

can help you plan nutritionally balanced meals. You or your child may need to take supplements to replace calcium and nutrients found in milk, such as vitamin D and riboflavin.

Having a milk allergy does not mean you can not still enjoy eating. In fact, some people think that some of the milk substitutes — like vanilla soy milk — taste better than regular cow's milk. As with any specialized diet, you will probably find that avoiding milk gives you the opportunity to explore and discover some great foods that you would never have found otherwise plus you are feeling better!

Milk Alternatives

Rice and soy milk are good alternatives to cow's milk - but goat's milk is not. That is because the protein in goat's milk is similar to the protein in cow's milk and may cause the same allergic reaction.

For a Milk-Free Diet

Avoid foods that contain milk or any of these ingredients:

- butter, butter fat, butter oil, butter acid, butter ester(s)
- buttermilk
- casein
- casein hydrolysate
- caseinates (in all forms)
- cheese
- cottage cheese
- cream
- curds
- custard
- diacetyl
- ghee
- half-and-half lactalbumin, lactalbumin phosphate
- lactoferrin
- lactose
- lactulose
- milk (in all forms, including condensed, derivative, dry, evaporated, goat's milk and milk from other animals, lowfat, malted, milkfat, nonfat, powder, protein, skimmed, solids, whole)
- milk protein hydrolysate
- pudding
- Recaldent®
- rennet casein
- sour cream, sour cream solids
- sour milk solids

- tagatose
- whey (in all forms)
- whey protein hydrolysate
- yogurt

Milk is sometimes found in the following:

- artificial butter flavor
- baked goods
- caramel candies
- chocolate
- lactic acid starter culture and other bacterial cultures
- luncheon meat, hot dogs, sausages
- margarine
- miso
- nondairy products
- nougat

Keep the following in mind:

Individuals who are allergic to cow's milk are often advised to also avoid milk from other domestic animals. For example, goat's milk protein is similar to cow's milk protein and may, therefore, cause a reaction in individuals who have a milk allergy.



ALLERGY & IMMUNO THERAPY CLINIC
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Milk Allergy



What is an allergy?

An allergy refers to an exaggerated reaction by our immune system in response to exposure to certain foreign substances. It is exaggerated because these foreign substances are usually seen by the body as harmless and no response occurs in non allergic people. In allergic individuals, the body recognizes the foreign substance as harmful and one arm of the immune system generates a response.

What causes an allergy?

Allergy-producing substances are called "allergens." Examples of allergens include house dust mites, pollens, moulds, animal proteins, foods, and even medications.

To understand the language of allergy, it is important to remember that allergens are substances that are foreign to the body and can cause an allergic reaction in certain people. When an allergic individual comes in contact with an allergen, the immune system mounts a response through the IgE antibody. Therefore, people who are prone to allergies are said to be allergic or "atopic."

What is Milk allergy?

Milk allergy, one of the most common food allergies in children, is an abnormal response by the body's immune system to milk and products containing milk. Cow's milk is the usual cause, but milk from sheep, goats, buffalo and other mammals also can cause a reaction.

Avoidance is the primary treatment for milk allergy. Fortunately, most children outgrow a milk allergy. Those who do not outgrow it may need to continue to avoid milk products.

What causes Milk allergy?

Milk allergies are caused by an immune system malfunction. Your immune system identifies certain milk proteins as harmful, triggering the production of immunoglobulin E (IgE) antibodies to neutralize the protein (allergen). The next time you come in contact with these proteins, IgE antibodies recognize them and signal your immune system to release histamine and other chemicals, causing a range of allergic signs and symptoms.

There are two main proteins in cow's milk that can cause an allergic reaction:

1. **Casein**, found in the solid part (curd) of milk that curdles
2. **Whey**, found in the liquid part of milk that remains after milk curdles

You or your child may be allergic to only one milk protein or both. These proteins may be hard to avoid because they are also in some processed foods. And, most people who react to cow's milk will react to sheep's, goat's and buffalo's milk. Less commonly, people allergic to cow's milk are also allergic to soy milk.

Is it Milk allergy or Milk Intolerance?

A true milk allergy differs from milk protein intolerance or lactose intolerance. Unlike a milk allergy, intolerance does not involve the immune system. Milk intolerance causes different symptoms and requires different treatment from a true milk allergy.

Common signs and symptoms of milk protein intolerance or lactose intolerance include digestive problems, such as bloating, gas or diarrhea, after consuming milk or products containing milk.

