



Restricted-Lactose Diet

This information sheet explains:

- Lactose intolerance and lactase deficiency
- How to figure out what your child can eat and drink to avoid problems from lactose

Lactose is the major sugar in milk and milk products. Almost all milk has lactose in it. This includes cow's milk, human milk and goat's milk. The amount of lactose varies in milk products such as cheese.

To digest lactose, a person needs an enzyme called *lactase*. Lactase breaks down lactose into two simpler sugars that the body can use. Our bodies normally make lactase.

When a person does not produce enough lactase, the lactose is not broken down. Then the lactose can cause abdominal pain, bloating and diarrhea.

When a person cannot digest lactose, this is called *lactose intolerance* or *lactase deficiency*. It is not a milk allergy.

The goal of the restricted-lactose diet is to help stop the problems that occur when a person cannot digest lactose. The five steps of the diet are on the next page. Once you reach the step where your child has no problems, you do not have to go on to the next step. Follow only the steps your child needs to keep from having problems.

Caution

This is not a diet for people who are allergic to milk protein. If you think your child may be allergic to milk protein, talk with your child's doctor.

Calcium

Milk and milk products are a major source of calcium. Children need calcium for healthy bones and teeth. Leafy green vegetables have some calcium. You can buy many foods with calcium added, such as orange juice and breakfast foods. Soy products such as soy milk, yogurt, cheese and tofu are good sources of calcium and naturally lactose free.

Milk and milk products

Many people with a lactose problem can drink milk that has lactase added to it. You can buy tablets that contain lactase and use the tablets with food. Two brands are Lactaid and Dairy Ease. You also can buy Lactaid milk, which is treated and ready to drink.

The process that makes milk into yogurt, and hard cheese lowers the lactose level. Sometimes these milk products will not cause problems.

The diet steps on the next page will explain how to try these products. If you find that any food causes problems, talk with your child's doctor.

Different people can digest different amounts of lactose. Even a trace of lactose can cause problems for some children. Other children can drink lactase-treated milk. For this reason, this diet has five steps.

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How to use this diet

This restricted-lactose diet has five steps. Follow only the steps needed to get rid of your child's problems. Start with Step one. If this works, you do not have to continue. Follow each step for three days. If your child still has problems, go to the next step.

Step 1

Give your child a balanced diet from all the food groups: breads and cereals, meats, fruits and vegetables, and lactase-treated milk and milk products. Follow the instructions for Lactaid or Dairy Ease tablets. These foods have a high amount of lactose and need to be treated:

- Baby formulas with cow's milk
- Chocolate milk • Condensed milk
- Eggnog • Evaporated milk
- Goat milk • Half-and-half
- Ice cream • Light cream
- Low-fat milk • Milk chocolate
- Nonfat dry powdered milk • Skim milk
- Whipping cream • Whole milk
- Yogurt • Buttermilk

Yogurt is sometimes OK. See *Milk and milk products* on the first page. If one of the foods on this list does not cause problems, it is fine to use.

Step 2

Keep giving your child a balanced diet. Follow the instructions for using more Lactaid or Dairy Ease tablets to break down more of the lactose in the foods listed in Step one.

Step 3

Keep giving your child a balanced diet but stop giving your child the foods listed in Step one. Also, do not give your child these foods, which have a medium amount of lactose:

- Cottage cheese • Cream cheese
- Sour cream • American cheese
- Processed cheese or cheese food

Step 4

Keep giving your child a varied diet with meat and other protein foods, grain products, and fruits and vegetables. Do not give your child the foods listed in Step one or Step three. Also, do not give your child these foods:

- Aged cheeses • Butter or margarine
- Bread containing milk or milk products

You also must read the labels on packaged foods and stop giving your child any foods that have milk products as ingredients. Do not give your child foods that contain:

- Milk • Milk solids
- Dry milk solids • Whey
- Lactose • Curds
- Cream • Milk by-products
- Nonfat dry milk powder

There are a few ingredients that sound like they contain lactose but do not. Lactate, lactalbumin and calcium compounds are OK.

Step 5

Do not give your child any of the foods on the Avoid list (see the next two pages). Give your child a varied diet using the foods on the Allowed list (also on the next two pages). Ask your child's doctor if calcium supplements are needed.

Do not forget to read labels. Since lactose is often added to foods and medicines as a filler or sweetener, use only products with the ingredients on the label.

If you find that any food causes problems, talk with your child's doctor.

