

Anemia

By Evelyn Hoffa, MSN, MPH, GNP, Dublin, Georgia

Content Expert: Danny E. Hoffa, MD, FASCP, FCAP, Laboratory Director,
Fairview Park Hospital, Dublin, Georgia

A person with anemia has a low number of red blood cells. Anemia usually is caused by some disease. Anemia itself is not a disease. It is a sign that something else is wrong.

Q . What do red blood cells do?

A . Red blood cells are made in the bone marrow. Red blood cells carry oxygen from the lungs to the rest of the body. The organs and tissues of the body need oxygen to have the energy to do their work. In older persons, anemia is common but it is not normal.

Q . What are signs or symptoms of anemia?

A . Not everyone with anemia has warning signs. Common signs are weakness, tiredness, dizziness, or decreased appetite. The heart may beat faster than normal. But, there may not be any signs. Sometimes the anemia develops slowly and the body adapts to it.

Q . What causes anemia?

A . There are different types of anemia as well as different causes. When a person has anemia, either not enough red blood cells are being made by the body or the red blood cells are being used too fast. Below are common causes of anemia:

- Losing red blood cells too fast:
 - Bleeding (hemorrhage)
 - Early breakdown of red blood cells (hemolysis)
- Not making red blood cells fast enough:
 - Too little iron, vitamin B12 or folic acid
 - Anemia of chronic disease
 - Cancer of the bone marrow
- Iron present, but not used correctly (sideroblastic anemia)

Q . What causes red blood cells to be not made quickly enough and what are some common treatments for anemia in these cases?

A . Red blood cells may not be made quickly enough due to a lack of iron, vitamin B-12, or folic acid. A lack of iron may be caused by blood loss or by not eating enough foods rich in iron. A lack of vitamin B-12 is usually caused by the body being unable to absorb the vitamin. A lack of folic acid is usually caused by a poor diet or by medication.

Treatment of iron deficiency anemia may involve finding and treating the cause of bleeding as well as by adding extra iron to the diet. Vitamin B-12 deficiency anemia is usually treated by giving vitamin B-12 shots or pills. Folic acid deficiency anemia is usually treated by adding extra folic acid to the diet.

Sometimes the bone marrow, or red blood cell factory, fails to make enough red blood cells because of a disease that affects the bone marrow. A common cause of this is called anemia of chronic disease. Many different diseases can cause poor production of red blood cells by the bone marrow, including infections, cancers, arthritis, and kidney failure. This type of anemia is best corrected by treating the underlying disease. Bone marrow failure can also be caused by a disease found directly in the bone marrow, such as leukemia, which is a type of cancer. Other cancers may also spread to the bone marrow and replace it, destroying the ability of the body to make red blood cells.

Sideroblastic anemias are caused when iron is incorrectly used in the bone marrow and thus not enough red blood cells are made. These anemias can be caused by some medications or by a disease that is somewhat like leukemia. Treatment requires stopping the medication or treating the disease that is causing the sideroblastic anemia.

Q . How does my health care provider know what type of anemia I have?

A . Sometimes it is hard to know what type of anemia you have. Your health care provider will take a history of your symptoms, do a physical examination, and obtain blood tests. Sometimes a sample of the bone marrow needs to be taken to be examined directly. This involves withdrawing some bone marrow by aspiration and/or biopsy with a needle.

Q . Where can I find additional information on Anemia?

A . For information regarding anemia, check with your doctor. The following Web sites may also provide additional information:

- The American Academy of Family Physicians (www.familydoctor.org)
- The Mayo Clinic (www.mayoclinic.com)
- The AGS Foundation for Health in Aging's Aging in the Know Website (www.healthinaging.org/agingintheknow)

