

Milk Allergy

What is a milk allergy?

A milk allergy is an allergic reaction to the protein in milk. Casein is the main protein in milk. Children with a milk allergy must not drink or eat milk products or foods with milk proteins. The most common milk allergy symptoms include:

Skin reactions:

- Allergic "shiners" (black eyes)
- Itchy red rash
- Hives
- Eczema
- Swelling of lips, mouth, tongue, face, and throat

Stomach reactions:

- Abdominal pain and bloating
- Diarrhea (usually very runny)
- Vomiting
- Gas
- Cramps

Nose, throat, and lung reactions:

- Runny nose
- Sneezing
- Water or itchy eyes
- Coughing
- Wheezing
- Shortness of breath

Milk allergy is not the same as **lactose intolerance**. Lactose intolerance means the body does not make enough lactase. Lactase digests the sugar in milk. People with lactose intolerance can have belly pain, gas, and bloating. If you think your child has lactose intolerance you should discuss treatment options with your child's pediatrician or a registered dietitian.

Cross-reactivity occurs when the proteins in one food are similar to the proteins in another. When that happens, the body's immune system sees them as the same. For example, if your child is allergic to cow's milk there is about a 90% chance that they will also be allergic to the milk from other mammals such as goat and sheep.

What do I do for my child with milk allergy?

To treat a milk allergy, your child should not eat or drink milk or any foods with milk or dairy products. You and your child will need to read labels on food for milk products.

What to look for on food labels

Food labels that are regulated by the Food and Drug Administration (FDA) must say if the food contains the 9 most common food allergens. Those are milk, soy, egg, wheat, peanuts, tree nuts, shellfish, fish, or sesame. Always read the ingredient list to be sure and check all labels carefully. Manufactureres may change ingredients without warning.

Statements like "made on equipment that also processes" or "may contain" are voluntary. They do not show how likely any cross contamination may be. You should generally avoid any food with these types of labels for your child's allergen or contact the company for more information. Talk to your child's allergist if you have questions about how strict you need to be with avoiding allergens.

Sample food label:

Ingredients

Whole Oats, Brown Rice Syrup, Rice Crisps (Milled Rice, Sugar, Salt, Barley Malt), Diced Apples, Evaporated Cane Juice Syrup, Raisins, Roasted Soy Beans, Almond Butter, Honey, Pear and Grape Juice Concentrate, Brown Rice Flour, Soy Protein Isolate, Glycerin, Natural Flavors, Cinnamon, Nonfat Milk

Contains milk, nut and soy ingredients. Made on equipment that also processed peanuts and wheat.

What are some names for milk on food labels?

The following are some names for products made from milk:

- Dairy, includes milk (whole, 2%, 1%, or non-fat/skim)
- Dry milk solids
- Butter
- Cream
- Half and half
- Sour cream
- Cottage cheese
- Cheese (any type)
- Ice cream
- Yogurt
- Kefir
- Eggnog
- Instant breakfast powders or liquids
- Other milk based protein drinks

Ingredients that contain milk			
Artificial butter flavor	Cheese	Lactalbumin	Rennet casein
Butter fat	Cream	Lactoalbumin phosphate	Tagatose
Butter milk	Dairy	Lactoferrin	Whey
Butter oil	Diacetyl	Lactose	Whey hydrolysate
Casein	Ghee	Milk protein hydrolysate	
Caseinates (in all forms)	Lactaglobulin	Protein hydrolysate	

“Non-dairy” foods may still contain milk proteins, so take time to read labels. Many packaged meals, vegetables, gravies, sauces, soups, and salad mixes contain milk. Current U.S. food labeling regulations allow for an item to be labeled as “non-dairy” on the package. A food may be labeled non-dairy even if it has casein in it. The ingredient statement on non-dairy products will list “casein” or “caseinates” and the word “milk” if it is an ingredient.

Always read the label for milk and milk products.

Will my child get enough nutrients by avoiding milk?

