



Lactose Intolerance: Key Terms Defined

- **Lactase Deficiency:** “Low concentrations of lactase in the small intestinal brush border relative to the concentrations observed in infants. There are multiple causes of lactase deficiency.”¹
 - Primary Lactase Deficiency – Genetic deficiency or absence of the enzyme lactase.²
 - Secondary Lactase Deficiency - Injury to the small intestine that occurs with severe diarrheal illness, celiac disease, Crohn’s disease, or chemotherapy.³ This deficiency usually is reversible with recovery from the disease.¹
- **Lactase Nonpersistence (or Lactase Insufficiency):** “A genetically programmed reduction in lactase” that occurs sometimes after weaning⁴
- **Lactose Malabsorption:** “Occurs because of a decreased ability to digest lactose, due to a deficiency in the levels of the enzyme lactase....diagnosed by having individuals ingest a standard dose of lactose after fasting and finding elevated levels of breath hydrogen....Other diagnostic tools include measuring the lactase activity in an intestinal biopsy sample or genetic testing for the common polymorphism that is linked to lactase nonpersistence. The demonstration of lactose malabsorption does not necessarily indicate that an individual will be symptomatic.”⁴
- **Lactose Intolerance:** “...the onset of gastrointestinal symptoms following a blinded, single-dose challenge of ingested lactose by an individual with lactose malabsorption, which are not observed when the person ingests an indistinguishable placebo.....Lactose intolerance is the syndrome of diarrhea, abdominal pain, flatulence, and/or bloating occurring after lactose ingestion.”⁴
- **Milk Allergy:** “Hypersensitivity to cow’s milk protein by a mechanism involving the immune system.”⁵

Sources:

1. Lactose Intolerance and Health. No. 192 (Prepared by the Minnesota Evidence-based Practice Center under Contract No. HHS 290-2007-10064-1.) AHRQ Publication No. 10-E004. Rockville, MD. Agency for Healthcare Research and Quality. February 2010. <http://www.ahrq.gov/downloads/pub/evidence/pdf/lactoseint/lactint.pdf>
2. American College of Gastroenterology. Common Gastrointestinal Problems in Pediatric Patients. Available at: <http://www.gi.org/patients/gihealth/pediatric.asp>
3. National Digestive Diseases Information Clearinghouse. Lactose Intolerance. Available at: <http://digestive.niddk.nih.gov/ddiseases/pubs/lactoseintolerance/>
4. National Institutes Of Health Consensus Development Conference Statement NIH Consensus Development Conference: Lactose Intolerance and Health February 22–24, 2010. Available at: http://consensus.nih.gov/2010/images/lactose/lactose_finalstatement.pdf
5. Allergy and Asthma Foundation of America. Milk Allergy. Available at: <http://www.aafa.org/display.cfm?id=9&sub=20&cont=516>.