Lactose intolerance

Lactose intolerance means you have trouble digesting something called lactose that’s in dairy products like milk or ice cream.

Charles, you're unlikely to be lactose intolerant

Lactose intolerance, and other gut feelings

Signs you may be lactose intolerant

If you have bloating, gas, abdominal pain, or diarrhea about 30 minutes to two hours after eating dairy products, you may be lactose intolerant. These symptoms happen because your small

intestine doesn't have enough lactase enzyme to break down lactose.[1] Lactose is a type of sugar found in milk and other dairy products. Enzymes are things that speed up different chemical reactions in the body.

Not everyone with lactose intolerance has all of these symptoms. Symptoms can be different between individuals.

Beyond your genetic results

Some people might not experience symptoms at all, even if they have the genetic variant. Many factors other than genetics can affect how a person reacts to lactose, such as:[1]

- The amount and type of food a person eats
- The amount of lactose in the food a person eats
- A person's unique gut bacteria and other enzymes that break down food
- Other genetic factors

The intensity of symptoms caused by lactose intolerance can range from mild to severe. You could be having a reaction and not notice it. It's also possible that symptoms may not show up until you're older.

What else could be causing your upset stomach?

Bloating, gas, and stomach pain are relatively common and might happen as a result of:[2]

- Sensitivities to foods, such as fiber-rich foods (e.g. beans), spicy foods, or greasy/fatty foods
- An allergy to cow's milk, usually a reaction to certain proteins like casein or whey
- An imbalance of the bacteria that lives in the gut
- Other digestive issues like irritable bowel syndrome, celiac disease, surgeries, or digestive tract infections (which may also lead to a decrease in the amount of lactase in the small intestine)
- Other genetic variants that we did not look at

Minimizing symptoms and maximizing nutrition

While the symptoms of lactose intolerance can be uncomfortable, they can usually be managed. Here are some ways to reduce lactose and still get enough calcium and vitamin D in your diet. Calcium and vitamin D are needed to build and maintain bone strength throughout life.

Reducing lactose

Many people with lactose intolerance can consume small amounts of foods with lactose and not experience symptoms.

About 12g of lactose (the amount you'd find in a cup of milk) should be OK for most people.[1, 3] Some people might find it helpful to try:[2, 4]

- Smaller amounts of food with lactose eaten throughout the day (rather than large amounts all at once)
- Aged dairy products like hard cheeses, which tend to have less lactose
- Fermented dairy products, like yogurt with live cultures
- Lactase supplements, probiotics, or lactose-reduced milk

Other sources of calcium

If dairy isn't going to work for you at all, there are other ways to get calcium.

The following foods are rich in calcium, and can help build and maintain bone strength.[7]

- Dark leafy greens, like spinach, kale, or collard greens
- Fresh or canned fish
- Foods that have had extra calcium added to them, like orange juice or some cereals

What about vitamin D?

Don't forget your vitamin D.
While you can take a supplement, you can also find it in the following foods:[6]

- Fatty fish, like tuna, mackerel, or salmon
- Vitamin D-fortified foods, like orange juice, soy milk, or cereals

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Beef liver

Egg yolks

Can lactose tolerance change with age?

What we looked at and why

We looked at a place in your DNA that influences how much lactase enzyme your body makes.

- People who do not experience lactose intolerance are usually able to digest lactose because they produce enough lactase enzyme.
- People who experience lactose intolerance may not be able to digest lactose because they don't produce enough lactase enzyme.

Lactose intolerance may be caused by other genetic and non-genetic factors.

Scientific details

The *LCT* gene is responsible for making lactase. The position in the DNA that was analyzed is near the *LCT* gene and helps regulate when and how much lactase enzyme the *LCT* gene makes.[8]

DNA marker	Gene	Your result*
rs6754311	Near *LCT*	TT

*Each of your parents provides you with a nucleotide at this position, but we don't know which parent gave you which nucleotide.

How common is lactose intolerance around the world?

1 of 5

"I trust my lactose intolerance results shown above." Do you agree or disagree with this statement?

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Continue

Let us know what you think

Important Information

This test won't tell you whether you're lactose intolerant.

There are other things that might affect whether you can digest lactose. This information is based on science that could change over time as scientists learn more about genetics. We looked at a place in your DNA that research studies have found to be linked with the ability to digest lactose, but future studies may change how this place is interpreted in different populations.[8, 9, 10, 11, 12] Scientists understand lactose intolerance better in some populations than others.

This science is based on studies of people with European genetic ancestry. A few small studies have been done in other genetic ancestry groups, such as African and Middle Eastern.
This information shouldn't be used to make any medical decisions.

Talk to a doctor before making any major lifestyle changes, or if you have any concerns about your health.

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