Milk provides a good source of many nutrients essential for your child’s growth and bone development. This is especially important during peak growth periods. (See table on top right.)

Nutrient’s lost when avoiding milk	Suggested alternate sources (if not allergic)
Protein, Calcium, Riboflavin, Phosphorus, Vitamins A, D, and B12	Increase other protein foods: eat fish, poultry, legumes, eggs (if safe for your child), fortified milk substitutes; leafy greens, nuts, calcium-fortified foods

How can I help my child get the right nutrients?

You will need to choose foods that will help replace the essential nutrients lost by avoiding milk. Meats, poultry, eggs, fish, nuts and legumes are good sources of protein. However, you also need to replace calcium.

Many non-dairy sources of calcium are in foods that most children do not like to eat. For example, 1 cup of leafy greens have as much calcium as 4 ounces of milk. A child would need to eat up to 4 cups of leafy greens to get 500 milligrams of calcium. The likelihood of a child eating that much is very small. You and your child will need to read labels carefully to find a variety of foods with added calcium (fortified).

Milk alternatives may be work if your child is over 1 year. Examples include:

- Soy milk
- Fortified rice milk
- Fortified grain or seed milks (hemp milk, oat milk, flax milk)
- Fortified nut milks (almond or cashew)
- Fortified coconut milk
- Fortified pea protein based milk

Any of these milk substitutes can be used, if tolerated. A substitute for a glass of milk should have 30% of the daily recommended amount of calcium and 8 grams of protein per 8 ounce serving. Make sure the substitute has enough calcium and additional nutrients. Read the nutrition label on the package to check the nutrients.

Calcium fortified juices also have calcium but are not a good source of other nutrients.

In some cases, you may need to give your child dietary supplements. However, if your child is at an age when a specialized milk-free formula is a large part of the daily diet, supplements may not be necessary.

Foods that are allowed and foods to avoid:

Foods your child can eat (No milk)	Foods your child should NOT eat (Contain milk)
Beverages and Formula	
<ul style="list-style-type: none"> All carbonated drinks Fruit juices Punch Tea <p>Non-Dairy Beverages:</p> <ul style="list-style-type: none"> Almond milk Cashew milk Coconut milk or water Flax milk Oat milk Hemp milk Pea protein milk Rice milk Soy milk <p>Infant/Pediatric Formulas:</p> <ul style="list-style-type: none"> Hypoallergenic Formula Soy formulas 	<p>All milk or milk products such as:</p> <ul style="list-style-type: none"> Buttermilk Condensed milk Dry skim milk powder, milk solids, or milk proteins Evaporated milk Goats milk Hot chocolate Kefir Lactose-Free Milk Lowfat milk Malted milk Nido® Ovaltine Skim milk Whole milk <p>Infant/Pediatric formulas with milk</p> <p>Non-Dairy Beverages:</p> <ul style="list-style-type: none"> Coffee creamers
Dairy Products	
<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Cheeses Cottage cheese Cream Cream solids Custard Frozen yogurt Half-and-half Ice cream Nacho cheese Natural or processed Nougat Pudding Sour cream (inc. imitation) Velveeta® cheese Whipping cream Yogurt
Eggs, Meats, Fish and Poultry	
<ul style="list-style-type: none"> All plain eggs, beef, chicken, fish, ham, turkey, lamb, veal and pork Baby foods without milk products 	<ul style="list-style-type: none"> Creamed or breaded meats, fish or chicken Hotdogs with milk solids Luncheon meats or cold cuts with milk solids Omelets with cheese or milk Sausages Souffle's
Fruits	
<ul style="list-style-type: none"> All baby fruit without milk products All fresh fruits Canned and frozen fruits without milk products 	<ul style="list-style-type: none"> All baby fruits with milk Canned or frozen fruit with milk

