

# Low Lactose Diet

## What is lactose?

Lactose is a sugar found in milk and milk products. Small amounts may be found in processed foods and medications. Lactase is an enzyme made by the small bowel that helps to digest lactose. If lactase is not present, then the lactose cannot break down or be absorbed and it passes directly into the large bowel. Undigested lactose in the large bowel causes the symptoms of lactose intolerance.

## Why do I have lactose intolerance?

Lactose intolerance can be a temporary condition following damage to the cells of the small bowel. This may occur after a course of antibiotics, a bout of diarrhea or with a flare up of Crohn's disease or Ulcerative Colitis. Once the cells that produce the enzymes have recovered you will be able to digest lactose again. Lactose intolerance can be long term if it is an inherited condition.

It is important to know that lactose intolerance does not mean you have an allergy to milk and milk products. An allergy to milk is related to the protein in milk. Lactose is a sugar in milk and not all milk products contain the same amount of lactose. You do not need to avoid all milk products if you have lactose intolerance and your level of intolerance can be very different when compared to another person with lactose intolerance.

## What are the symptoms of lactose intolerance?

When the undigested lactose travels to the large bowel, it is used by the bacteria of the large bowel which causes gas, bloating, nausea, cramping and watery diarrhea.

Lactose intolerance is dose related. By eating less lactose you can prevent or reduce these symptoms.

## General Guidelines

1. The first step is to avoid as many lactose sources in the diet as possible until your symptoms stop. Check with your pharmacist about medications that contain lactose.
2. Check labels for hidden sources of lactose- milk solids or powder, whey, curds, cheese flavour. The following words on the ingredient list means the product contains lactose:
  - a. milk
  - b. milk solids
  - c. whey
  - d. lactose
  - e. curds
  - f. cheese flavour
  - g. malted milk
  - h. non-fat milk solids
  - i. buttermilk
  - j. cream
  - k. non-fat milk powder

**Note:** Products that contain lactic acid, lactalbumin, lactate and casein do not contain lactose

3. Use commercially produced lactose free milk products such as Lactaid<sup>®</sup> or Lacteeze<sup>®</sup> milk.
4. Gradually add foods with lactose back into your diet to determine your level of tolerance to lactose. Start with foods and fluids that are lowest in lactose content first. See table, “Lactose Content of Common Dairy Products and Milk Alternatives”.
5. Taking smaller amounts of lactose spread throughout the day may help with managing symptoms. Example, ¼ cup milk four times a day instead of 1 cup at breakfast. Try drinking milk with a meal instead of on an empty stomach.

6. Chocolate milk or higher fat milks are sometimes better tolerated than low fat milk.

7. Choose yogurt with active cultures- the bacteria will help with some of the digestion of lactose. Common yogurt brands with active cultures include: Activia, Yoplait, Stonyfield



8. Lactaid tablets can be taken before meals to assist with the digestion of foods containing lactose. Lactaid drops can be added to regular milk to reduce the lactose content before it is consumed.

9. Lactose containing foods are excellent sources of calcium. Milk is also an excellent source of vitamin D. Discuss your requirements for calcium and vitamin D and alternative food sources of these important nutrients with your dietitian.

10. Non-dairy milk alternatives do not contain lactose and can be a good source of vitamin D and calcium if they are fortified. Check the label or ask your dietitian if the alternative you are choosing is a fortified version. Some examples include: soy milk, rice milk, almond milk, coconut milk, hemp milk and soy yogurt.





## Lactose Content of Common Dairy Products

| Product  | Portion         | Lactose (g)              |
|--|-----------------|--------------------------|
| Sweetened, condensed milk                        | 125 mL ( ½ cup) | 15                       |
| Homogenized 3.3%, 2%, 1%, skim                   | 250mL (1 cup)   | 12-13                    |
| Goats milk                                       | 250mL ( 1 cup)  | 11                       |
| Buttermilk                                       | 250 mL (1 cup)  | 9                        |
| Lactaid® or Lacteeze® milk                       | 250 ml (1 cup)  | 0                        |
| Pudding or custards made with milk               | 125mL ( ½ cup)  | 6                        |
| Frozen yogurt                                    | 125ml ( ½ cup)  | 4.5                      |
| Ice cream  | 125 ml ( ½ cup) | 3-6                      |
| Ice milk   | 125ml ( ½ cup)  | 9                        |
| Evaporated Milk                                  | 125 mL ( ½ cup) | 12                       |
| Cream Cheese                                     | 1 slice (1 oz.) | Less than 1              |
| Blue Cheese                                      | 50g (1 ½ oz.)   | Less than 1              |
| Mozzarella, Swiss, Emmental, Parmesean, cheddar) | 50g (1 ½ oz.)   | Less than 1              |
| Hot chocolate, homemade, 3.3% or 2% milk         | 250 ml ( 1 cup) | 12                       |
| Chocolate milk                                   | 250 ml ( 1cup)  | 10* often well tolerated |
| Cottage Cheese                                   | 125 ml ( ½ cup) | 3                        |
| Sour Cream                                       | 60 mL ( ¼ cup)  | 2                        |
| Coffee Latte, made with milk                     | 175 mL ( ¾ cup) | 7                        |

## **Meat and Alternatives**

Meat and Alternatives contain very little lactose. Some products could be prepared with milk or milk products such as some processed meat, breaded or battered meat or fish, commercial egg substitutes, scrambled eggs, and soufflés. These products may contain some lactose content.

## **Fats and Oils**

Fats and Oils also contain very little lactose. Fat and oil products that may include lactose are those prepared with milk or milk products, such as butter or margarine, made with milk or whey powder and salad dressings (e.g. ranch style or buttermilk).

## **Other Foods**

Prepared foods made with milk or milk products may include lactose. These include:

- store bought gravy or sauce mixes
- vegetable or chip dips
- soups
- chips or snack crackers (e.g. cheese or ranch flavoured)
- sugar substitutes made with lactose (e.g. Equal®)
- artificial whipped toppings, hot chocolate mixes, or cream based liqueurs
- powdered meal replacement supplements

**Notes:** \_\_\_\_\_  
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Registered Dietitian: \_\_\_\_\_

905-378-4647 ext. \_\_\_\_\_

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Adapted from : Dietitians of Canada, Low Lactose diet, Food Sources of Lactose, 2013; Lactose Restricted diet, Dietary Management of Food Allergies and Intolerances, J. Jonega 1998.

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