What are the symptoms of Milk allergy?

Milk allergy symptoms, which differ from person to person, occur a few minutes to a few hours after drinking milk or eating milk products.

Immediate symptoms

- Hives
- Wheezing
- Vomiting

Late symptoms

- Loose stools, which may contain blood
- Diarrhea
- Abdominal cramps
- Coughing or wheezing
- Runny nose
- Watery eyes
- Itchy skin rash, often around the mouth
- Colic, in babies

Milk allergy can cause anaphylaxis, a life-threatening reaction that can narrow the airways and block breathing. Milk is the third most common food, after peanuts and tree nuts, to cause anaphylaxis.

Anaphylaxis is a medical emergency and requires treatment with an epinephrine (adrenaline) shot and a trip to the emergency room. Signs and symptoms start soon after consuming milk and can include:

- Constriction of airways, including a swollen throat that makes it difficult to breathe
- Facial flushing
- Itching
- Shock, with a marked drop in blood pressure

What are the risk factors?

Certain factors may increase the risk of developing a milk allergy:

- **Other allergies.** Many children allergic to milk also have other allergies. Milk allergy is often the first to develop.
- **Atopic dermatitis.** Children who have atopic dermatitis — a common, chronic inflammation of the skin — are much more likely to develop a food allergy.
- **Family history.** A person's risk of a food allergy increases if one or both parents have a food allergy or another type of allergy — such as hay fever, asthma, hives or eczema.
- **Age.** Milk allergy is more common in children. As they age, their digestive system matures, and their bodies are less likely to react to milk.

How is it diagnosed?

To evaluate whether you or your child has a milk allergy, your doctor may:

1. Ask detailed questions about signs and symptoms
2. Perform a physical exam
3. Have you keep a detailed diary of the foods you or your child eats
4. Have you eliminate milk from your diet or your child's diet (elimination diet) — and then have you add back the food to see if it causes a reaction

He or she may also recommend one or both of the following tests:

A skin prick test can find out whether you have antibodies that react to a specific allergen.



Skin prick test.

The skin prick test involves:

- ① Placing a small amount of substances that may be causing your symptoms on the skin, most often on the forearm, only in exceptional cases the skin of the prostrate back can be used as an alternative.
- ② The skin is then pricked so the allergen goes under the skin's surface.
- ③ The healthcare provider closely watches the skin for swelling and redness or other signs of a reaction. Results are usually seen within 15 to 20 minutes.

Your skin will be pricked and exposed to small amounts of the proteins found in milk. If you are allergic, you develop a raised bump (hive) at the test location on your skin.

Blood test.

A blood test can measure your immune system's response to milk by measuring the amount of immunoglobulin E (IgE) antibodies in your blood.

If your examination and test results can not confirm a milk allergy, your doctor might administer an oral challenge, in which you are fed different foods that may or may not contain milk in increasing amounts to see if you react to the ones that contain milk. Allergy tests are best administered by an allergist who is trained to manage serious reactions.

What preventive measures can you take?

The only way to prevent an allergic reaction is to avoid milk and milk proteins. This can be difficult because milk is a common ingredient in many foods. Also, some people with a milk allergy can tolerate milk in some forms, such as milk that is heated in baked goods, or some processed foods, such as yogurt.

Read food labels carefully. Look for casein, a milk derivative, which can be found in some unexpected places, such as in some canned tuna or nondairy products. Question the ingredients when ordering in restaurants.

How is Milk allergy treated?

Despite your best efforts, if you or your child accidentally consumes milk, medications such as antihistamines may reduce mild signs and symptoms of an allergic reaction. Taken after exposure to milk, an antihistamine may help relieve discomfort.

If you or your child has a serious allergic reaction (anaphylaxis), you may need an emergency injection of adrenaline and a visit to the hospital.

What are Milk alternatives for a child allergic to Milk?

Researchers suggest that breast-feeding during the first four to six months of a baby's life instead of giving a standard cow's milk formula can help prevent milk allergy. In children who are allergic to milk, breast-feeding and use of hypoallergenic formula can prevent allergic reactions.

Soy-based formulas are based on soy protein instead of milk. Soy formulas are fortified to be nutritionally complete — but, unfortunately, some children with a milk allergy also develop an allergy to soy.

If you or your child is on a milk-free diet, your doctor or dietitian