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Allowed food for step 5	Allowed food for step 5, cont.																		
<p>Milk and milk product substitutes</p> <ul style="list-style-type: none">• Lactose-free infant and toddler formulas• Soy-based infant and toddler formulas• Soy milk, soy yogurt, soy cheese and soy ice cream• Cream substitutes, such as Cool Whip or non-dairy creamer	<p>Soups</p> <ul style="list-style-type: none">• Broths made with allowed foods• Consomme (jellied broth)																		
<p>Meat and other protein foods (fixed without milk or lactose)</p> <table><tbody><tr><td>• Beef</td><td>• Chicken</td><td>• Turkey</td></tr><tr><td>• Pork</td><td>• Plain fish</td><td>• Shell fish</td></tr><tr><td>• Eggs</td><td>• Liver</td><td>• Beans</td></tr><tr><td>• Lamb</td><td>• Kosher cold cuts</td><td>• Tofu</td></tr><tr><td>• Kosher hot dogs (not for children under 3 because they can choke)</td><td></td><td></td></tr><tr><td>• Peanut butter (not for children under 3 because of choking risk)</td><td></td><td></td></tr></tbody></table>	• Beef	• Chicken	• Turkey	• Pork	• Plain fish	• Shell fish	• Eggs	• Liver	• Beans	• Lamb	• Kosher cold cuts	• Tofu	• Kosher hot dogs (not for children under 3 because they can choke)			• Peanut butter (not for children under 3 because of choking risk)			<p>Fats</p> <ul style="list-style-type: none">• Vegetable oil or shortening• Bacon• Margarine without milk• Salad dressings such as Miracle Whip, French, Italian and Russian dressings
• Beef	• Chicken	• Turkey																	
• Pork	• Plain fish	• Shell fish																	
• Eggs	• Liver	• Beans																	
• Lamb	• Kosher cold cuts	• Tofu																	
• Kosher hot dogs (not for children under 3 because they can choke)																			
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<p>Breads, cereals and other starches</p> <ul style="list-style-type: none">• Breads and rolls made without milk or lactose, such as kosher breads and rolls• Cooked cereals and most cold cereals, white or sweet potatoes• Soda crackers, pasta and noodles, tortillas, rice	<p>Desserts and sweets</p> <ul style="list-style-type: none">• Gelatin• Angel food cake• Sugar• Maple syrup• Pure jams and jellies• Cookies and pies made with allowed foods																		
<p>Vegetables, fruits and juices</p> <ul style="list-style-type: none">• All plain vegetables• All plain fruits and juices	<p>Beverages</p> <ul style="list-style-type: none">• All plain juices• Carbonated drinks• Kool-Aid																		
	<p>Snacks and other foods</p> <ul style="list-style-type: none">• Plain popcorn• Olives• Vinegar• Unsweetened baking chocolate• Pretzels• Catsup• Pure spices• Pickles• Mustard																		

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Avoid these foods for step 5

Milk and milk products

- All milk and milk products (see Step one and three)
- Infant formulas that contain milk or lactose

Meat and other protein foods

- Hot dogs (not for children under 3)
- Cold cuts
- Sausage or ham made with milk, milk products, or lactose
- Creamed or breaded meats
- Eggs cooked with milk

Breads, cereals and other starches

- Most breads and rolls from stores and restaurants
- Crackers and breads made with milk or butter
- Pancakes, waffles, and french toast (unless made with allowed ingredients)
- Cold cereals containing lactose
- Instant potatoes with milk, french fries or other potatoes from stores or restaurants
- Macaroni and cheese or pasta with cream sauce

Vegetables, fruits and juices

- Vegetables with lactose added
- Buttered, creamed or breaded vegetables
- Juice that has milk products or lactose added

Soups

- Cream soups
- Milk-based chowders
- Dried soups that contain lactose

Avoid these foods for step 5, cont.

Fats

- Butter
- Sour cream
- Creamy salad dressings, such as Thousand Island, Ranch, Creamy Italian or Garlic
- Cream sauces and gravies made from milk or milk products
- Margarine with milk added
- light or heavy cream

Desserts and sweets

- Baked goods from stores, bakeries or restaurants
- Any desserts made with milk or milk chocolate, such as custard, puddings or cream pies
- Fruit fillings from stores
- Any sweets made with milk or milk products, such as milk chocolate, caramels, fudge, butterscotch toffee and many icings

Beverages

- Cocoa mixes or cocoa malt
- Powdered flavoring mixes
- Instant Breakfast
- Juices that have milk products
- Ovaltine

Snacks and other foods

- Corn or cheese curls
- Many diabetic and dietetic items
- Some vitamin and mineral mixtures
- Some chewing gum
- Party dips

Developed by the Department of Food and Nutrition Services;
Department of Gastroenterology, Hepatology and Nutrition.

Texas Children's Hospital Integrated Delivery System is
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finest possible pediatric care, education and research.



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