

# Lactose Intolerance: a GP's view

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## Food intolerance – a 21st Century disease?

How many of us, when we were medical students, thought of allergies only in terms of antibiotics and life-threatening anaphylaxis? Now it seems as if hardly a surgery goes by without one patient or another coming in to 'tell' us about their food allergies or intolerances.

Quite often, they have sought advice from a private nutritionist (most patients are unaware of the difference between nutritionists, who are not required to have any formal qualifications, and registered dietitians, who are subject to requirements for both formal qualification and ongoing education). All too often, they have been told that they have an allergy to wheat or dairy – or possibly both. The solution, they are told, is a radical overhaul of their diet and endless (expensive) dietary supplements.

## Allergy or intolerance?

Perhaps the most irritating aspect of the rise in supposed food intolerances is the way in which patients confuse intolerance and allergy. The symptoms of food intolerance are reproducible, but tend to be limited to the gastro-intestinal tract, as we will see below. In lactose intolerance, patients may have some residual lactase activity – these patients may experience no symptoms from a splash of milk in their tea, but get classic gastro-intestinal symptoms if they drink a glass of milk.

Food allergy is an inappropriate or exaggerated immunological reaction to a variety of substances that are found within food, and the response occurs with the smallest exposure. Intolerance tends to be unpleasant, but allergy can be fatal.

## Lactose intolerance – what and why?

Lactose is something of a dietary anomaly. In fact, lactose intolerance in adulthood might almost be seen as the 'natural' state. As babies, our first food is milk, and we all use the enzyme lactase to break down lactose, the predominate sugar in milk. In most animals, levels of lactase production drop naturally after weaning, and it is only through evolution that humans, the only mammals to drink milk in adulthood, have maintained lactose tolerance into adulthood. Caucasians, with their long history of dairy farming, have the highest levels of lactose tolerance, and Asians the lowest.

Although lactose intolerance is less common among Caucasians than any other ethnic group, it still affects about 5% of adult Caucasians. Among Afro-Caribbean adults the incidence is about 80% and among Asian adults, about 90%.<sup>1</sup> However, lactase production declines with age in all races, and the prevalence is likely to be higher in over 50s of any ethnic group.<sup>2</sup> It is estimated that in Britain lactose intolerance may affect up to 15% of the population.

Far less commonly, temporary lactose intolerance can result from damage to the intestinal lining, where lactase is produced. Causes include inflammatory bowel disease, severe gastroenteritis, coeliac disease or cancer.

Lactose intolerance is not the same as cow's milk intolerance. Although the symptoms may be similar, the treatment,



Lactose intolerance can cause abdominal pain and diarrhoea. It is always worth considering as a contributory factor amongst people diagnosed as having irritable bowel syndrome.

For some people reduction of lactose intake can have major clinical benefits in this situation.

This can be achieved by reducing lactose intake in the diet. Substitution of dietary items with significant lactose content by lactose-free products can help. Another approach is to take lactase enzymes with lactose-containing foods.

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however, is not – cow's milk intolerance involves milk proteins, and switching to goat's milk will usually help the cow's milk intolerant patient. Goat's milk, however, also contains lactose, and the switch will do nothing to relieve the lactose intolerant patient.

## Lactose intolerance – when should we think of it?

The most common symptoms of lactose intolerance appear between half to two hours after ingesting lactose, and include:

- Nausea
- Abdominal pain
- Bloating
- Flatulence
- Diarrhoea

If this list appears to bear a remarkable resemblance to the list of common symptoms of IBS, it is because the two do indeed present very similarly. It is estimated that up to 80% of people diagnosed with IBS in fact have lactose intolerance,<sup>4</sup> so it may be worth excluding this condition before making a diagnosis of IBS.

Britain is now a thoroughly multi-cultural society, and even patients who appear Caucasian may be of mixed race, increasing their chance of lactose intolerance. Likewise,

we live in an ageing society, and a rising incidence of lactose intolerance is likely to be a reflection of this. Fortunately, unlike many other conditions affecting our older patients, lactose intolerance is fairly easy to diagnose and simple (and satisfying) to treat.

## Lactose intolerance – how do we diagnose it?

The vast majority of our patients trust us and value our opinion, we are usually the first port of call for patients suffering symptoms such as those experienced in lactose intolerance. Vague, intermittent abdominal symptoms in an otherwise healthy patient can be frustrating to deal with, but the patient can often confirm (or discount) the diagnosis of lactose intolerance using a simple Elimination Challenge Diet.

The diet involves removing all milk, milk products and other lactose-containing foods for two to three weeks, then reintroducing them in small measured stages. If the symptoms disappear with dietary elimination and reappear on reintroduction of lactose, lactose intolerance is highly likely.

The biggest challenge with this diet is identifying and avoiding 'hidden' sources of

lactose, such as margarine; bread and other baked goods; instant soups; crisps and snacks; biscuit, cake and pancake mixes; processed breakfast cereals and even the covering of many medications. The patient can access details of all these foods, and of how to undertake the Elimination Challenge Diet, via the website [www.lactofree.co.uk](http://www.lactofree.co.uk).

## What if it is lactose intolerance?

If this confirms the diagnosis, the practice nurse can offer invaluable support in helping the patient to adjust their diet, working out how much lactose they can tolerate and ensuring that they do not risk nutritional deficiencies as a result.

Elderly patients in particular may be at risk of calcium deficiency if they cut out all milk products. Fortunately, hard cheeses (such as parmesan and cheddar) contain very little lactose. Lactofree® is a free from lactose dairy drink\* made by filtering semi-skimmed milk to remove half the lactose, then adding enzymes to break down the lactose into easily absorbed lactose and galactose. It is the only lactose-free dairy drink available in the UK, resembling semi-skimmed milk very closely in taste, and able to minimise the disruption involved in a lactose-reduced diet. Lactofree® whole milk and yogurt is also now available, providing all the nutritional benefits of cow's milk, but without the symptoms.

## References

- 1 British Nutrition Foundation. Lactose intolerance. 2000. (<http://www.nutrition.org.uk/data/ldj50a> and [data/ldj169](http://www.nutrition.org.uk/data/ldj169))
- 2 Sahi T. Genetics and epidemiology of adult-type hypolactasia. *Scandinavian Journal Gastroenterology* 1994; 202 (295): 7-20.
- 3 Rao DR, Bello H, Warren AP, Brown GE. Prevalence of lactose maldigestion: influence and interaction of age, race and sex. *Digestive Diseases and Science* 1994; 39 (7): 1519-1524.
- 4 Matthews S et al. Systemic lactose intolerance: a new perspective of an old problem. *Postgraduate Medical Journal* 2005; 81: 167-173.

\*We make every effort possible to ensure that Lactofree products contain no lactose. We carry out rigorous scientific testing using the most accurate UKAS accredited tests available which enable us to detect lactose at the trace level of 0.05%. At this detection level our tests show that there is no lactose present in Lactofree. Please refer to [www.lactofree.co.uk](http://www.lactofree.co.uk) for more information.

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For more information, to request patient leaflets or download a copy of the Elimination Challenge Diet visit [www.lactofree.co.uk](http://www.lactofree.co.uk)

