COMMON CONDITIONS

battling lactose intolerance

Regretting you ate that pizza—and not because of the calories but because of more immediate...um...consequences? You could be suffering from lactose intolerance, a condition that causes intestinal distress and often worsens with age. -BY LAURA EVANS-

Hey! Not fair! This shouldn't hurt.

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ice cream cone, often viewed as a reward or treat, should be just that. But when the thought of that first bite triggers worries of unpleasant and painful digestive consequences, lactose intolerance may be to blame.

Lactose intolerance is a condition characterized by the inability to fully digest lactose, a sugar found in milk and other dairy products. It results from a deficiency in lactase, an enzyme produced by the cells lining the small intestine that breaks down lactose.

People with lactose intolerance know that ice cream and other foods containing dairy may not be worth the price, as they'll suffer from any number of symptoms, including diarrhea, abdominal pain, bloating and excessive gas, among others. These begin shortly after consuming milk or other dairy products, according to Dawei Yang, M.D., chief of endoscopy at Frederick Memorial Hospital and partner at Frederick Gastroenterology Associates. "The pain may be crampy and localized in the umbilical area or lower areas. Stool can be frothy, watery and sometimes bulky."

Lactose intolerance is classified in two groups: primary and secondary. "Primary lactose intolerance relates to the loss of the lactase enzyme in the small intestine, something that happens to everyone as they age," says Thomas P. Gage, M.D., founding partner of GI Associates of Maryland, which has offices in Fort Washington, and a staff physician at Southern Maryland Hospital Center in Clinton. "Secondary lactose intolerance is seen in people who have another small intestinal disease (e.g., celiac disease, Crohn's disease, irritable bowel syndrome). In this situation, the primary intestinal problem results in a secondary inability to digest lactose."

"A lactose-tolerant person has lactase in their small intestine that breaks lactose down into small molecules that the person can absorb and digest," says Michael J. Schwartz, M.D., a gastroenterologist at Capital Digestive Care, which has offices throughout Maryland and Washington, D.C. "A lactose intolerant person does not have lactase, so the milk sugar (lactose) cannot be broken down or absorbed. It travels downstream to the colon where bacteria ferment the lactose, producing gas and fluid, which causes gas, bloating, diarrhea."

Lactose intolerance is a common condition that affects people differently. According to the U.S. National Library of Medicine (NLM), approximately 65 percent of the population has a reduced ability to digest lactose after infancy.

"At birth, there is usually a surfeit of (lactase). After an infant is weaned—hence less need for the enzyme as other dietary items are introduced—there is a gradual decrease in the amount of enzyme present in the intestinal lining," Gage says.

Up to 75 percent of African-Americans suffer from some degree of lactose intolerance.

The prevalence of lactose intolerance also varies widely by ethnicity. "(We see it) approximately 10 percent (of the time) in adult Caucasians—lower in Northern Europeans than Southern Euroeans; 50 percent in Hispanics; 75 percent in African-Americans; and up to 90 percent in East Asians," Schwartz says. "This reflects the amount of cow or goat milk in the diet of these ethnic groups during...human evolution."

While it isn't known for sure, the fact that Northern Europeans tended to raise cattle and consumed dairy products regularly probably accounts for the persistence of lactase, as that genetic trait probably conferred a survival benefit over many generations, Gage says.

Yang says that since the symptoms of lactose intolerance can mimic other, more serious medical conditions, such as giardiasis, celiac disease and Crohn's disease, patients should be evaluated by their physicians.

The most commonly used tests to diagnose lactose intolerance in adults are a hydrogen breath test and a lactose tolerance blood test. According to NLM, with the hydrogen breath test, the preferred method, patients breathe into a balloon-type container prior to drinking liquid containing lactose. Breath samples are collected at set time periods and the hydrogen level is checked. Normally, very little hydrogen is found in the breath, but if the body has trouble breaking down and absorbing lactose, breath hydrogen levels increase.

The lactose tolerance blood test looks for glucose in the blood. For this test, several blood samples will be taken before and after the patient drinks the lactose solution.

"A simple way to diagnose is to stop all dairy products for two weeks and see if symptoms resolve," Schwartz says. Ceasing or decreasing dairy product intake can also improve the condition.

Another option is to take commercially available products containing lactase before eating dairy products, according to Schwartz. Dietary supplements such as Lactaid, Lactrase and Dairy Ease contain lactase to help people better digest dairy products.

"The majority of dietary lactose comes from milk and milk by-products, such as whole to skim milk, buttermilk, condensed milk, ice cream, goat's milk, yogurt and some cheeses," Yang says. "Many people with lactose intolerance can tolerate small amounts of lactose. Most people can tolerate a glass of milk at a time. What I worry is that people (with lactose intolerance) are so afraid to use dairy that they're avoiding it altogether.

"The principles of treatment are to reduce lactose intake while maintaining adequate calcium, vitamin D and protein intake," with the goal of eliminating symptoms, Yang says.

The severely lactose-intolerant should seek counsel about how to get adequate calcium in their diet, either via calcium-rich foods or by taking a calcium supplement, according to Gage. "I encourage people to eat yogurt—not only for the calcium—as it is also a good source of protein. Fish such as salmon is a good source of calcium, as are many of the cruciferous vegetables—broccoli, kale, etc." Soy, rice or almond milk do not contain lactose and are generally well tolerated.