

Catecholamines (Blood)



Does this test have other names?

Dopamine, epinephrine, and norepinephrine tests

What is this test?

This test measures the levels of catecholamines in your blood. The catecholamine hormones are epinephrine, norepinephrine, and dopamine. Epinephrine is also called adrenalin.

Catecholamines are made in the adrenal glands. They are released when you have physical or emotional stress. These hormones have many functions in the body. These include sending nerve impulses in the brain, narrowing blood vessels, and raising your heart rate. The test can help diagnose certain conditions that affect catecholamine levels.

Rare tumors can also affect catecholamine levels. They cause high blood pressure that generally goes away if the tumor is taken out. Pheochromocytomas happen in less than 0.2% of people with high blood pressure. About 10% of them are cancer. Neuroblastoma tumors, which are also cancer, almost always appear in childhood.

Why do I need this test?

You may need this test to help your healthcare provider figure out if you have certain conditions that cause high blood pressure, severe headaches, a fast heartbeat, and sweating.

You may also have this test if your healthcare provider thinks you have a rare tumor that causes high blood pressure.

Your child may have this test if they have symptoms of a tumor that affects catecholamine levels. Signs and symptoms may include:

- Bone pain or a limp
- "Dancing" eye or limb movement
- Anemia
- Weight loss
- An abnormal lump, often in the belly

What other tests might I have along with this test?

You may also need a urine test to check your catecholamine levels. You may also need a CT scan or MRI of the belly and pelvis to find the suspected tumor.

You may also need a homovanillic acid or vanillylmandelic acid test for catecholamine metabolites in your blood or urine. These tests can help find out the cause of your symptoms. These substances form when catecholamines break down in the body.

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.

Your test results may not mean you have a problem. If you have higher levels of catecholamines in your blood, you may have a pheochromocytoma, paraganglioma, or neuroblastoma tumor.

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?

Physical and emotional stress can affect your results. Your diet and certain medicines can also affect your results. Foods that can affect your results include bananas, citrus fruits, chocolate, caffeine, or other stimulants. You shouldn't eat these foods until you have had the test.

Your test results can also be affected if you are a woman who is menstruating on test day. Be sure to tell the lab technician that you are menstruating.

How do I get ready for this test?

You may be asked not to eat or drink anything for a time before the test. Also, try to stay away from rigorous exercise and stressful situations before your test. Be sure your healthcare provider knows about all medicines, herbs, vitamins, and supplements you are taking. This includes medicines that don't need a prescription and any street drugs you may use.

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