

Identify & navigate: Lactose intolerance




Lactose is a naturally occurring sugar found in many dairy foods. For lactose to be absorbed from the intestine into your bloodstream it needs to be broken down into two single sugars. This is the job of an enzyme called lactase, which is found on the lining of the small intestine.

A large percentage of adults don't make enough lactase and, therefore, lactose isn't absorbed efficiently in the intestine. The prevalence of lactose intolerance varies widely between populations. For instance, lactase deficiency occurs in as few as 5% of North Europeans and North Americans of European origin, yet up to 90% of Asian, African and Caribbean adult populations are affected.

COMMONLY REPORTED SYMPTOMS

- Bloating
- Loose stools
- Wind
- Abdominal pain

PLEASE NOTE: This lactose resource is not a standalone document. It is part of the Bloating Masterclass, which is why you will find references to other resources throughout, including the:

- [Debloating Guide](#) , which details the strategies for each of the 22 diet and lifestyle triggers
- [Bloating Tracker](#) , which guides you through the process of determining your type of bloating and your potential triggers
- [Debloat Action Plan](#) , which brings together your personalised plan, including strategies to implement and longer term solutions

Step 1: Identify lactose in your diet

Could lactose be triggering your symptoms? Let's find out!

Please refer to the comprehensive list of lactose-containing foods on page 2, to help you become more aware of sources in your diet.



Overview of food and drink sources

FOOD GROUP	HIGHER LACTOSE-CONTAINING	LOWER LACTOSE AND LACTOSE-FREE
Dairy and alternatives	<p>All varieties of animal milk, including cow, goat, sheep, buffalo (including reduced fat, powders, heat-treated, etc.)</p> <p>Dairy desserts, e.g. ice cream, custard, cheesecake, cream</p> <p>Yoghurts (some may be better tolerated but best to restrict during Steps 2 and 3)</p> <p>Cheeses: Processed soft cheese, cottage cheese, cheese spreads, crème fraîche</p>	<p>Lactose-free versions of cow's milk, yoghurt and ice cream</p> <p>Dairy alternatives: Oat, soya, flaxseed, sesame, rice, pea, coconut, quinoa, hemp, potato and nut (e.g. almond, hazelnut) (opt for calcium-fortified), lactose-free cream cheese</p> <p>Hard cheese: Cheddar, mozzarella, Swiss, Parmesan</p>
Grains	<p>Containing dairy-based filling, e.g. custard Danish, milk rice pudding</p> <p>Containing milk in the recipe, e.g. pancakes, cakes</p>	Grains are naturally lactose-free
Beans, pulses, fish, eggs, meat and other proteins	Containing milk or cheese-based fillings/sauces, e.g. frittata, lasagne, white or béchamel sauce, quiche	<p>Plain beans, pulses, fish, eggs</p> <p>All meats and nuts are naturally lactose-free</p>
Vegetables	Containing milk, e.g. cauliflower in white sauce, mashed potato	Plain vegetables and fruits are naturally lactose-free
Fruit	Containing milk-based drinks, sauces or yoghurt, e.g. fruit smoothies with milk or yoghurt	Plain fruits are naturally lactose-free
Miscellaneous	<p>Milk- or dairy-based liqueurs</p> <p>Milk and white chocolate</p> <p>Some whey-based protein powders and meal replacements</p> <p>Many packet soups, some sauces and gravy mixes</p>	<p>Butter, ghee, cocoa butter, shea butter</p> <p>Protein-isolate powders, dairy-free protein supplements</p> <p>Foods labelled 'suitable for vegans' and 'dairy-free'</p>
Medicines and supplements	Although some medications contain lactose as a filler, the quantity is not sufficient to cause symptoms in those with an intolerance	



Based on the above information, do you have lactose in your diet?

Yes/maybe/unsure > Go to **Step 2: Bloating Tracker** 🔍

No > Return to the **Debloating Guide** 📄 to review other triggers.

i DID YOU KNOW!

Food intolerance and allergies are both types of food hypersensitivities but are very different. Unlike food intolerances, food allergies occur when the immune system mistakenly sees different components of food as a threat. As a result, the symptoms associated with a food allergy are typically more severe than those of food intolerances and can include difficulty breathing, a racing heart rate and skin rashes as well as digestive issues. Food allergies are less common, affecting around 1-2% of adults, and should be diagnosed only by a suitably qualified clinician. If you suspect an allergy, consult an allergy-specialist dietitian or an allergist.

Step 2: Review your Bloating Tracker 🔍

With your food detective hat on, use the prompts below to scrutinise your **Bloating Tracker** 🔍.

Use a highlighter to identify occasions of burdensome bloating.

Next, look for lactose-containing foods anytime between 0-4 hours prior to symptoms occurring.

