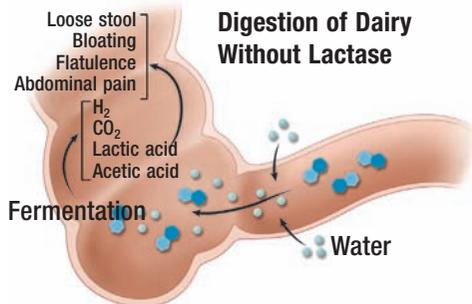
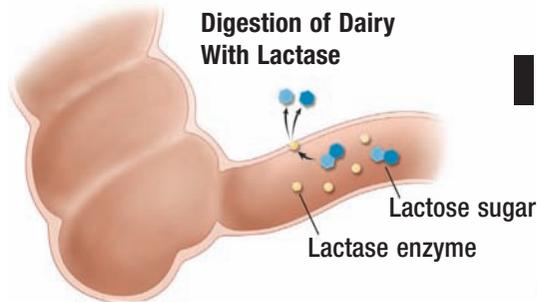


Lactose Intolerance



Trouble Digesting Milk Sugar

Lactose, a natural sugar found in milk and products made from milk, is digested in the body by an enzyme known as lactase. If a person does not produce sufficient amounts of lactase, lactose can be difficult to digest. In some people, this problem results in a condition known as lactose intolerance.

A deficiency in lactase usually is hereditary and develops slowly from early childhood. Although lactase levels may be low, the symptoms of lactose intolerance may not appear until adolescence or adulthood. In other cases, lactase deficiency can be due to other conditions, such as an intestinal disease or chemotherapy.

Symptoms of lactose intolerance can range from nonexistent or mild to serious discomfort. Common complaints include bloating, gas, nausea, abdominal pain, and diarrhea after eating foods that contain milk or milk products. Lactose intolerance can mimic many other conditions that cause similar symptoms. As a result, it should be diagnosed by a doctor, who may begin by eliminating all milk and milk products from the diet for a period of time to look for improvement. The diagnosis can be confirmed in adults with a hydrogen breath test.

Treatment is aimed at reducing symptoms by lowering or eliminating the amount of lactose in the diet. This includes avoiding the wide variety of processed foods that contain milk and milk products as stabilizers. Even OTC and prescription medications may contain lactose as inactive ingredients. If foods that contain lactose are eliminated and symptoms continue, a doctor could recommend supplementing the diet with nonprescription lactase enzyme tablets or drops. Avoiding milk and dairy products may mean that people who are lactose-intolerant require calcium and vitamin D supplementation.

Avoidance of Dairy Products Is the Cornerstone of Treatment

Lactose intolerance is a relatively common condition estimated to affect between 30 and 50 million people in the United States. People with this condition have trouble digesting milk sugar (lactose) due to a relative lack of the enzyme *lactase*. Lactase, found in the lining of the small intestine, is needed to break down lactose sugar into two simple sugars—glucose and galactose—for easy absorption.

Not a Milk Allergy

Unlike people with true milk allergy, who must avoid milk or dairy products altogether, those with lactose intolerance can often ingest small amounts without experiencing serious symptoms. In fact, after the diagnosis of lactose intolerance is confirmed, the doctor may recommend eliminating the offending products from the diet for a period of time, then slowly reintroducing small amounts of food with lactose to see which foods cause symptoms. Some people with lactose intolerance are able to eat certain dairy products without symptoms, especially milk products with lower lactose levels, such as certain cheeses and yogurt. Others are so sensitive that they react with symptoms after eating even the smallest amount of milk-related products.

Lactose intolerance is likely an inherited trait and is relatively common in Native Americans, Asians, and Africans. Symptoms are often absent until early adulthood, when the levels of lactase enzyme become so low that symptoms begin to appear after ingestion of lactose-containing foods.

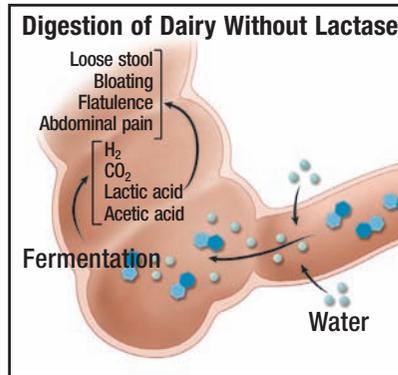
Diagnosing and Treating the Problem

The most common symptoms usually appear within an hour or two after ingestion of lactose-containing foods. These include nausea, abdominal cramping, bloating, gas pains, and diarrhea. These symptoms are similar to many other conditions, so the correct diagnosis is needed to determine the appropriate treatment. The process of diagnosis begins with the elimination of all milk and milk-related products from the diet to look for improvement in symptoms. After several weeks, these foods are reintroduced to see if symptoms return. In adults, a confirmation test for lactose intolerance known as the *hydrogen breath test* can be used. During this test, the amount of hydrogen in the breath is measured after the patient drinks a lactose-containing drink. Since lactose not broken down by digestion gives off hydrogen gas, this test can help confirm the relative lack of lactose digestion by lactase. Some foods, drugs, and cigarette smoke can interfere with this test.

Unfortunately, there is no treatment that will increase the amount of lactase manufactured in the body. The key to treatment in patients with lactose intolerance is to identify the foods that cause symptoms. Once these foods are eliminated from the diet, the symptoms become manageable. Sometimes foods, especially processed foods, contain hidden milk products. Product labels should be read carefully to detect ingredients such as “milk solids” or “whey.” Even nondairy products such as creamers or whipped toppings can contain “milk derivatives” or “caseinate” ingredients that contain small amounts of lactose. Many foods are now labeled “lactose-free” or “lactose-reduced,” which may be good choices for people with little or no lactase production.

Although the cornerstone of treatment is avoidance of lactose-containing foods, some doctors recommend a trial of nonprescription lactase enzyme supplements. For other people, the gradual introduction of small amounts of low-lactose foods, especially if eaten with regular meals, can help the body adjust to the lactose and lessen annoying symptoms.

If you have questions about lactose intolerance or nonprescription lactase supplements, your pharmacist can help.



The lactase enzyme is needed to break down lactose in the colon into simple sugars for easy absorption.