

Understanding Lactose Intolerance

What is lactose intolerance?

Lactose intolerance is the inability of the body to digest lactose, which is the major sugar found in milk. It is caused by a shortage of an enzyme called lactase, which helps the body digest the lactose found in milk and other dairy products. Roughly 50 million Americans are lactose intolerant. As many as 75 percent of African-Americans, Jewish, Native American, and Mexican-American adults have this condition. Up to 90 percent of Asian-Americans are lactose intolerant.

What are the symptoms of lactose intolerance?

Intestinal discomfort after eating or drinking dairy foods is the main symptom of lactose intolerance. Common reactions include nausea, cramps, bloating, gas, and diarrhea. These symptoms may begin as soon as a few minutes and up to a few hours after eating dairy foods. Symptoms can be mild or severe and may vary depending on how much and what type of dairy food is consumed.

Is lactose intolerance different than a milk allergy?

Yes. Lactose intolerance is not an allergy to milk. Although the symptoms can be similar, milk allergy is an immune response that is triggered by the immune system.

What causes lactose intolerance?

Deficiency of an enzyme in the body called lactase is the cause of lactose intolerance. After about 2 years of age the body begins to produce less lactase, resulting in problems digesting lactose. The symptoms of lactose intolerance are often not noticeable until later in life. Lactose intolerance also occurs when there has been an injury to the small intestine such as in celiac disease or inflammatory bowel disease.

How is lactose intolerance diagnosed?

Many people identify lactose intolerance based on their symptoms. However, it can be similar to other digestive problems so is hard to pin down. The first step in diagnosis is to remove all dairy foods from the diet to see if the symptoms go away.

Medical tests that can diagnose lactose intolerance. The lactose tolerance test requires fasting before the test and then drinking a liquid that contains lactose. Blood samples are taken over a 2-hour period to measure the patient's blood glucose level. This measures how well the body is able to digest lactose.

Another test is the Hydrogen breath test. A person drinks a lactose-loaded beverage and the breath is analyzed at regular intervals. Elevated levels of hydrogen in the breath indicate improper digestion of lactose.

I know milk is high in calcium. How can I get enough calcium without drinking milk or eating milk products?

Calcium is an important nutrient and dairy foods are the most easily accessible source of these foods. Many people with lactose intolerance can tolerate dairy foods in small amounts. For example, put a small amount of milk (such as a quarter cup) on your cereal and see if you have symptoms.

Often those with lactose intolerance can tolerate yogurt with active yogurt cultures. These cultures contain the enzyme lactase that is required to digest the lactose found in yogurt.

Most grocery stores sell milk that is lactose-free and sold under the brand name Lactaid. Those with lactose intolerance can often tolerate this milk. In addition, you can purchase pills that contain lactase that should be taken just prior to eating dairy foods.

For those who prefer to avoid dairy foods, there are many non-dairy foods that are good sources of calcium, including calcium-fortified juices and cereals, fortified soy milk and soy milk products, green leafy vegetables, nuts, and legumes.

Do I need to avoid all foods that contain milk products?

Some people have a very low tolerance for lactose and must avoid even the smallest amount of lactose. Foods that may contain lactose include bread and other baked goods, processed breakfast cereals, instant potatoes, soups, and breakfast drinks, lunch meats, salad dressings, candies and other, snacks, pancake, biscuits, and cookie mixes, and powdered meal replacement supplements.

Other people can tolerate small amounts of lactose at one time or can tolerate some dairy foods but not others. The level of dietary control needed depends on what each person's body can handle.

References

National Digestive Diseases Information Clearinghouse (NIDDK). *Lactose Intolerance*. Accessed January 2007. Available at www.digestive.niddk.nih.gov/ddiseases/pubs/lactoseintolerance

American Gastroenterological Association Patient Center. *Lactose Intolerance*. Available at <http://www.gastro.org/wmspage.cfm?parm1=854>