

Cytopenias or Low Blood Cell Counts

Low blood cell counts (cytopenias) can be caused by chemotherapy and radiation therapy. These cancer treatments target rapidly dividing cancer cells. The treatments can also affect other rapidly dividing cells, such as those in your bone marrow. You may experience low white blood cell count (neutropenia), low red blood cell count (anemia) or low platelet count (thrombocytopenia). A blood test called a Complete Blood Count (CBC) checks your levels of each blood cell type.

Depending on the type of treatment, your counts may reach their low point (nadir) 7-10 days following treatment. During this time you are likely to feel tired, and you may need to take naps or rest more than usual. You will begin to feel better when your blood cell counts recover, approximately two weeks following treatment.

Neutropenia (low WBCs)

When your white blood cell count is low, you are at higher risk for infection. Your weakened immune system is less able to fight infection.

What to do if you have neutropenia:

- Wash your hands frequently to prevent the spread of infection.
- Avoid crowds until your counts have recovered.
- Wear a mask if you will be around anyone who is sick.
- Do not schedule dental work until your white blood cell count recovers.
- Speak with your health care team before receiving any immunizations.

Call your doctor if you experience:

- A fever of 100.4 degrees or greater
- Severe chills or shaking
- Sudden new pain
- Signs of pneumonia, including chest congestion and difficulty breathing
- Signs of a urinary tract infection, including blood in your urine or difficulty urinating

Anemia (low RBCs)

When your red blood cell count is low, it is harder for your body to circulate oxygen. You may feel tired, short of breath, or experience a rapid heartbeat. If your red blood cell count is low enough, your doctor may recommend a blood transfusion.

What to do if you have anemia:

- Rest as needed.
- Pace yourself to help your activity tolerance.
- Take walks or do other light exercise every day.
- Eat a healthy diet rich with lean protein, whole grains, fruits, and vegetables.

Call your doctor if you experience:

- Chest pain
- Difficulty breathing
- Severe weakness
- Dizziness or feeling faint

Thrombocytopenia (low platelets)

When your platelet count is low, you are at risk for bleeding. Platelets help blood clot. You may notice you bruise more easily, or bleed from your nose, gums, or rectum. It will take longer than usual for a paper cut or other wound to stop bleeding. Tiny red dots called petechiae may appear on your skin.

What to do if you have thrombocytopenia:

- Avoid activities that could cause injury.
- Do not take aspirin or ibuprofen.
- Avoid drinking alcohol, which can thin your blood.

Call your doctor if you experience:

- Bleeding that will not stop after 5 minutes of applying pressure
- Bleeding that appears without injury
- New or unexplained pain
- Dizziness or double vision

Visit our website for more information about support groups, clinical trials and lifestyle information.

PTE.315 © Copyright 2015

NOTE: This information is provided to you as an educational service of National Jewish Health. It is not meant to be a substitute for consulting with your own physician.

National Jewish Health is the leading respiratory hospital in the nation. Founded 123 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit njhealth.org.