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Lactose Intolerance

Milk is widely regarded as one of nature's "perfect" foods, supplying essential nutrients, such as casein and other proteins, calcium, phosphorus, vitamins A and D, and a sugar called lactose. About 5% of milk is lactose.



Like most other foods, milk is digested in the small intestine. There, it is exposed to chemicals, called enzymes, that chemically break down food particles into smaller molecules that can be absorbed into the body and used for energy, growth and repair.

The small intestine makes an enzyme called lactase that splits each lactose molecule into two smaller sugars, called glucose and galactose, which can then be absorbed into the bloodstream. If lactase is not present in sufficient amounts, or if it is missing altogether, then the lactose will pass completely through the small intestine and into the colon (large intestine), pulling excess amounts of water with it into the colon. The

bacterial in the colon will then digest the lactose for their own energy, and will produce gas and even more water as their own waste products.

An individual who is unable to digest lactose therefore experiences too much water in the colon, often causing diarrhea, and excessive amounts of gas, causing abdominal swelling, bloating and often severe cramping.

Although most infants can digest lactose without difficulty, this ability is often lost by the time adulthood is reached. Many adults have a reduction or loss of lactase production, and are unable to digest lactose. This condition is called lactose intolerance, and is most common in blacks, orientals, American Indians and whites of Mediterranean extraction.



Lactose intolerance may also occur on a temporary basis in anyone who suffers an acute bout of gastroenteritis ("intestinal flu"), but in these cases, the ability to digest milk usu-

ally returns within a week.

The most direct approach to the problem of chronic lactose intolerance is to avoid all dairy products. Babies with lactose intolerance are usually given soy-based formulas as a substitute for milk. Adults often find that although they cannot tolerate milk or ice cream, they are able to eat dairy products which are relatively low in lactose, such as cultured buttermilk, aged cheese, and yogurt that contains live cultures, without suffering adverse symptoms.



For adults who are quite sensitive to dairy products, or for those who simply cannot give up their cereal or milk shakes, there are preparations of the enzyme lactase which can be taken with meals. Milk which has been pretreated with lactase is also available in many grocery stores. Finally, soy-based "milk" is increasing available in grocery stores, and comes in plain and flavored varieties.

Your doctor will be happy to discuss milk digestion and lactose intolerance with you in further detail.



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