

## Education

### Creatine Kinase (Total) Test

What is the total creatine kinase test?

This test measures an enzyme in the blood. The enzyme is called creatine kinase (CK). Muscle cells make this enzyme. When muscle cells are injured or diseased, enzymes leak out of the cells and enter the bloodstream.

Why is this test done?

The CK test can show if muscles have been injured. It also gives an idea of how bad the injury is, when it happened, and whether it is healing.

The test may be done to:

- Find out if you have had a heart attack (myocardial infarction).
- Diagnose chest pain.
- Look for other muscle injuries or disease, such as muscular dystrophy or rhabdomyolysis.
- Check blood flow to the heart after heart surgery or other treatments that affect the heart muscle.

If this test shows that some muscle has been injured, other tests may also be done to see which muscles are injured.

How do I prepare for this test?

- If you are being checked for problems with your skeletal muscles, do not exercise for 24 hours before the test.
- You may need to avoid taking certain medicines before the test because they might affect the test result. Make sure your health care provider knows about any medicines, herbs, or supplements that you are taking. Don't stop any of your regular medicines without first consulting with your health care provider.
- Talk to your health care provider if you have any other questions.

How is the test done?

A small amount of blood is taken from your arm with a needle. The blood is collected in tubes and sent to a lab.

Having this test will take just a few minutes of your time. There is no risk of getting AIDS, hepatitis, or any other blood-borne disease from this test.

How will I get the test result?

Ask your health care provider when and how you will get the result of your test.

What does the test result mean?

The normal range for CK is 32 to 267 units per liter. The normal range may vary slightly from lab to lab. Normal ranges are usually shown next to your result in the lab report.

Your CK level may be higher than normal because:

- You have had a heart attack.
- You have recently had surgery.
- You have recently had a shot in one of your muscles.
- You have recently been in an accident or hurt one of your muscles.
- You have a muscle disease.

If your CK level is high, the test may be repeated (as often as every 8 hours) to see if the injury is healing or getting worse.

What if my test result is not normal?

Test results are only one part of a larger picture that takes into account your medical history and current health. Sometimes a test needs to be repeated to check the first result. Talk to your health care provider about the results and ask questions.

If your test result is not normal, ask your health care provider:

- if you need additional tests
- what you can do to work toward a normal value
- when you need to be tested again.

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