

What Does a Blood Test Tell You?

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When a healthcare provider recommends lab work, a common response from patients is, “Oh no, not needles.” That anxiety over having blood drawn often stops patients from really thinking about how much our blood tells us about the state of our health.

Once blood is drawn, different laboratory tests can analyze the blood for information about a person’s overall health, nutrition, and organ function and identify signs of a surprising variety of diseases, disorders, and physical conditions. Here are some of the most common types of lab tests that require a blood draw, and what we can learn from each one.

CBC

A complete blood count, or CBC, is the most common type of blood test and is a routine part of preventive health care. CBCs check the levels of different blood components: red blood cells, white blood cells, platelets, and hemoglobin (an important protein in red blood cells that carries oxygen throughout the body).

By themselves, your CBC results do not provide a diagnosis for any condition, but abnormal results can be a sign of nutritional deficiencies or anemia, some cancers and infections, or immune system disorders.

If the CBC shows abnormal levels of any component, your healthcare provider will order a follow-up test to confirm the accuracy of the results and may recommend additional tests and/or evaluation by a specialist to diagnose the problem.

Metabolic Panels

Metabolic panels are another routine tool used by our primary care providers which evaluates a patient's overall health and kidney function.

A basic metabolic panel tests for different compounds in the bloodstream, including calcium, glucose, potassium, sodium, and a few others. A comprehensive panel measures the same substances as the basic panel, plus additional chemicals including albumin, total protein, different enzymes, and a waste product called bilirubin.

The panel results can identify many different issues, depending on which compounds in the blood are found to be abnormal and if their levels are low or high. Problems that can be identified from a metabolic panel include kidney and liver disease, diabetes, electrolyte imbalances, adverse reactions to certain medicines, and even infections including hepatitis and mononucleosis.

Metabolic panel blood tests require the patient to fast in advance because the levels of blood sugar and other compounds spike after eating, and would otherwise cause inaccurate results.

Like other blood tests, metabolic panels do not give a diagnosis by themselves, but they can be a powerful tool to help healthcare providers identify health issues of concern.

Lipid Panel

Lipid panels are used to measure cholesterol. This is another test that requires fasting, because cholesterol levels in the bloodstream are affected by recent meals.

The test measures both HDL and LDL types of cholesterol, which can help health care providers gauge your risk of atherosclerosis (plaque buildup) and heart disease.

Thyroid Function Tests

The thyroid is a small gland with a big impact – it helps regulate moods, energy levels and metabolism. Blood tests can measure substances that are produced by the thyroid, such as TSH, T3, and T4, as well as thyroid antibodies.

Each of these substances has a different function, so abnormal levels of any one of them not only indicates whether the thyroid is functioning normally, but can also be a sign of a variety of health conditions, including growth disorders, hormone imbalances, or autoimmune diseases.

Rheumatology

Many different blood tests are also used in the diagnosis of rheumatological conditions such as gout.

A test that shows elevated C reactive protein indicates inflammation, which is associated with autoimmune conditions.

A test that shows elevated erythrocyte sedimentation rate (“sed rate” or ESR) and high antibody levels in a patient may indicate a type of rheumatic disease, such as lupus, scleroderma, rheumatoid arthritis, or other conditions.

Other Tests

Antibodies detected in the bloodstream with blood tests can help diagnose infections, including many STIs, as well as diseases that are not infectious, like certain cancers.

Blood tests are also used to confirm the results of a home pregnancy test and test for the Rh antigen, which is important for identifying pregnancy risks associated with Rh incompatibility between the mother and fetus.

Taking a Blood Test

Taking a blood test is not like taking a math test, but you do need to follow your provider's instructions and you may need to plan ahead.

Some blood tests require you to fast for up to 12 hours or to stop taking certain medications before the blood draw. Even if you don't need to fast, it's a good idea to get a good night's sleep, drink lots of water, and avoid caffeine and alcohol before your blood draw. This will make it easier for the phlebotomist to access a vein, ultimately making the blood draw more comfortable for you.

You can also make the appointment go more smoothly by wearing a short sleeve shirt so that it's easier to access the inner elbow where the needle is most commonly inserted to draw your blood. Most commonly, blood tests draw blood from a vein, but some specific tests may only require a finger prick.

Although it may look like a lot of blood, a standard blood draw takes no more than 30mL of blood – about 2 tablespoons. This amount of blood loss has no effect on the body, but needles, the sight of blood, and pain anxiety can cause some people to become dizzy. If you feel nausea or dizziness during or after a blood draw, remain seated and tell the phlebotomist.

How Often to Get Your Blood Tested

Healthcare providers request routine blood work for adults at least every five years. This becomes more frequent as patients age, with seniors commonly requiring blood work every year.

People who are at higher risk for specific health conditions or who are showing symptoms of those conditions may be tested more often.

Blood tests are valuable tools used by healthcare providers to diagnose a wide array of problems. But an abnormal blood test by itself is not a diagnosis.

In fact, some test results that are flagged as "abnormal" at the lab may be within acceptable ranges for your individual health. You should always communicate with your health care provider to understand the results of your blood test and to get your questions answered.

If you're living with a chronic condition or haven't had your blood tested in the last few years, request an appointment with one of our Family Medicine providers to get it checked. It's our goal to help you maintain good health and vitality for a lifetime.

Family Practice

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