

Tegretol (Blood)



Does this test have other names?

Carbamazepine level

What is this test?

This test measures the amount of the medicine carbamazepine in your blood. Carbamazepine is the generic name of a medicine used to treat epilepsy, mania, bipolar disorder, and pain.

Certain people have serious but rare skin reactions during the first 4 months of taking this medicine. Some of these reactions can be fatal. People at risk for these reactions have a specific genetic marker in their blood, HLA-B*1502. It's also called the human leukocyte antigen B*1502 allele. Most people who have this marker are of Asian descent. It is advised that healthcare providers screen people who are in at-risk populations (especially those of Asian descent) for this marker before prescribing it.

If you take this medicine for a period of time, you may also become increasingly sensitive to its effects. This can cause the medicine to be toxic to your system. Your healthcare provider can use this test to watch the amount of the medicine in your body to make sure that it doesn't reach a toxic level. Don't stop this medicine suddenly. Stopping this medicine suddenly may cause serious problems.

Why do I need this test?

You may need this test if your healthcare provider wants to look at the level of carbamazepine in your body. In addition to causing rare but serious skin and blood reactions, carbamazepine can sometimes cause people to have suicidal thoughts.

Call your healthcare provider if you have these symptoms while taking the medicine:

- Skin rash
- Hives
- Mouth sores
- Skin blisters
- Fever, sore throat, or other infections
- Skin that bruises easily
- Red or purple spots on the skin
- Bleeding gums
- Nosebleeds
- Severe tiredness (fatigue) or weakness
- Trouble sleeping (insomnia)
- Nausea, vomiting, or belly pain
- Yellowing of the eyes or skin (jaundice)
- Shortness of breath

- Fast, slow, or pounding heartbeat
- Any new symptoms of mental illness, including anxiety, depression, or suicidal thoughts or symptoms that are getting worse
 - Feeling agitated or restless
 - Acting aggressive, being angry or violent
 - Acting on dangerous impulses

What other tests might I have along with this test?

You may also need other tests, including:

- Liver function tests to look for liver damage
- Complete blood count with differential to find out the amount of certain types of blood cells
- Electrolyte test to measure the levels of certain minerals in your blood
- Blood urea nitrogen (BUN) and creatinine tests to find out if your kidneys are working normally
- Tests to check the levels of other medicines you may be taking
- Pregnancy test

You may also have genetic testing before starting this medicine. This is done to find out how likely you are to have a serious reaction to it. Your healthcare provider may advise this if you have an ethnic background that puts you at risk.

What do my test results mean?

Test results may vary depending on your age, gender, health history, and other things. Your test results may be different depending on the lab used. They may not mean you have a problem. Ask your healthcare provider what your test results mean for you.

Results are given in micrograms per milliliter (mcg/mL) or micromoles per liter (micromol/L). Safe blood levels of carbamazepine are 4 to 12 mcg/mL, or 17 to 51 micromol/L. You may have seizures, low blood pressure or fall into a coma if your levels are above 40 mcg/mL, or 170 micromol/L.

How is this test done?

The test is done with a blood sample. A needle is used to draw blood from a vein in your arm or hand.

Does this test pose any risks?

Having a blood test with a needle carries some risks. These include bleeding, infection, bruising, and feeling lightheaded. When the needle pricks your arm or hand, you may feel a slight sting or pain. Afterward, the site may be sore.

What might affect my test results?

Timing is important for this test. The most accurate results are often from a test done just before you take a scheduled dose of carbamazepine.

How do I get ready for this test?

Tell your healthcare provider how long you've been taking carbamazepine and what blood level has been adequate to control your symptoms in the past. Tell your provider about all medicines, herbs, vitamins, and supplements you are taking. This includes medicines that don't need a prescription and any illegal drugs you may use.

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