



Sonic  
Genetics

Sullivan Nicolaides Pathology

# Lactose intolerance and genetic testing

Information for patients



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Lactose intolerance affects approximately 75% of the population. The symptoms can be uncomfortable and painful. Sonic Genetics now offers a genetic test to assist in the diagnosis of lactose intolerance in both children and adults.



## What are the signs of lactose intolerance?

Diarrhoea, stomach pain, and a lot of gas (flatulence) after consuming dairy products can be signs of lactose intolerance. Dairy products include milk and foods made with milk.

## What causes lactose intolerance?

### Lactose is a common dietary sugar

Milk and other dairy products contain a sugar called lactose. This sugar is broken down by a protein, an enzyme called *lactase*. In people who are lactose intolerant, lactase either does not work properly or is not produced in sufficient quantity to break down lactose. Lactose that is not broken down and absorbed by the body is converted into acids and flatulence in the large bowel, causing the symptoms of lactose intolerance.

### Genetic causes of lactose intolerance

Many people, particularly those from Asia, Africa, the Middle East, Southern Europe, as well as Indigenous Australians, stop producing lactase after infancy. The lactase required to break down lactose is produced during infancy when it is needed, and then stops being produced as the child matures. This is a normal process. People who continue to produce lactase throughout their lives typically have a genetic variation that tells the body to continue producing it.

## Infections can cause temporary lactose intolerance

An infection in the intestine can cause temporary lactose intolerance. The infection causes a brief loss of the enzyme, lactase. Once the intestine recovers, the production of lactase returns to normal and the body resumes breaking down lactose sugars. This can occur at any age.

## A genetic test to help you understand your symptoms

If a child or adult has stomach pain, diarrhoea or flatulence after drinking milk (or consuming other dairy products), these symptoms may be due to lactose intolerance.

Sonic Genetics provides a test that looks for four genetic variations that control the production of the enzyme, lactase. If the variations are present (lactase persistence), then a lack of lactase is likely to be temporary or the symptoms are due to some other cause. If this genetic variation is absent, then it is unlikely that the person will produce much lactase after infancy and will become lactose intolerant.

This information, together with other assessments, can help your doctor diagnose lactose intolerance.

Note: Calcium is important for the health of your bones. Milk and other dairy foods are an important source of calcium. Do not remove these foods from your diet without seeking advice from your doctor or dietitian.

## Arranging a test

- 1 Your doctor will have completed a standard pathology request form, which you will need to take with you on the day of sample collection.

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- 2 For adults and older children, a sample can be taken at a collection centre.

For children 5 years and younger, an appointment is required at a designated advanced paediatric collection centre.

No special preparation is necessary.

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- 3 Your sample is tested at one of our accredited laboratories supervised by a genetic pathologist.

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- 4 Your result is reported back to your doctor, usually within 5 business days of the laboratory receiving your sample.

## Cost

Medicare does not cover the cost of this test and you will receive an account for payment in full.

Please refer to the Sonic Genetics website [www.sonicgenetics.com.au](http://www.sonicgenetics.com.au) for current test pricing.



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