



Your Lab Tests

Lab tests are needed when you have cancer. These tests are usually done by drawing a small amount of blood from a vein in your arm. Other tests are done on cancer cells removed during a biopsy. Lab tests provide information to help you and your cancer team know more about your cancer, find which treatment option is best, and watch how your body responds to treatment. Lab tests can also be used to find other health problems and may help prevent certain side effects. Here are the most common types of lab tests and what they can tell your cancer care team about your health.

Complete blood count (CBC)

One of the most common lab tests done is a complete blood count, or CBC. The CBC measures 3 types of cells in the blood: red blood cells, white blood cells, and platelets. Each cell type has a special job. Depending on your type of cancer, what treatment you're getting, and how your body is responding to treatment, your blood cell counts may go up or down. Sometimes they may be too high or too low.

- Red blood cells (RBCs) carry oxygen from the lungs to the rest of the body. Red blood cells are often measured using hemoglobin (HGB) and hematocrit (HCT) levels. When either of these gets too low, a person is said to have anemia. This can make you feel very tired or weak, have a hard time breathing, or feel dizzy or lightheaded.
- White blood cells (WBCs) help the body fight infection. There are many types of white blood cells, and each works in a special way. Neutrophils are the most important type of white blood cell for fighting infection. If your neutrophil count is high, it might mean you have an infection. But when you're getting certain types of cancer treatment, your neutrophil count might drop. The number doctors look at

during treatment is called your absolute neutrophil count (ANC). When your ANC is low, your chance of getting an infection is higher.

- Platelets (plts) help your blood clot and stop bleeding. When your platelet count is low, you might bleed or bruise easily, and when you bleed, it may take longer for the bleeding to stop.

Chemistry panel

A chemistry panel is a lab test for certain substances in your blood to check how organs like your liver and kidneys are working. It also measures the electrolytes in your blood, like sodium, potassium, and calcium. Sometimes cancer and cancer treatments can cause chemistry tests to be too high or too low.

Biomarkers (tumor markers and molecular tests)

Some types of cancer cells make chemicals or proteins that can help doctors diagnose a cancer, know how to treat a cancer, or watch how your body is responding to treatment. These are sometimes called biomarkers, tumor markers, or molecular tests. Some of these tests can be measured by drawing blood, and some are measured by testing urine or body tissues.

Tumor markers may help find cancer or check how you are responding to treatment. Sometimes the level of a tumor marker can be low or high for different reasons.

Molecular tests help find gene or protein changes in cancer cells. It is important to test some types of cancer for these changes before making treatment decisions. Knowing if your tumor has certain changes can help your doctor know which treatment may be best for you. Check with your cancer care team to see if your type of cancer should be tested for gene or protein changes.

What's normal?

The normal range for lab tests can be a little different from lab to lab. What's considered normal might also depend on the type of cancer and treatment you are getting. Talk to your cancer care team about what your lab values mean for you. Your cancer care team will tell you if a lab test is too high or too low, and what can be done to get your blood levels back to normal.

The normal range for each test is usually written on your lab report, next to your test result. Some people find it helpful to have a member of their cancer care team go over their test results with them.

For cancer information, day-to-day help, and support, call the American Cancer Society at **1-800-227-2345** or visit us online at **cancer.org**. We're here when you need us.



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