

# WHAT YOU NEED TO KNOW ABOUT ANEMIA AND DIALYSIS



## What is anemia and why do people on dialysis have it?

- You have anemia when there are not enough red blood cells in your blood.
- Red blood cells have hemoglobin, which carries oxygen throughout your body. Without enough hemoglobin and oxygen, you do not feel well.
- People with anemia have a low hemoglobin level.
- Most everyone on dialysis has anemia because:
  - Your kidneys are not making enough of a hormone called erythropoietin to help your body make red blood cells
  - You often lose some blood during hemodialysis treatments and blood testing
  - You may have low levels of iron. Iron is needed to make hemoglobin. People on dialysis don't usually get enough iron in their diet.
  - You may have low levels of vitamin B12 or folate. These vitamins are needed to make red blood cells.
- Treatment is available.

## What are signs and symptoms of anemia?

- When you have anemia, you may:
  - Feel tired
  - Have a rapid heartbeat
  - Have a poor appetite
  - Feel depressed or "down in the dumps"
  - Have trouble thinking clearly
  - Feel dizzy or have headaches
  - Have little energy for your daily activities
  - Feel short of breath
  - Have trouble sleeping
  - Look pale

## How is anemia treated?

- The main goals for treating anemia are to:
  - Prevent serious health problems (having anemia for a long time can lead to heart disease)
  - Help you feel better and improve your quality of life
  - Lessen the need for blood transfusions
- Erythropoiesis-stimulating agents (ESAs) act like the hormone erythropoietin from healthy kidneys and help your body make red blood cells. The amount of ESA you get depends on your medical history, body weight, your hemoglobin level, and how you feel. Your doctor may lower or stop your ESA dosage if your blood pressure is increasing. You may not get an ESA if you are at high risk for stroke or have a history of cancer. ESAs can be given as a shot under the skin or through the hemodialysis access.
- You need to have enough iron to make red blood cells. In fact, once you start getting ESAs, you will make more red blood cells and your iron supply will be used up faster. Taking extra iron may help solve this problem and make your ESA treatment more effective. If you are on peritoneal dialysis, you can get iron as a pill or as an injection through a vein. If you are on hemodialysis, it can be given through the hemodialysis access.

## How does my doctor check me for anemia?

- Your dialysis team will order these blood tests to see how well your anemia treatment is working:
  - Hb (hemoglobin): shows if your red blood cells can carry enough oxygen through your body
  - TSAT (transferrin saturation): measures the amount of iron in your blood
  - Ferritin: measures the amount of iron stored in your body
- The “best” results of these tests are different for each person, so your anemia treatment will be made just for you.
- Your doctor and nurses will check your body for signs of anemia and ask you how you are feeling.

## What are the risks and benefits of blood transfusions?

- Transfusions are life-saving. They may be used in urgent situations such as heavy bleeding, emergency surgery, and treating heart attacks made worse by anemia. Your doctor may also feel that you need a transfusion because your anemia treatments are not working and you have severe signs of anemia.
- If you do need a transfusion, ask for “leukopoor and irradiated” blood because this treatment can reduce some of the risks listed below. Possible risks from blood transfusions are:
  - Allergic reactions
  - Reactions that cause red blood cells to break open (uncommon)
  - Reactions that cause fever
  - Infections (rare)
  - Lung injury (uncommon)
  - Increasing the time you wait for a transplant

## What can I do to help my anemia and to avoid blood transfusions?

- Do not miss:
  - Scheduled hemodialysis treatments
  - Scheduled peritoneal exchanges
  - Prescribed doses of your ESA and iron
- Take all medications and supplements as prescribed.
- Follow your doctor’s orders to either lower the dose or stop the use of blood pressure pills called ACE inhibitors and ARBs. These drugs can make it harder for you to make red blood cells.
- Understand the risks and benefits of a transfusion and know what to watch out for if your doctor recommends one for you.
- Get a blood pressure monitor and take your pressure every morning and night. Tell your doctor about the results. The target blood pressure before dialysis is 140/90 and, after dialysis, 130/80, but your doctor may have different targets for you.
- Do not smoke. Stay clear of second-hand smoke.
- If you have any trouble sleeping or wake up because it is hard to breathe, let your doctor know. If you have sleep apnea, always use the device prescribed by your doctor.
- Talk with the dietitian and follow a dialysis-friendly diet.
- Talk to your doctor about exercising while on dialysis or between treatments. It may help.