

Information Handout

Provided by the National Anemia Action Council, Inc., a nonprofit corporation.



Anemia & Heart Disease

What is anemia?

Anemia is a below-normal level of hemoglobin* or hematocrit*. Hemoglobin is the protein in red blood cells that carries oxygen to all parts of the body. Anemia can be a temporary condition, a consequence of other health conditions, or it can be a chronic problem. People with mild anemia may not have any symptoms or may have only mild symptoms. People with severe anemia may have problems carrying out routine activities and can feel tired or experience shortness of breath with activity.¹

How common is anemia in people with heart disease?

Many large studies have shown anemia is common in 17-48% of people with heart failure. One study showed that 43% of people who were hospitalized after a heart attack had anemia.²⁻⁴

What causes anemia in people with heart disease?

Anemia occurs when your body has a below-normal level of hemoglobin, which in turn prevents your body from getting enough oxygen. In certain cases, this lower level of oxygen causes your heart to work harder. These effects on your heart can make you susceptible to heart disease or worsen existing heart disease.¹

What are the effects of untreated anemia in heart disease?

Anemia can lead to severe chest pain because parts of the heart are not getting enough oxygen. Lack of oxygen makes a heart work harder, so the muscles in its left-lower chamber may get too thick. This condition is called left ventricular hypertrophy, which can worsen heart disease and increase the chance of heart failure.¹ In a study of people who initially had no heart disease, people with anemia were 41% more likely than those without anemia to have a heart attack, need an artery-clearing procedure, or die of heart disease within six years.⁵ Another study showed that anemia increases the chance of artery blockages in the arteries of the neck, a problem which can result in a stroke.⁶ The presence of anemia increases the death rate in people with heart failure and those who have had a heart attack.^{2,7-11} The death rate is especially

high in anemic people with heart failure who also have kidney disease and/or diabetes.⁹ While managing anemia may be life saving in some circumstances, treatment has not proven to guarantee a longer lifespan.

How do I know if I have anemia?

The best way to determine if you have anemia is to discuss your blood counts and changes in hemoglobin and hematocrit with your doctor. Symptoms usually develop when anemia is moderate to severe, and can include fatigue, weakness, pale skin, chest pain, dizziness, irritability, numbness or coldness in your hands and feet, trouble breathing, a fast heartbeat, and headache. It is important to see your doctor on a regular basis in order to be tested for possible anemia.

What treatments are available to help me?

Some treatments for anemia may be as simple as taking vitamins or iron supplements or preventing a loss of blood. Other people may benefit from treatment with man-made erythropoietin medications that stimulate red blood cell production. Close communication with your doctor will help him or her provide the treatment that is best for you based on what is causing the anemia.

Glossary

Heart failure: Condition that weakens the heart muscle and impairs its ability to pump blood through the body. This can cause fluid retention (swelling of the feet, fluid in lungs, shortness of breath, and other symptoms)

Hematocrit: Percentage of red blood cells in a blood sample

Hemoglobin: Protein carried by red blood cells that transports and delivers oxygen throughout your body

Left ventricular hypertrophy: Enlargement of the left-lower chamber of the heart

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*Normal Lab Values: Normal hemoglobin >12 g/dL for women, >13 g/dL for men; normal hematocrit >36% for women, >39% for men.

Anemia & Heart Disease ...Continued

References

1. National Anemia Action Council. Anemia: A Hidden Epidemic. Los Angeles, CA: HealthVizion Communications, Inc; 2002.
2. Wu WC, et al. N Engl J Med. 2001;345:1230-1236.
3. Ezekowitz JA, et al. Circulation. 2003;107:223-225.
4. Kosiborod M, et al. Am J Med. 2003;114:112-119.
5. Sarnak MJ, et al. J Am Coll Cardiol. 2002;40:27-33.
6. Irace C, et al. Coron Artery Dis. 2003;14:279-284.
7. Ezekowitz JA, et al. Circulation. 2003;107:223-225.
8. Mozaffarian D, et al. J Am Coll Cardiol. 2003;41:1933-1939.
9. Collins A, et al. Adv Stud Med. 2003;3(3C):S14-S17.
10. Silverberg DS, et al. J Am Coll Cardiol. 2001;37:1775-1780.
11. Mancini DM, et al. Circulation. 2003;107:294-299.

NAAC's Online Resources for Patients & Consumers (www.anemia.org)

Information Handouts – Educational handouts describing anemia caused by different conditions including: aging, cancer, diabetes, vitamin deficiency, chronic kidney disease and more; free print or download access

Frequently Asked Questions – Answers to patients' common questions regarding anemia

Anemia Glossary – Definitions for medical terms relating to anemia which are used in NAAC's educational material

Feature Articles – Short articles covering anemia-related topics for patients, caregivers and allied healthcare providers

Anemia Watch – Our free quarterly e-newsletter covering current anemia-related topics and news

Anemia Symptoms Quiz – Printable questionnaire to fill out and take to a physician

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