



Low Red Blood Cell Count (Anemia)

Anemia is a decrease in the number of red blood cells (RBCs). Most cancer therapies destroy cells that grow at a fast rate. Red blood cells grow at a fast rate and are often affected. An important part of the RBC is hemoglobin. It is the protein that carries oxygen throughout your body. When your hemoglobin is low oxygen levels are decreased. Your body has to work harder in order to compensate. The end result is that your body becomes tired.

Normal hemoglobin levels for women are usually in the range of 12-16 gm/dL; for men, the normal level is from 14-18 gm/dL. While receiving treatment, your hemoglobin level may drop to lower than these normal levels. Your hemoglobin level will be checked during treatment. Any time that your hemoglobin level drops below 10.0 gm/dL you are considered to be anemic.

The signs and symptoms of anemia include:

- Weakness or [fatigue](#).
- Dizziness.
- Headache.
- Shortness of breath or difficulty breathing.
- Palpitations or rapid heartbeat.
- Pale skin.
- Feeling cold, particularly in the hands and feet.

What can I do to prevent anemia?

There is nothing specifically that you can do to prevent anemia from occurring. Anemia may cause you to feel weak and tired. Here are some ways to help you feel better:

Saving energy

- Get plenty of sleep.
- Avoid prolonged or strenuous activity.
- Pace yourself; take rest periods during activities that make you feel tired. Take short naps when needed.
- Prioritize your activities so you will have enough energy for important activities or the activities that you enjoy most.
- Ask friends and family to help you prepare meals or do chores when you're tired.

Avoiding injury

- Change positions slowly, especially when going from lying to standing to prevent dizziness.
- When getting out of bed, sit on the side of the bed for a few minutes before standing.

Eat a well-balanced diet

- Eat foods high in iron, including green leafy vegetables, liver, and cooked red meats.
- Drink plenty of fluids.
- Avoid caffeine and big meals late in the day if you're having trouble sleeping at night.
- Take iron supplements only if you have been told to by your provider.

When should I call my provider?

Call your provider right away if you have any one or more of the following:

- Dizziness.
- Shortness of breath or difficulty breathing.
- Excessive weakness or fatigue.
- Palpitations or chest pain.

How is anemia treated?

There are many ways that anemia can be treated. Your provider may tell you to take over-the-counter iron pills on a daily basis or may order blood transfusions.

Your provider may also choose to order injections of a "growth factor", which can be used to stimulate the growth of red blood cells, in certain patients. By increasing your body's production of red blood cells, this growth factor may decrease your risk of becoming anemic, and may also decrease the number of blood transfusions that may be needed during your treatment.

Growth factors are given by injection. You may receive the injections from the oncology nurse, or you and/or a family member may be taught how to give the injections at home. Once your red blood cell count has returned to a normal level, the injections will be stopped.

In some cases your provider may decide to delay further treatments until your red blood cell count has returned to normal levels.

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