

LACTOSE INTOLERANCE

FACTSHEET

- Lactose intolerance is the inability or insufficient ability to digest lactose, a sugar found in milk and milk products.
- Lactose intolerance is caused by a deficiency of the enzyme lactase, which is produced by the cells lining the small intestine.
- Not all people with lactase deficiency have digestive symptoms, but those who do may have lactose intolerance.
- Most people with lactose intolerance can tolerate some amount of lactose in their diet.
- People with lactose intolerance may feel uncomfortable after consuming milk and milk products. Symptoms can include abdominal pain, abdominal bloating, gas, diarrhea, and nausea.
- The symptoms of lactose intolerance can be managed with dietary changes.
- Getting enough calcium and vitamin D is a concern for people with lactose intolerance when the intake of milk and milk products is limited. Many foods can provide the calcium and other nutrients the body needs.
- The Dietary Guidelines for Americans 2005 recommend that people with lactose intolerance choose milk products with lower levels of lactose than regular milk, such as yogurt and hard cheese.
- Lactose-free and lactose-reduced milk and milk products, available at most supermarkets, are identical to regular milk except that the lactase enzyme has been added. Lactose-free milk remains fresh for about the same length of time or longer than regular milk if it is ultra-pasteurized. Lactose-free milk may have a slightly sweeter taste than regular milk. Soy milk and other products may be recommended by a health professional.

Milk and milk products are often added to processed foods. Checking the ingredients on food labels is helpful in finding possible sources of lactose in food products. Some common ingredients which contain lactose:

- Abdominal bloating
- Abdominal cramps
- Diarrhea
- Floating stools
- Foul-smelling stools
- Gas (flatulence)
- Malnutrition
- Nausea
- Slow growth
- Weight loss

Symptoms often occur after you eat or drink milk products, and are often relieved by not eating or drinking milk products. Large doses of milk products may cause worse symptoms.

Table 1. Recommended calcium intake by age group

| Age group | Amount of calcium to consume daily, Age group in milligrams (mg) |
|--------------|--|
| 0–6 months | 210 mg |
| 7–12 months | 270 mg |
| 1–3 years | 500 mg |
| 4–8 years | 800 mg |
| 9–18 years | 1,300 mg |
| 19–50 years | 1,000 mg |
| 51–70+ years | 1,200 mg |

Source: Adapted from *Dietary Reference Intakes, 2004*, Institute of Medicine, National Academy of Sciences.

- Women who are pregnant or breastfeeding need between 1,000 and 1,300 mg of calcium daily.

Table 2. Calcium content in common foods

| Non-milk Products | Calcium Content |
|---|-----------------|
| Rhubarb, frozen, cooked, 1 cup | 348 mg |
| Sardines, with bone, 3 oz. | 325 mg |
| Spinach, frozen, cooked, 1 cup | 291 mg |
| Salmon, canned, with bone, 3 oz. | 181 mg |
| Soy milk, unfortified, 1 cup | 61 mg |
| Orange, 1 medium | 52 mg |
| Broccoli, raw, 1 cup | 41 mg |
| Pinto beans, cooked, 1/2 cup | 40 mg |
| Lettuce greens, 1 cup | 20 mg |
| Tuna, white, canned, 3 oz. | 12 mg |
| Milk and Milk Products | |
| Yogurt, with active and live cultures, plain, low-fat, vitamin D-fortified, 1 cup | 415 mg |
| Milk, reduced fat, vitamin D-fortified, 1 cup | 285 mg |
| Swiss cheese, 1 oz. | 224 mg |
| Cottage cheese, 1/2 cup | 87 mg |
| Ice cream, 1/2 cup | 84 mg |

Lactose Intolerance and Calcium Intake

Milk and milk products are a major source of calcium and other nutrients although they contain lactose. Calcium is essential for the growth and repair of bones at all ages. A shortage of calcium intake in children and adults may lead to fragile bones that can easily fracture later in life, a condition called osteoporosis.

Treatment

Soy milk- Lactose-free and lactose-reduced milk and milk products which have the same components of milk without the lactose. Over-the-counter lactase enzyme drops or tablets. Taking the tablets or a few drops of the liquid enzyme when consuming milk or milk products may make these foods more tolerable for people with lactose intolerance.

References:

National Digestive Disease Information Clearinghouse. Lactose Intolerance. N.P. 4 November 2010. Web June 2009. <http://digestive.niddk.nih.gov/ddiseases/pubs/lactoseintolerance>

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