

Lactose Intolerance

Understanding lactose intolerance

Lactose is the natural sugar present in milk and in foods made from milk, such as yogurt, ice-cream, and cheese. A person with lactose intolerance does not produce enough lactase enzymes to break down lactose in their small intestine.

Symptoms of lactose intolerance range from mild to severe depending on the amount of lactose consumed and the amount a person can tolerate.

Common symptoms of lactose intolerance include:

- Gas
- Bloating
- Abdominal pain
- Loose stool or diarrhea¹

Generally, these symptoms occur between 30 minutes to 2 hours after consuming milk and milk products.

People with celiac disease may be lactose intolerant because their small intestine is damaged. They cannot break down lactose well. However, unlike gluten exposure in people with celiac disease, lactose does not damage your intestine.

What are the different types of lactose intolerance?

- **Primary lactose intolerance:** a person does not produce enough lactase after weaning off breast milk.
- **Secondary lactose intolerance:** this condition can result from damage to the small intestine, such as celiac disease and small intestinal bacterial overgrowth (SIBO). *Lactose intolerance is very common in patients with newly diagnosed celiac disease.*

What happens when the body can't process lactose?

Inadequate secretion of lactase results in undigested lactose; this draws fluid into the intestine causing loose stool and diarrhea. Bacteria which normally live in the colon use the undigested lactose as food. They produce hydrogen gas as a by-product, causing bloating and gas. SIBO, a condition that is linked to celiac disease, can also lead to secondary lactose intolerance.²

How can I test for lactose intolerance?

- Try a low-lactose diet at home for a short time. Improved symptoms can indicate lactose intolerance.
- To clinically diagnose the condition, your doctor may suggest a **Lactose-Hydrogen Breath Test.**³

No two people with lactose intolerance are the same. You may need to avoid lactose entirely while your gut is healing. Sometimes lactose needs to be temporarily restricted after a stomach illness or virus.

- You may start by using lactose-free milk or gluten-free labeled soy, hemp, nut (almond, hazelnut), or rice milk fortified with calcium and vitamin D.

Most people are able to control their symptoms on a low-lactose diet rather than avoid lactose-containing products completely.

- You may choose yogurt and limit the intake of cheese to hard, aged cheeses that are naturally low in lactose.

I think I can tolerate a small amount of lactose. What can I do?

- Notice how much lactose you are eating and how you feel. It may help to keep a log of what you eat and drink and your symptoms.
- Educate yourself on the main sources of lactose. Many prepared foods, such as soups, flavored snacks and deli meats, can contain lactose. Read ingredient lists carefully.

Ingredient Sources of Lactose

Check food labels to see if any of these ingredients appear.

- Milk
- Cheese
- Yogurt
- Ice cream
- Butter
- Margarine
- Buttermilk (may cause fewer symptoms in some people)
- Sweet acidophilus milk
- Milk chocolate
- Cold cuts

- Hot dogs
- Cream
- Some sweeteners
- Dried or powdered milk
- Milk solids
- Lactose
- Whey
- Curds
- Caseinate, casein (a type of milk protein)
- Lactoglobulin (a protein found in milk, after the removal of casein)

Some vitamins, supplements and medications contain lactose (prescription and non-prescription). Read ingredients and talk to your pharmacist.

- Learn how much your body can tolerate. Start with small amounts of low-lactose foods.

Lower-Lactose Foods

- Lactaid milk
- Kefir (fermented drink, usually made from cow or goat's milk)
- Low-lactose cheeses: Parmesan, Swiss, hard Cheddar, Romano, Edam
- Greek style yogurt

Notice which foods you can consume in small amounts and which you need to avoid completely.

Lactose Content of Different Foods

Milk (1 cup)	Milligrams of Lactose
Whole, 2 percent, 1 percent, skim	9 -14
Buttermilk	9 -12
Evaporated milk	24 - 28
Sweetened condensed milk	31 - 50
Lactaid milk (lactose-reduced)	3
Goat's milk	11 - 12
Acidophilus, skim	11
Yogurt, low fat, (1 cup)	4 - 17

Cheese, 1 ounce

Cottage cheese (1/2 cup)	0.7 - 4
Cheddar (sharp)	0.4 - 0.6
Mozzarella (part skim, low moisture)	0.08 - 0.9
American (pasteurized, processed)	0.5 - 4
Ricotta (1/2 cup)	0.3 - 6

Cream cheese	0.1 - 0.8
Butter (1 pat)	0.04 - 0.5
Cream (1 tablespoon)	
Light, whipping, sour	0.4 - 0.6
Ice cream (1/2 cup)	2 - 6
Ice milk (1/2 cup)	5
Sherbet (1/2 cup)	0.6 - 2

Permission to reprint: Lactose Content of Different Foods. Up to Date.

