

# Homocysteine



## Does this test have other names?

Total homocysteine, tHcy

## What is this test?

This test measures levels of homocysteine in your blood. Homocysteine is a type of amino acid. Your body naturally makes it. But at high levels, it can damage the lining of arteries. It can encourage blood clotting. This may raise your risk for coronary artery disease, heart attacks, blood clots, and strokes.

High levels of homocysteine may be caused by low levels of:

- Vitamin B-12 (cobalamin)
- Vitamin B-6 (pyridoxine)
- Vitamin B-9 (folic acid, folate)

High levels may also be caused by:

- Thyroid disease
- Kidney disease
- Psoriasis
- Some medicines
- Some genetic diseases, such as homocystinuria

Routine screening for homocysteine is not advised because of the cost. The treatment that is recommended is taking a multivitamin. This has a low cost and is generally a safe treatment.

## Why do I need this test?

You might have this test to find out if you have coronary artery disease or are at higher risk for this problem. You may also have this test to check for low levels of vitamin B-12 or folate. And you may be tested to see if treatments are working to lower your homocysteine levels. These may include nutritional changes, folic acid, or vitamin B supplements.

## What other tests might I have along with this test?

Your levels of vitamin B-6, vitamin B-12, and folate may also be measured when you have a homocysteine test.

## 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 of homocysteine levels are less than 15 micromoles per liter (mcmol/L). Higher levels are:

- Moderate (15 to 30 mcmol/L)

- Intermediate (30 to 100 mcmol/L)
- Severe (greater than 100 mcmol/L)

Higher levels could mean that you have a B vitamin deficiency. This can mean that you have a higher risk for coronary artery disease.

## 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.

## What might affect my test results?

Taking B vitamin supplements can affect results of the test results.

## 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.

## How do I get ready for this test?

You don't need to do anything to get ready for this test. 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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