

LACTOSE INTOLERANCE

A common disorder, easily managed

It is easy to tire of the growing number of people self-diagnosing intolerance to certain foods. However, be aware that lactose intolerance is a common disorder and a diagnosis worth considering as identifying sufferers can lead to successful symptom management.

This article looks at the prevalence of lactose intolerance and how to identify patients with the disorder. Many of these patients may have presented with recurring gastrointestinal symptoms and because the symptoms of lactose intolerance and irritable bowel syndrome (IBS) are very similar, misdiagnosis is likely. Once diagnosed, successful management may be aided by new replacement dairy drinks and other dietary modifications outlined below.

Prevalence is high

Lactose intolerance is more common in certain countries and ethnic groups. In Northern Europe, up to 15 per cent of the population are thought to suffer from lactose intolerance (1). In other European countries, the prevalence varies considerably with figures ranging from 15–75 per cent. In the rest of the World, especially among Black and Asiatic communities where milk is not traditionally consumed as part of the typical adult diet, the prevalence of lactose intolerance can be almost 100% (2).

Gastrointestinal symptoms prevail

Lactose, a disaccharide consisting of glucose and galactose, is found naturally in milk and other dairy products. Lactose intolerance is characterised by adverse gastrointestinal symptoms caused by decreased activity of lactase, an enzyme located in the small intestine that hydrolyses lactose to its components – glucose and galactose.

The main symptoms of lactose intolerance include: flatulence, bloating, diarrhoea and abdominal pain caused by undigested lactose passing from the small intestine into the colon. Bacteria in the colon ferments the unabsorbed lactose producing short chain fatty acids and gases (carbon dioxide, hydrogen and methane) which result in flatulence, bloating and distension pain. The diarrhoea is a result of the unabsorbed lactose drawing water into the lumen of the bowel.

Symptoms normally begin 30 minutes to two hours after eating or drinking foods containing lactose.

Intolerance may be transient or permanent

Lactose intolerance normally appears in adults as lactase levels begin to decrease after childhood. Some children are born with lactose intolerance, but this is rare.

Lactose intolerance can be acquired in two ways:

- 1) Primary lactase deficiency is a genetically inherited decrease in lactase activity, normally becoming apparent between the ages of five to 20 years. Complete loss of lactase activity is rare but decreases between 10–30 per cent of the initial activity are common. The decrease in lactase activity is permanent and can not be induced by consuming large quantities of lactose.
- 2) Secondary lactase deficiency results from a temporary decrease in lactase activity due to damage to the lining of the intestinal wall where lactase is produced. This damage can be caused by inflammatory bowel disease (IBS), a severe bout of gastroenteritis, malnutrition, uncontrolled coeliac disease, cancer or medication. Lactose intolerance symptoms will normally subside when the

intestinal wall recovers from the injury. Secondary lactose intolerance may occur in babies and young children.

Correct diagnosis can be a relief

Although not usually dangerous, the symptoms of lactose intolerance can be uncomfortable and unpleasant and have a considerable lifestyle impact. Considering a diagnosis of lactose intolerance, and identifying sufferers, will allow you to eliminate gastrointestinal distress in many patients. This can be particularly satisfying when dealing with patients who present with recurring gastrointestinal distress including many who may have a prior diagnosis of IBS and were refractory to treatment. Some IBS treatments contain lactose, which compounds problems in misdiagnosed patients. For patients, a diagnosis followed by suitable advice will help them to understand their recurring gastrointestinal distress and control these symptoms in the future.

‘Lactofree is a new 99.95 per cent lactose-free dairy drink that can be used to replace ordinary milk in the everyday diet.’

If lactose intolerance is suspected, a lactose elimination then reintroduction challenge should be performed. Patients should be helped to remove all milk, milk products and other lactose-containing foods from their diet for two to three weeks; if symptoms disappear and appear again after reintroduction of lactose into their diet, lactose intolerance is likely.

This challenge should be conclusive enough to determine whether avoidance or reduction of lactose-containing foods is necessary. However, lactase activity can be measured directly by intestinal biopsy and perfusion, or indirectly by measurement of blood glucose or breath hydrogen after ingestion of lactose.

Management provides effective symptom control

Although there is no treatment for lactose intolerance, symptoms can be avoided by controlling the amount of lactose in the diet. In principle, the symptoms of lactose intolerance are dose-dependent: the larger the amount of lactose ingested the more pronounced the symptoms. However, slowing gastric emptying will improve lactose absorption, so sufferers should aim to ingest lactose as part of a meal.

The amount of lactase that an individual can tolerate varies from person to person. Complete avoidance of dairy products is not always necessary and it is important to encourage sufferers not to avoid all milk and milk products, if possible, as they are important sources of essential nutrients such as protein, calcium and riboflavin.

Alternative dairy drinks are available

Sufferers should be advised to eat and drink alternatives to everyday foods that are high in lactose. Most people are aware of soya-based products but there are other dairy alternatives that many find more palatable as they resemble milk in texture and flavour.

Lactofree is a new 99.95 per cent lactose-free dairy drink that can be used to replace ordinary milk in the everyday diet. The drink is made by



Lactofree – an attractive alternative to milk for sufferers of lactose intolerance

filtering semi-skimmed milk to remove half of the lactose and then enzymes are added to break down the remaining lactose into glucose and galactose that can be easily absorbed in the gastrointestinal tract.

Replacing milk with products like Lactofree, that closely resemble milk, helps to minimise the disruption to sufferers diets and helps eliminate the feeling that they are significantly altering their existing diet.

Further advice for sufferers

Other advice that can help sufferers manage their symptoms:

- Lactase preparations can be added in liquid form to milk products or taken as tablets before eating lactose-containing foods.
- Hard cheeses, such as cheddar and parmesan, contain very little or no lactose.
- Yoghurt contains a similar amount of lactose to milk but is easier to digest, possibly due to the bacteria used in production.
- Check food labels for milk or other lactose-containing ingredients. Some ingredients may contain lactose as a component, such as whey powder and dried skim milk.

Reference

1. American Family Physician www.aafp.org/afp/20020501/1845.html
2. British Nutrition Foundation www.nutrition.org.uk/home.asp?siteId=43§ionId=850&subSectionId=403&subSectionId=321&parentSection=299&which=1

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