<https://www.uptodate.com/contents/image?imageKey=PI%2F55938>

Accessed November 2025.

- Consider using special products, like Lactaid® or Green Valley™ dairy products which are lactose free.
- Oral lactase tablets may help you digest lactose containing foods and drinks. There are several brands of tablets labeled gluten-free including (but not limited to): Lactaid®, Intoleran Lactase™, Dairy Care™. Some of these tablets must be taken right before consuming a food/drink that contains lactose; others only need to be taken every 12 hours. Read the instructions carefully and speak to your doctor or dietitian to find out if you might benefit from lactase tablets.

What are the benefits of milk?

Drinking milk and milk products can lead to improved bone health, especially in children and adolescents. It is also linked to a reduced risk of heart disease, type 2 diabetes and lower blood pressure in adults.

Milk and milk products provide just 10% of the calories in the American diet, but deliver:

- 58 percent of the vitamin D
- 51 percent of the calcium
- 28 percent of the vitamin A and phosphorus
- 26 percent of the vitamin B₁₂
- a good source of lean protein (nonfat and low-fat choices)

For heart health, choose lower fat versions of milk, yogurt and cheese products instead of whole milk products.⁵

Are certain nutrients missing if I avoid milk products?

If you limit or avoid milk products based on tolerance or preference, your body may be lacking certain nutrients (such as calcium and vitamin D).⁴ In this case, add non-dairy foods high in calcium to your diet. There are very few vitamin D-rich food sources in the American diet. See Calcium and Vitamin D Rich Food Sources and Supplements on CeliacNow.org.

Lactose-reduced and lactose-free dairy products contain the same amount of calcium as lactose-containing dairy products. Lactose intolerance does not affect how much calcium your body absorbs from food and beverages.

Gluten-free seed, nut and rice “milks” may not be nutritionally complete. Look carefully for the amount of calcium, vitamin D, and protein they contain. The word “calcium” will be included in the ingredients list if a food has been fortified with calcium. Since vitamin D is also essential for bone health, try to find calcium-rich foods that are also fortified with vitamin D.

Ask your dietitian to help you balance your diet to get all the nutrition your body needs.

How do I calculate the amount of calcium per serving on a food label from daily value to milligrams?

- Look at the Nutrition Facts label. If the amount of calcium is not already listed in milligrams (mg), do the following:
- Find the percentage (%) of calcium in the product. For example: 25% calcium in one cup,
- Remove the % sign and add a “0” to find the number of milligrams.
- 25% calcium = 250mg of calcium in one cup.

Take Home Messages:

- If you were recently diagnosed with celiac disease, you may have lactose intolerance.
- If you have removed all the gluten from your diet and you are still having symptoms, you may have lactose intolerance.
- There are several ways to test for lactose intolerance – a trial at home or the hydrogen breath test is the most common.
- Keep a food diary or avoid lactose for a week to help you figure out if you have lactose intolerance. You may need to limit your intake of lactose while your intestine heals.
- Lactose intolerance can usually be controlled on a low-lactose diet. Complete avoidance of lactose is usually not necessary.
- For many, the ability to tolerate lactose often slowly returns as the intestine heals. This often allows most or all dairy products to be added back into one’s diet.

- If you do not tolerate or do not like milk products, there are many dairy-free products to choose from that contain calcium. There are very few vitamin D-rich food sources in the American diet.
- You may be asked to take calcium and vitamin D supplements if your low lactose diet does not provide enough of these nutrients.
- As always, talk to your dietitian or doctor when making any changes in your diet to avoid missing any important nutrients.

Resources

Lactose Intolerance: The Basics. Up to Date.

https://www.uptodate.com/contents/lactose-intolerance-the-basics?search=lactose%20intolerance%20patient%20info&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1.. Accessed November 2025.

Lactose Intolerance- Topic Overview. WebMD. 2021

<https://www.webmd.com/digestive-disorders/digestive-diseases-lactose-intolerance##1>

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