

Anemia and HIV/AIDS

Anemia is a condition in which the body has too few red blood cells. Red blood cells contain hemoglobin that carries oxygen to all parts of your body. If you do not have enough oxygen, your organs and tissues cannot function properly. As a result, you may feel tired, weak, or dizzy. You may have shortness of breath, rapid heartbeat, and difficulty sleeping. If anemia is not treated, it can affect your quality of life and ability to carry out daily activities.

WHY DOES HIV-INFECTION CAUSE ANEMIA?

Anemia is very common in persons with HIV-infection and the risk increases as the disease progresses. About 30% of those with HIV-infection will experience anemia while up to 90% of those with symptomatic AIDS will have anemia at some time during the course of their illness.

Normally, your body regulates the amount of red blood cells and hemoglobin that is produced. When your red blood cell count is low, the kidneys are stimulated to produce a hormone called erythropoietin. Erythropoietin signals the bone marrow to make more red blood cells.

THERE ARE MANY POSSIBLE CAUSES OF ANEMIA FROM HIV-INFECTION

Not enough red cells. With HIV-infection, the body does not respond as efficiently to produce more erythropoietin and red blood cells. HIV may also directly affect the bone marrow and limit production of red blood cells.

Infections. Bacterial and fungal infections as well as certain viruses (parvovirus, cytomegalovirus) suppress the bone marrow and may interfere with red blood cell production.

Therapy. Many of the antiretroviral drugs used to treat HIV-infection can affect the bone marrow and cause anemia. In addition, some antibiotics and antifungal medications may contribute to anemia.

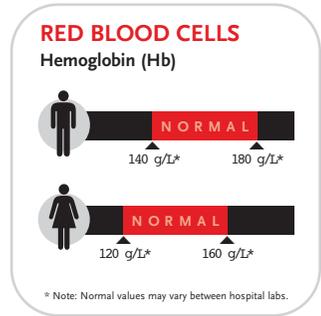
Cancer. Patients with HIV are at high risk for certain cancers, in particular, lymphoma. These cancers often invade the bone marrow and can interfere with red blood cell production.

Malnutrition. HIV-infection can lead to poor absorption of nutrients like iron, folate, and vitamin B₁₂, and this also increases the likelihood of anemia.

HOW DO YOU KNOW IF YOU HAVE ANEMIA?

The experience of anemia varies depending on the individual. In the beginning, you may not notice any symptoms. As anemia progresses, people often report feeling fatigued and weak. You may look pale and may experience other symptoms such as shortness of breath, headaches, or loss of concentration.

If you have symptoms that suggest you have anemia, tell your doctor or nurse. The only real way to know if you have anemia is to have a blood test to check your red blood cells and, specifically, your hemoglobin. Depending on your hemoglobin level, your doctor will determine if you have anemia. Normal hemoglobin levels range between 120 g/L to 160 g/L for women and between 140 g/L to 180 g/L for men. Not everyone experiences the symptoms of anemia at the same hemoglobin level.



WHAT ARE THE BENEFITS OF TREATING ANEMIA FOR PEOPLE LIVING WITH HIV/AIDS?

Quality of life. By increasing hemoglobin levels, patients experience improved energy, activity level, and overall quality of life. Even mild anemia can result in extreme fatigue and can interfere with your ability to work, perform daily tasks, or participate in family and social activities.

Progression of HIV-infection. The risk and severity of anemia increases with progression from HIV to AIDS. Increasing hemoglobin levels has been shown to be associated with improved survival for persons with HIV-infection.

HOW IS ANEMIA TREATED?

Treatment for anemia depends on correctly identifying its cause.

Increase nutrient intake. If you have too little iron, vitamin B12, or folic acid to make your red blood cells work effectively, your doctor will likely suggest that you change the foods you are eating, or take specific vitamins or iron pills.

Improve hemoglobin production. If your anemia results from too few red blood cells, in selected cases, your physician may prescribe a medication called recombinant erythropoietin, a synthetic form of the naturally-occurring hormone that stimulates red cell production.

Blood transfusion. If your red cell count falls rapidly too low, you may require a blood transfusion in addition to erythropoietin.



1-877-99ANEMIA
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