Write down any patterns you find:



Can you see a pattern between lactose and your symptoms?

Yes/maybe/unsure > Go to **Step 3: Try the lactose challenge.**

No > Return to the **Debloating Guide** to review other triggers.

CAUTIONS

If you have a history of disordered eating, please seek support from a registered dietitian before implementing any of these dietary strategies. This is because, despite good intentions, focusing on specific aspects of food can trigger negative thoughts and relapse in some.

If you have been avoiding dairy for several years and have a history of atopic symptoms (i.e. eczema, asthma or hay fever), it is recommended that you do the lactose challenge only with the support of an allergy-specialist dietitian or an allergist.

Step 3: Take the lactose challenge

As covered in **Lesson 9 – Dietary components, Digestive limits**, unlike a lot of other food intolerances, lactose intolerance is fairly easy to test for because the symptoms tend to be reproducible within 4 hours of ingesting a moderate amount of lactose.

Aim to do your lactose challenge blinded, which means that you are unaware if you are having the lactose or a placebo product (i.e. a food that doesn't contain the lactose). This comes back to the gut:brain axis. Remember: the communication between the two is bidirectional, meaning the gut can influence the brain, and vice versa.


Studies have shown that if we perceive that we have a food intolerance, our brain can send messages to our gut inducing gut symptoms when we eat the suspected culprit. This phenomenon is known as the nocebo effect – the ability of negative expectations to manifest physical symptoms.



Improving tolerance to lactose

1. 48 hours prior to each challenge swap all lactose-containing foods for low lactose foods (see table on page 2). Following a low lactose diet for 48 hours prior to and during the challenge will ensure your trial is more accurate.

2. To prepare for the challenge, you will need:

- a. 400mls of low fat cow's milk (active challenge).
- b. 400mls of low fat lactose-free cow's milk (placebo challenge).
- c. A loved one or friend. They will be in charge of blinding you to the different challenges. Ask them to disguise the milk so you can't tell the difference between the active and the placebo. Mixing the milks with either hot chocolate powder or blending with up to 80g fruit can help blind you to any taste differences in the milks – although be sure they don't add in any other suspected culprits in doing so (e.g. high fructose fruits or ingredients – see **Dietary Components: Fructose** in the **Debloating Guide** ).

3. Begin the challenge:

- a. Continue on a low lactose diet during and for 24 hours following the challenge.
- b. Test the milks one week apart, on the same day and ideally time. So if you choose a Wednesday evening for the first challenge, stick to the following Wednesday evening for the second challenge. This will help keep the testing conditions the same.
- c. Before you are unblinded, complete both active and placebo challenges, even if you get symptoms with the first challenge.
- d. After you have completed both test drinks, ask your 'assistant' to reveal which test drink was which.

BREATH TESTS

Unlike other food intolerances, you can test for lactose intolerance using breath tests. If you struggle to drink milk, then this might be the preferred option for you. Talk to your healthcare professional or book in with one of our specialist registered dietitians who can help arrange a private lactose breath test with a valid testing facility.



Did you experience any of the following symptoms within two hours of the blinded challenges?

- Bloating
- Distension
- Loose stools
- Excess wind
- Abdominal pain/ discomfort

Yes, to just the active challenge > It's likely you have lactose intolerance, **Go to [Step 4: Reduce lactose intake in your diet.](#)**

Yes, to both the active and placebo > Your symptoms are unlikely to be due to lactose intolerance. **It is worth discussing your results with an allergist or allergy specialist dietitian who may consider the protein component of milk.**

Yes, only to the lactose-free challenge > You don't have lactose intolerance. Your response may be due to the nocebo effect, whereby your thoughts are triggering your symptoms via the gut:brain axis. **It's worth challenging any food perceptions and talking to your healthcare professional about cognitive behaviour therapy.**

No > **Return to the [Debloating Guide](#) to review other triggers.**



Step 4: Reduce lactose in your diet

Continue on a low lactose diet for a further 2 weeks. If your symptoms continue to improve, then it helps to confirm that you have lactose intolerance, but bear in mind that it may not be forever. Reassessing your tolerance in 3 months' time by repeating Step 3, is a good idea.

It's also worth noting that most people with lactose intolerance can (and are encouraged to) continue to enjoy small amounts of lactose throughout the day without symptoms (around 3g of lactose per sitting and up to 12g across the day).

