

# Lactose Intolerance

Among the many responsibilities of child care providers is feeding children nutritious, wholesome meals that meet each child's specific dietary needs. Knowing about and understanding each child's dietary needs is important because special accommodations might be necessary. Lactose intolerance, for example, is a condition some children have that has a direct impact on what they can eat. Knowing what symptoms to look for and what foods contain lactose are the first steps in caring for children with lactose intolerance. The following pages will describe what lactose is, what it means to be lactose intolerant, potential impact on children's health, and dietary guidelines and recommendations for lactose intolerant children.

## What is lactose?

Lactose is a natural sugar found in milk and dairy products. In the small intestine, lactose is broken down by an enzyme called lactase into two simpler forms of sugar – glucose and galactose – which are easily absorbed into the bloodstream by most people (1, 2, 3).

## What is lactose intolerance?

Lactose intolerance means a person is not able to easily digest lactose. Lactose intolerance is usually harmless, but digestive symptoms can be uncomfortable. Symptoms of lactose intolerance usually “begin 30 minutes to 2 hours after eating or drinking foods that contain lactose” and include gas, bloating, and diarrhea (1). Many people with lactose intolerance can still eat or drink small amounts of lactose with little or no discomfort (2). The amount of lactose tolerated varies from person to person. A singular experience of drinking milk and feeling sick or uncomfortable afterwards does not automatically mean you are lactose intolerant. However, if you feel ill every time you eat or drink dairy products, you might have lactose intolerance (3).

Lactose intolerance is sometimes confused with a milk allergy. While lactose intolerance involves a disorder with the digestive system, a milk allergy involves a “reaction by

the body's immune system to one or more milk proteins", which can be life threatening and is commonly diagnosed within the first year of life (4). Examples of milk allergy symptoms include hives, rashes, swelling, difficulty breathing, and loss of consciousness (4). Unlike milk allergies, lactose intolerance tends to develop during adolescence or adulthood (2).

## **Who is at greatest risk of being lactose intolerant?**

Common among adults and family members, lactose intolerance is also more likely to occur in certain racial and ethnic populations including Native Americans, Asian Americans, Hispanics/Latinos, and African Americans. European Americans are the least likely to develop lactose intolerance (3).

## **How does lactose intolerance affect health?**

Along with abdominal discomfort, lactose intolerance can affect children's health if they are unable to consume enough nutrients found in dairy products that are essential to health, specifically calcium and vitamin D. Children might become calcium deficient if they do not eat or drink enough calcium-rich foods or calcium supplements. Lack of vitamin D could result in decreased calcium absorption from foods. Adequate calcium and vitamin D intake during childhood is essential for bone growth and maintenance. When children's diets are low in calcium and/or vitamin D they are at greater risk of having low bone density later in life, a condition called osteoporosis (2).

## **Does lactose intolerance mean a person cannot tolerate any amount of lactose?**

People who experience symptoms of lactose intolerance can tolerate varying amounts of dietary lactose and might not need to completely avoid milk and dairy products. Eliminating all dairy from a person's diet can lead to insufficient intake of calcium and vitamin D. Some children with lactose intolerance might experience severe symptoms after drinking a small glass of milk while others can drink a large glass of milk and not experience any discomfort. Yogurt

and hard cheeses (like cheddar) are usually better tolerated compared to fresh milk. Eating or drinking milk or milk products with meals or in small amounts is another way people with lactose intolerance can reduce their symptoms (2).

## Managing lactose intolerance

While there is no cure for lactose intolerance, many people manage symptoms of lactose intolerance by following a special diet. Sometimes limiting the amount of lactose a person eats or drinks is sufficient to reduce or eliminate symptoms. Avoiding lactose entirely might be necessary for those who experience more severe symptoms of lactose intolerance. Lactase, the enzyme used to break down lactose, is added to some dairy products and can help people digest lactose (2). Lactose-free and lactose-reduced milk are both included on the USDA's creditable foods list for child care providers (5). Remember to check food labels for added lactose. Be on the lookout for ingredients like butter, cheese, cream, dried milk, milk solids, powdered milk, and whey, as they all contain lactose.

A big concern for lactose-intolerant people is making sure they receive enough calcium and vitamin D needed for bone strength and maintenance. Luckily dairy products are not the only sources of these nutrients.

The amount of **calcium** children should consume per day depends on their age (6).

Age (yr.)	Calcium RDA (mg/day)
1 – 3	500 (males/females)
4 – 8	800 (males/females)
9 – 13	1300 (males/females)
14 – 18	1300 (males/females)

### Reimbursement-approved non-dairy sources of calcium include:

- Dark green vegetables including broccoli, okra, kale, collards, turnip greens, bok choy (Chinese cabbage)

- Pinto beans
- Canned fish with bones (salmon, tuna and sardines).
- Calcium-fortified cereals and orange juice
- Calcium-fortified soy milk (if nutritionally equivalent to milk)
- Almonds

To increase calcium absorption, all children should receive the following amount of **vitamin D** per day (7):

<b>AGE (yr.)</b>	<b>Vitamin D RDA (µg/day)</b>
0 – 12 months	10 (males/females)
1 – 18 years	15 (males/females)

**Reimbursement-approved non-dairy sources of vitamin D include:**

- Fatty fish (salmon, tuna and sardines)
- Eggs
- Vitamin D-fortified soy milk (if nutritionally equivalent to milk)
- Vitamin D-fortified cereals and orange juice
- Mushrooms exposed to ultraviolet light (will be labeled as a source of vitamin D)

**References**

1. Mayo Clinic. *Diseases and Conditions: Lactose intolerance*. Retrieved from <http://www.mayoclinic.org/diseases-conditions/lactose-intolerance/basics/definition/con-20027906?p=1>
2. National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). *Lactose Intolerance*. Updated June 2014. Retrieved from <https://www.niddk.nih.gov/health-information/health-topics/digestive-diseases/lactose-intolerance/Pages/facts.aspx>
3. WebMD. *Lactose Intolerance – Topic Overview*. Retrieved from <http://www.webmd.com/digestive-disorders/tc/lactose-intolerance-topic-overview?print=true>
4. Food Allergy Research & Education (FARE). *Milk Allergy*. Retrieved from <https://www.foodallergy.org/allergens/milk-allergy>
5. United States Department of Agriculture. (2014). *Crediting handbook for the Child and Adult Care Food Program*. Retrieved from [www.fns.usda.gov](http://www.fns.usda.gov)
6. National Institutes of Health. *Calcium: Dietary supplement fact sheet*. Updated November 2016. Retrieved from <https://ods.od.nih.gov/factsheets/Calcium-HealthProfessional/>
7. National Institutes of Health. *Vitamin D: Factsheet for health professionals*. Updated February 2016. Retrieved from <https://ods.od.nih.gov/factsheets/VitaminD-HealthProfessional/>



When you have completed this course,  
click [HERE](#) to take the test.

(or you can type this address into your browser:

<http://tinyurl.com/Lactose-Intolerance-2017> )

Be sure to read each field carefully to ensure  
that you receive an accurate certificate.

Thank you for choosing  
us for your training needs:

Wildwood CACFP

...for those who care for children

12200 E. Briarwood Ave. Suite 175

Centennial, CO 80112

Visit us online for more  
great tips and information:

[www.wildwoodonline.org](http://www.wildwoodonline.org)

[www.facebook.com/WildwoodCACFP](https://www.facebook.com/WildwoodCACFP)