More than 13 g/dL |
| Women | More than 12 g/dL |

▶ How is anemia treated?

If your anemia is caused by kidney disease, your doctor may prescribe erythropoietin stimulating agent (ESA) treatments. This is a man-made version of the EPO hormone that healthy kidneys make. The ESA treatments will signal your bone marrow to make more red blood cells.

Keep in mind...

Not all people with anemia will need ESA treatments.

Your doctor might also suggest that you take iron supplements and change your diet. This is to make sure that your body has enough of the vitamins and minerals it needs to make red blood cells.

If your anemia is caused by something other than kidney disease, your doctor may prescribe another kind of treatment.



Talk to your doctor to learn what is causing your anemia, what other tests you might need and what kind of treatment is best.

▶ Where can I learn more?

For more information about anemia and chronic kidney disease, talk to your doctor. You can also call our toll-free HelpLine at 866.300.2900 or visit our website at www.kidneyfund.org.