

Calcium Blood Test: MedlinePlus Lab Test Information

What is a Calcium Blood Test?

A calcium blood test measures the amount of calcium in your blood. Calcium is one of the most important minerals in your body. You need calcium for healthy bones and teeth. Calcium is also essential for proper functioning of your nerves, muscles, and heart. About 99% of your body's calcium is stored in your bones. The remaining 1% circulates in the blood. If there is too much or too little calcium in the blood, it may be a sign of bone disease, thyroid disease, kidney disease, or other medical conditions.

Other names: total calcium, ionized calcium

What is it used for?

There are two types of calcium blood tests:

- **Total calcium**, which measures the calcium attached to specific proteins in your blood.
- **Ionized calcium**, which measures the calcium that is unattached or "free" from these proteins.

Total calcium is often part of a routine screening test called a basic metabolic panel. A basic metabolic panel is a test that measures different minerals and other substances in the blood, including calcium.

Why do I need a calcium blood test?

Your health care provider may have ordered a basic metabolic panel, which includes a calcium blood test, as part of your regular checkup, or if you have symptoms of abnormal calcium levels.

Symptoms of high calcium levels include:

Symptoms of low calcium levels include:

Many people with high or low calcium levels do not have any symptoms. Your health care provider may order a calcium test if you have a pre-existing condition that may affect your calcium levels. These include:

- Kidney disease
- Thyroid disease
- Malnutrition
- Certain types of cancer

What happens during a calcium blood test?

A health care professional will take a blood sample from a vein in your arm, using a small needle. After the needle is inserted, a small amount of blood will be collected into a test tube or vial. You may feel a little sting when the needle goes in or out. This usually takes less than five minutes.

Will I need to do anything to prepare for the test?

You don't need any special preparations for a calcium blood test or a basic metabolic panel. If your health care provider has ordered more tests on your blood sample, you may need to fast (not eat or drink) for several hours before the test.

Your health care provider will let you know if there are any special instructions to follow.

Are there any risks to the test?

There is very little risk to having a blood test. You may have slight pain or bruising at the spot where the needle was put in, but most symptoms go away quickly.

What do the results mean?

If your results show higher than normal calcium levels, it may indicate:

- Hyperparathyroidism, a condition in which your parathyroid glands produce too much parathyroid hormone
- Paget's disease of the bone, a condition that causes your bones to become too big, weak, and prone to fractures
- Overuse of antacids that contain calcium
- Excessive intake of calcium from vitamin D supplements or milk
- Certain types of cancer

If your results show lower than normal calcium levels, it may indicate:

- Hypoparathyroidism, a condition in which your parathyroid glands produce too little parathyroid hormone
- Vitamin D deficiency
- Magnesium deficiency
- Inflammation of the pancreas (pancreatitis)
- Kidney disease

If your calcium test results are not in the normal range, it doesn't necessarily mean that you have a medical condition needing treatment. Other factors, such as diet and certain

medicines, can affect your calcium levels. If you have questions about your results, talk to your health care provider.

Is there anything else I need to know about a calcium blood test?

A calcium blood test does not tell you how much calcium is in your bones. Bone health can be measured with a type of x-ray called a bone density scan, or dexam scan. A dexam scan measures the mineral content, including calcium, and other aspects of your bones.

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