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Anemia (Low Red Blood Cell Counts)

Anemia is a condition that develops if your body is not making enough red blood cells (RBCs). Red blood cells have a protein called **hemoglobin** (Hgb), which carries oxygen throughout your body. Cells in your body need oxygen to function and survive. Many people with cancer have anemia.

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What causes anemia?

Low red blood cell counts (anemia) can be caused by cancer, cancer treatments, or something other than cancer. Some reasons people get anemia include:

- **Cancers that affect the bone marrow** (leukemias, lymphomas, multiple myeloma)
- **Blood loss** from injury or other problems
- **Cancer treatments** such as [radiation](#)¹ or [chemotherapy](#)²
- **Disorders that affect the bone marrow** such as [myelodysplastic syndromes](#)³ (MDS)
- **Bleeding tumors** (most common in the liver, stomach, and peritoneum)
- **Nutrition problems** such as low levels of iron, vitamin B12, or folate
- **Medicines** such as nonsteroidal anti-inflammatory drugs (NSAIDs), aspirin, steroids, antibiotics

What are the symptoms of anemia?

You might not feel any effects of anemia until your hemoglobin level is very low. Some of the most common signs and symptoms are:

How is anemia treated?

Treatments for low red blood cells depend on the cause. The most common treatments are:

- A [red blood cell transfusion](#)¹⁰ if your hemoglobin is very low or if you have signs of bleeding
- Iron supplement therapy (given as an IV or pill)
- Medicines that tell the body to make new red blood cells (called erythropoiesis-stimulating agents or ESAs)
- Vitamin B12 or folic acid supplements (given as an IV, shot, or pill)

If chemotherapy, medicine, or other treatment is causing anemia, the doctor might lower the dose, switch to a different treatment, or stop the treatment altogether to give your body a chance to recover.

Tips for managing anemia

- If you have anemia caused by low iron, eat foods high in iron such as: Red meat, fatty fish, chicken, and turkey
Dark leafy greens such as spinach, kale, collard greens, and chard
Beans, lentils, and tofu
Dried fruits such as raisins, apricots, and peaches
Fortified cereals
Enriched pasta and rice
- Drink plenty of water unless your doctor tells you to limit your fluids. It's OK to include other fluids such as broth and tea.
- When your red blood cells are low, you might feel tired, short of breath, or dizzy doing your normal activities. Be careful, ask for help, and rest when you need to.

Talk to your doctor or cancer care team if you

- Have dark brown or bright red vomit
- Have red or black stools
- Are dizzy, lightheaded, or have fallen
- Can't get out of bed for more than 24 hours

Hyperlinks

1. www.cancer.org/cancer/managing-cancer/treatment-types/radiation.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/chemotherapy.html
3. www.cancer.org/cancer/types/myelodysplastic-syndrome.html
4. www.cancer.org/cancer/managing-cancer/side-effects/fatigue.html
5. www.cancer.org/cancer/managing-cancer/side-effects/swelling.html
6. www.cancer.org/cancer/diagnosis-staging/tests/understanding-your-lab-test-results.html
7. www.cancer.org/cancer/diagnosis-staging/tests/biopsy-and-cytology-tests.html
8. www.cancer.org/cancer/diagnosis-staging/tests/biopsy-and-cytology-tests.html
9. www.cancer.org/cancer/diagnosis-staging/tests/imaging-tests/imaging-radiology-tests-for-cancer.html
10. www.cancer.org/cancer/managing-cancer/treatment-types/blood-transfusion-and-donation/what-are-transfusions.html

References

Drew RE. Causes of anemia in patients with cancer. *UpToDate*. UpToDate Inc; 2023. Updated November 2023. Accessed November 21, 2023. <https://www.uptodate.com/contents/causes-of-anemia-in-patients-with-cancer?>

Loprinzi CL & Patnaik MM. Role of erythropoiesis-stimulating agents in the treatment of anemia in patients with cancer. *UpToDate*. UpToDate Inc; 2023. Updated September 2022. Accessed November 21, 2023. <https://www.uptodate.com/contents/role-of-erythropoiesis-stimulating-agents-in-the-treatment-of-anemia-in-patients-with-cancer?>

Means RT & Brodsky RA. Diagnostic approach to anemia in adults. *UpToDate*. UpToDate Inc; 2023. Updated September 2022. Accessed November 21, 2023. <https://www.uptodate.com/contents/diagnostic-approach-to-anemia-in-adults?>

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