Lactose tolerance tests

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Lactose tolerance tests measure the ability of your intestines to break down lactose, a type of sugar found in milk and other dairy products.

See also: Lactose intolerance

How the Test is Performed

Two common methods include:

- Lactose tolerance blood test
- Hydrogen breath test

The hydrogen breath test is the preferred method. It measures the amount of hydrogen in the air you breathe out.

You will be asked to breathe into a balloon-type container. Then, you will be asked to drink a flavored liquid containing lactose. Samples of your breath are collected at set time periods and the hydrogen level is checked. Normally, very little hydrogen is in your breath. But if your body has trouble breaking down and absorbing lactose, breath hydrogen levels increase.

The lactose tolerance blood test looks for glucose in your blood. Your body creates glucose when lactose breaks down. For this test, several blood samples will be taken before and after you drink the lactose solution described above. For information on how a blood sample is obtained, see venipuncture.

How to Prepare for the Test

You should not eat for 8 hours before the test. Avoid strenuous exercise for 8 hours before the test.

How the Test Will Feel

There should not be any pain or discomfort when giving a breath sample.

When the needle is inserted to draw blood, some people feel moderate pain, while others feel only a prick or stinging sensation. Afterward, there may be some throbbing.

Why the Test is Performed

Your doctor may order these tests if you have signs of lactose intolerance.

Normal Results

The breath test is considered normal if the increase in hydrogen is less than 12 parts per million over your fasting (pre-test) level.

The blood test is considered normal if your glucose level rises more than 30 mg/dL within 2 hours of drinking the lactose solution. A rise of 20-30 mg/dL is inconclusive.
What Abnormal Results Mean

Abnormal results may be a sign of lactose intolerance.

A breath test result that shows a rise in hydrogen content of 12 parts per million (ppm) over your pre-test level is considered positive, and means you may have trouble breaking down lactose.

The blood test is considered abnormal if your glucose level rises less than 20 mg/dL within 2 hours of drinking the lactose solution.

An abnormal test should be followed by a glucose tolerance test to rule out a problem with the body's ability to absorb glucose.

Risks

Veins and arteries vary in size from one patient to another and from one side of the body to the other. Obtaining a blood sample from some people may be more difficult than from others.

Other risks associated with having blood drawn are slight but may include:

- Excessive bleeding
- Fainting or feeling light-headed
- Hematoma (blood accumulating under the skin)
- Infection (a slight risk any time the skin is broken)

Alternative Names

Hydrogen breath test for lactose tolerance

References


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