Creatine Kinase (Blood)



Does this test have other names?

Creatine phosphokinase, CK, CPK

What is this test?

This test measures the amount of an enzyme called creatine kinase (CK) in your blood.

CK is a type of protein. The muscle cells in your body need CK to function. Levels of CK can rise after a heart attack, skeletal muscle injury, or strenuous exercise. They can also go up after drinking too much alcohol or from taking certain medicines or supplements.

CK is made up of 3 enzyme forms. These are CK-MB, CK-MM, and CK-BB. CK-MB is the substance that rises if your heart muscle is damaged. CK-MM rises with other muscle damage. CK-BB is found mostly in the brain. If this test shows that your CK levels are high, you may have muscle or heart damage.

Why do I need this test?

Your healthcare provider may order this test if you may have muscle damage or injury. But because levels of this protein may not peak for up to 2 days after certain injuries, you may need to have this test several times to see if your heart or other muscles have been damaged.

You may also need this test if you have chest pain or weakness, and your healthcare provider wants to see if you've had a heart attack.

If you are taking statin medicines and have unusual muscle cramping and pain or muscle weakness, your healthcare provider may also order a CK test. Statin medicines are used to treat high cholesterol. They sometimes cause serious muscle injury. In very rare cases, they can even lead to a rapid, life-threatening muscle breakdown.

What other tests might I have along with this test?

Your healthcare provider may order other tests to find out if you have had muscle injury or a heart attack. If you have had a heart attack, your healthcare provider may order a blood test to look for high levels of cardiac troponin. This is another protein found in your heart. Cardiac troponin has replaced CK-MB as the test of choice to find out if you've had a heart attack. This is because cardiac troponin is more sensitive and more specific.

Or the healthcare provider may order tests to see how you are recovering. These tests include:

- Other blood tests
- Electrocardiogram to measure the electrical activity of your heart

Because levels of CK may rise if you have a thyroid problem, alcohol abuse, or kidney failure, your healthcare provider may also order tests to look for these diseases.

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.

The normal range for general CK varies by age and gender. Race is also known to affect CK levels. If you are Black, you may naturally have higher levels of CK. Some people with a muscular build also have higher levels

of CK.

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?

Strenuous exercise, recent surgery, and certain medicines may make your CK levels higher than normal.

How do I get ready for this test?

You don't need to prepare for this 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 illegal drugs you may use.

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