

# Laboratory Testing

A Laboratory test examines a sample of blood, urine, or other bodily fluid or tissue to get information about your health.

*"Lab test can be used for the screening of cancer in a healthy individual. And then it can be used for the diagnosis of cancer. It can also be used for the staging of cancer. And then ultimately, once a patient has been diagnosed, we can use it to monitor their response to treatment and also monitor for side effects from the treatment."* - Stevie Otis, MD, Hematologist/Oncologist

One common lab test is a Blood chemistry test, also known as a Metabolic Profile.

*"We can measure the level of protein in the blood, the level of glucose in the blood, the level of their electrolytes. This gives us an idea of whether they're having toxicity from their treatment, particularly kidney toxicity, liver toxicity."* - Stevie Otis, MD, Hematologist/Oncologist

Another test you may get is a Complete Blood Count or CBC.

*"The CBC measures the number of blood cells including the red blood cells. Red blood cells are the cells that carry oxygen to your tissues. It will measure the white blood cells, which comprise your immune system. It also measures the platelets, which play a role in blood clotting when there is tissue injury."* - Stevie Otis, MD, Hematologist/Oncologist

Among other things, a CBC also measures Hemoglobin, which is the protein inside a red blood cell that carries oxygen and Hematocrit, the percentage of blood volume that's made up of red blood cells.

*"CBCs are important in monitoring bone marrow toxicity from the treatments that we give. So, we monitor it in every cancer patient. A CBC can also be used to monitor disease status in patients who have blood cancers. So, particularly, Leukemias."* - Stevie Otis, MD, Hematologist/Oncologist

Another key lab test is a Tumor Marker Test, which measures substances in tissue, blood, or other bodily fluids that are produced by cancer or by other cells in response to cancer.

*"It gives us an idea of how aggressive the cancer is, how well the patient might respond to treatment. Tumor markers, sometimes, are used for staging cancer. Tumor markers can also help guide our treatment choice."* - Stevie Otis, MD, Hematologist/Oncologist

Common tumor marker tests include the Prostate-specific Antigen, or PSA for Prostate cancer. Ca 15-3 for Breast cancer and CA-125 for Ovarian cancer.

*"We are finding more and more tumor markers every day that are helping us identify sub types within cancers."* - Stevie Otis, MD, Hematologist/Oncologist

In yet another kind of lab test called a Urinalysis, a sample of urine is analyzed for protein, blood cells, or other

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substances. Depending on which lab test your provider orders, you may be instructed not to eat or drink beforehand, or not to take certain medications. Results of lab tests are often reported along with what's called a Normal range or a Reference range. Readings outside this range are flagged as abnormal. It's possible for someone who's healthy to have abnormal findings, while someone with cancer may have normal readings. That's why it's crucial to review lab test results with your provider.

*"Because the doctor taking care of them, who knows them, knows what disease they have, what the status of that disease is, where they are in their treatment process, what other medical problems they have. All of these variables influence the lab result. And so, it's really important that their doctor help them interpret their lab results because it has to be put into the context of the individual."* - Stevie Otis, MD, Hematologist/Oncologist