Foods your child can eat (No milk)	Foods your child should NOT eat (Contain milk)
Vegetables	
<ul style="list-style-type: none"> All baby vegetables without milk products All fresh vegetables Canned or frozen vegetables without milk products 	<ul style="list-style-type: none"> All baby vegetables with milk Breaded vegetables Buttered vegetables Creamed vegetables Frozen french fries with milk Instant potatoes Vegetable products with milk
Breads, Cereals and Pasta	
<ul style="list-style-type: none"> Breads and rolls made without milk or dairy products. French bread Hot cereals Cold Cereals not containing milk Crackers: Graham crackers Oyster crackers Pretzels Saltines Pasta and Starches: Noodles (wheat and rice based) Rice Whole Grains 	<ul style="list-style-type: none"> Commercial breads, rolls, cereal, crackers made with milk or dairy English muffins (read label) Instant cream-of-wheat or oatmeal with milk Prepared Mixes: Biscuits Muffins Pancakes Waffles Crackers containing milk: Club-type crackers Flavored graham crackers Zweiback® crackers
Soups	
<ul style="list-style-type: none"> Clear soups and consommés Commercial soups without milk (read label carefully) Homemade soups 	<ul style="list-style-type: none"> Any soups with milk Chowders Commercial creamed soups
Fats	
<ul style="list-style-type: none"> Bacon Coconut butters or oil Margarine and dressings without milk Vegetable oils Vegetable shortening 	<ul style="list-style-type: none"> Butter Cream Cream cheese Ghee Margarine and dressings containing milk
Desserts	
<ul style="list-style-type: none"> Angel food cake Frozen fruit bars Fruit and flavored water ices Hard candy Homemade treats with no milk Gelatin Most fruit roll-ups and other fruit-type snacks Popsicle® 	<ul style="list-style-type: none"> Commercial cakes, cookies, donuts, or mixes with milk Custard Frozen yogurt Ice cream made with milk Pie crust with butter or margarine Pudding Sherbets

How do I substitute milk in recipes?

There are many milk alternatives made from nuts, legumes, seeds, peas, and grains. Flavors include original (plain), unsweetened, vanilla, and chocolate. Generally, the unsweetened and unflavored versions work best in recipes and can be substituted 1-for-1 in recipes.

When cooking, you can substitute non-dairy margarine or oils (in equal amounts) for butter.

Soy-based, coconut-based, almond and cashew-based, and pea-based cheese, yogurt, sour cream, and cream cheese products are available. Be sure to check the ingredient list as some products, especially cheese, may still have casein in them.

What about foods outside of the home?

School or daycare — Do this:

- Ask your child's school/daycare about their allergy action plan.
- Tell the school/daycare about your child's allergies.
- Give the school written allergy information.
- Provide them with emergency contact information.
- Give them a photo of your child.

Everywhere—Teach your child this:

- Which foods are safe and unsafe
- Not to trade food with others
- Not to eat any food with unknown ingredients
- What their allergic symptoms are
- How and when to tell an adult about allergy-related problems
- How to read food labels

When eating out — Use caution!

Many foods are made with binders or thickeners from milk products, or milk may be a main ingredient. Here are some tips to remember:

- Inquire about all menu items and food preparation before ordering.
- Be aware of cross-contact. For example: serving tongs for salad items, cooking utensils for multiple foods on the grill, etc.
- Find out if the meat is cooked on a grill that is also used for breaded items or dairy items (especially cheese).
- Ask if it can be cooked on a piece of aluminum foil or in a clean pan.
- Choose menu items that do not contain breading or sauces.

Where can I learn more?

- **Food Allergy Research and Education**
foodallergy.org
- **Kids with Food Allergies**
kidswithfoodallergies.org
- **Utah Food Allergy Network**
utahfoodallergy.org
- **American Academy of Allergy, Asthma, and Immunology**
aaaai.org
- **Academy of Nutrition and Dietetics**
eatright.org

For additional information and questions please contact the outpatient dietitian nutritionists at Primary Children's Hospital at 801.662.5325.