Improving tolerance to lactose

- Having small amounts regularly can help increase your tolerance. This is thought to be a result of your gut microbes adapting to make up for your missing lactase enzymes. It may even act as a prebiotic – a kind of fertiliser for your 'good' microbes.
- Eating lactose-containing foods as part of a meal rather than on their own, e.g. yoghurt with granola, has been shown to help improve tolerance.
- Fermented milk products, including live yoghurt and kefir, typically contain less lactose compared to their equivalent non-fermented forms, such as milk. However, the amount differs by brand, so it's worth asking specifically, or trialling at a dose that works for you.
- Consider supplementing your diet with lactase enzymes when you eat or drink foods with notable amounts of lactose. These supplements are available as both tablets and drops from most pharmacies. Follow the supplement guidance – most recommend taking the enzyme with the first bite or sip of lactose-containing meals or drinks.



Overview of food and drink sources

PRODUCT	LACTOSE (g/100ml or g)
Cow's milk	4.5
Condensed milk	12.5
Milk powder	53.0
Goat's milk	4.5
Sheep's milk	5.0
Cream	2.0
Creme fraiche	2.5
Imitation cream	2.5-7.0
Firm cheese e.g. cheddar	Less than 1.0
Processed cheese e.g. cheese spread	4.5-7.5
Live yoghurt/kefir	4.5
Ice cream	5.0
Rice pudding	4.0
Custard	5.0
Chocolate (milk, white)	9.0-10.0
Chocolate (dark, 70%)	Less than 1.0
Butter	Less than 1.0

Source: McCance & Widdowson (page 129, 'Eat Yourself Healthy').

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DID YOU KNOW?

There are two main forms of lactose intolerance:

- 1. Primary lactase deficiency:** This is the inherited form and typically presents between the ages of five and twenty, as lactase production decreases. This is the more common form of lactose intolerance.
- 2. Secondary lactase deficiency:** Occurs as a result of a gut illness or damage to the small intestine. There is a loss of lactase production, meaning there are fewer enzymes available to digest the lactose. Examples of causes include gut infections, undiagnosed coeliac disease and active Crohn's disease. The good news is that most often this type is short term. Within a few months, once the intestine has healed, the levels of lactase return to normal.

Step 5: How to meet your calcium needs despite lactose intolerance

Reducing the amount of lactose in your diet can also make it harder for you to meet your calcium requirements. Calcium is an essential mineral that helps muscles contract, the heart to beat and maintains strong bones.

Low lactose sources of calcium

SOURCE	QUANTITY	CALCIUM (mg)*
Hard cheeses	30g	220
Lactose-free cow's milk	200ml	240
Calcium-fortified plant-based milks and yoghurts	200ml	240

*Calcium content can differ between products (check the product label).

Source: McCance and Widdowson.

Table continued next page.



SOURCE	QUANTITY	CALCIUM (mg)*
Tofu (calcium-set, check label)	60g	200
Grain products made with fortified flour	30g (typical serving)	130
Fish-containing edible bones (e.g. sardines, salmon and pilchards)	60g	100–250
Green vegetables such as spring greens and broccoli	80g	30

*Calcium content can differ between products (check the product label).

Source: McCance and Widdowson.

i HOW MUCH CALCIUM DO YOU NEED EACH DAY?

The recommendations in most countries suggest at least 700mg per day for adults, 1,250mg for breastfeeding mums and 1,200mg for women past the menopause. For people with coeliac disease, weak bones (osteoporosis) or inflammatory bowel disease, most countries recommend at least 1,000mg/day.


Combining vitamin D-containing foods, such as oily fish or mushrooms exposed to sunlight, with a calcium-containing food, such as dairy, tofu (set in calcium, check the label) or spring greens, is a tasty way to support strong bones.




Next steps

What has been the impact of testing for lactose intolerance using this strategy?

No improvement

If you've noticed no improvements, be sure to reintroduce and cross it off on your **Debloat Action Plan**  as a trigger that is not applicable to your own bloating. Although it can feel disheartening, remember ruling out triggers means you're narrowing them down, and you are one step closer to your solution(s). Remember this sort of information will be really helpful if you do need 1:1 support from a healthcare professional.

Improved bloating but still need other strategies

If you've noticed improvements but continue to have issues, please revisit the **Debloating Guide**  to review additional triggers. Keep in mind that for some people bloating requires a multi-strategy approach.

Resolved burdensome bloating

If this has helped you master your burdensome bloating, that's great to hear! Ensure you're still following a balanced diet to nourish you and your gut microbes, and make sure you lift any unnecessary food restrictions.

SIGN UP TO THE BLOATING MASTERCLASS

If you think your bloating goes beyond lactose intolerance or if you want a detailed structure to follow, it's time to take action.

Easy to follow with science-backed approaches, the Bloating Masterclass introduces the 3T method to reduce the confusion and complexity surrounding bloating. You'll be guided through by the experts to develop and implement your own personalised Debloat Action Plan. Take control of your bloating once and for all.



SCAN TO
GET STARTED

