

to your health



A newsletter about good foods for better health.

Spring 2009



The A, B, C's of Lactose Intolerance

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For the roughly 30 to 50 million adult Americans with lactose intolerance, something as simple as a glass of milk can be a one-way ticket to bloating, cramping, and diarrhea. The symptoms of lactose intolerance arise from the body's inability to completely digest lactose, one of the main carbohydrates found in dairy foods. Specifically, if your body does not produce plenty of lactase, the digestive enzyme that is needed to break down lactose, you can suffer from lactose intolerance.

Almost everyone produces some lactase, including most people with lactose intolerance. Some people, however, don't produce enough lactase to digest the amount of lactose they are eating. Each bit of lactose you eat requires some lactase to be digested properly. If you eat beyond your body's ability to produce lactase, the excess lactose is not digested and instead travels to the lower gastrointestinal (GI) tract. When this undigested lactose reaches the lower GI tract, the familiar symptoms of lactose intolerance — bloating, cramping, and diarrhea — result.

Allergy or Intolerance?

A true food allergy can be very serious and requires that you completely avoid the offending food. Food intolerances can result in great discomfort, but they aren't life-threatening. Interestingly, about 25-30% of adults believe they have food allergies. In reality, only 2% of adults and 6% of children actually are allergic to one or more foods. Many people mistakenly assume an intolerance is an allergy.

Common food allergy symptoms include hives, itchy skin, itchiness or tingling in the mouth, a metallic taste in the mouth, coughing, trouble breathing or wheezing, throat tightness, fainting, diarrhea, and vomiting. Impaired breathing is a life-threatening situation and requires immediate medical attention. Food intolerances commonly cause bloating, cramping, nausea, gas, and diarrhea.

Allergy and intolerance do share one symptom — diarrhea — but it's not difficult to tell these reactions apart. Intolerance symptoms occur nearly entirely in the GI tract, while allergy symptoms almost always involve other parts of

the body, such as the skin (hives) and the respiratory tract (wheezing or difficulty breathing).

Living with Lactose Intolerance

The key to living with lactose intolerance is to figure out how much lactose you can tolerate, and to find tasty substitutes for lactose-containing foods so that you don't exceed your body's ability to digest this carbohydrate.

Condensed and evaporated milk contain the most lactose with 40 and 24 grams of lactose per one cup serving, respectively. These two dairy products aren't commonly on the menu for most people, but they are found in some prepared foods and home-made desserts. Custard-type and gooey-chewy dessert bars often contain condensed milk. To avoid an unexpected and unpleasant reaction to hidden lactose, read labels or ask the person who prepared dessert.

When reading labels, pay attention to ingredients that can tip you off to the presence of lactose, such as casein, caseinate, curds, dry milk solids, lactose, milk solids, milk by-products, milk sugar, dry milk powder, whey, and yogurt. In particular, carefully read labels on salad dressing; instant soups, potatoes, and breakfast drinks; margarine; lunch meats; and mixes for pancakes, biscuits, and cookies. All of these are common lactose-offenders.

Milk contains the most lactose of commonly eaten dairy foods, with 11 grams per cup. Ice cream and yogurt clock in with 5-6 grams of lactose per ½ and one cup servings, respectively. At the low end of lactose-containing foods are cottage cheese (½ cup serving), cream cheese and, other cheeses, such as Swiss, parmesan, cheddar, and bleu cheese, with 0-2 grams lactose per one ounce serving.

Knowing this, you can try out small bits of the lower-lactose foods, which may be tolerated if you have mild to moderate lactose intolerance. Interestingly, if people with lactose intolerance eat small amounts of lactose daily, they can improve their ability to digest this carbohydrate. With small exposures to lactose, the body will produce more lactase.

Non-Dairy or Lactose-Free?

Dairy is the only source of lactose, so typically, if a food is labeled dairy-free, it will not contain lactose. It is possible, though not common, for a food to be dairy-free, but still contain added lactose. In this case, however, the added lactose will be found in the ingredient list.

The terms casein and caseinate also cause confusion for those navigating a lactose-free diet. Casein is a protein found in milk. People can be allergic to casein, but casein does not cause a lactose intolerance reaction. However, if you see the term casein, it may mean hidden dairy, which also means hidden lactose. So even though casein can be in foods that do not contain lactose and casein is fine for those with lactose-intolerance, if in doubt, avoid casein-containing foods to be on the safe side.

Who and Why?

Some people are more likely to suffer from lactose intolerance than others. Babies rarely have lactose intolerance because digesting breast milk requires the ability to digest lactose. As children grow older and no longer rely on breast milk for nutrition, they may lose the ability to digest lactose.

Ethnic background affects lactose intolerance too. People of Asian, Native American, African, and Hispanic ancestry have high rates of lactose intolerance. Up to 90% of Asian-Americans, 80% of Native Americans, 65% of African Americans, and 50% of Hispanic Americans are lactose intolerant. People of European ancestry are much less likely to be lactose intolerant.

In areas of the world where dairy historically has made up a substantial portion of the diet, such as Europe, people have retained the ability to digest milk into adulthood. In areas of the world where dairy does not make up a large portion of the diet, such as Asia, Africa, and the Americas prior to the arrival of Europeans, most adults do not retain the ability to digest lactose well.

Delicious Dairy Replacements

For people who cannot tolerate any lactose or who decide they don't want to run the risk of a reaction, avoiding lactose altogether may be the best option. Lactose free milk is available, but may be expensive. Another option is to try a milk substitute, such as soy or rice milk.

Soy is an ideal substitute for dairy milk. It comes in a variety of flavors and often is fortified with important nutrients found in dairy, including calcium, vitamin D, and vitamin B₁₂. Soy milk offers more protein than many other milk substitutes and fortunately, soy is not among the four foods — peanuts, tree nuts, fish and shellfish — responsible for 90% of food allergies in adults.

Soy Savvy and Tofu Tips

- Other soy products can substitute in recipes as well. When cooking and baking, seek out lactose-free substitutes for cheeses and creams.
- Smooth or "silken" tofu is terrific blended into soups and smoothies, adding protein and a thicker texture.
- Firm tofu is ideal for replacing cottage, ricotta, or mascarpone cheeses in lasagna or desserts.
- Extra firm tofu can be crumbled and used as a substitute for ground meat in tacos and chili.
- When using soy to replace cream, cheese, or meat, use herbs and spices liberally. Soy will take-up, or absorb, the flavors of whatever you are making. Without spices and herbs, soy can be very bland.
- Think outside the box. You don't have to use only "Asian" spices with tofu. Thyme, oregano, basil, sage, paprika, and coriander all work well with soy.
- If you want your stir-fried tofu firmer, sauté it in a pan first, with a couple teaspoons of canola oil and soy sauce. Let the tofu simmer at high heat for several minutes before flipping the pieces around to cook all sides. Don't worry: it's difficult to "burn" tofu.

References

- Familydoctor.org. Food Allergies. Available at: <http://familydoctor.org/online/famdocen/home/common/allergies/basics/340.html>. Accessed March 25, 2009.
- Mintel Report. Food Allergies and Intolerance – US – April 2007.
- University of Virginia Health System. Digestive Health Center. Lactose Content of Common Foods. Available at: <http://www.healthsystem.virginia.edu/internet/digestive-health/nutrition/LactoseContent.pdf>. Accessed March 25, 2009.

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