



**British Society for
Allergy & Clinical Immunology**

www.bsaci.org

Cow's milk allergy (1 of 2)

Some reactions to cows' milk involve the immune system while others are caused by difficulty digesting the milk. In medicine, the term cow's milk allergy is only used to describe reactions involving the immune system, while other reactions are normally called cow's milk intolerance.

Cow's milk allergy is common in infants and very young children, but rarely develops after one year of age. The onset is closely related to the introduction of cow's milk based infant formula. It affects about 1 child in 50 among children under one year old. Fortunately about half of these will outgrow their allergy by one year, and most children have outgrown it by the age of three years. However, in a small minority of people, cow's milk allergy may be lifelong and severe.

Symptoms of cow's milk allergy (CMA)

In early infancy, typical symptoms of CMA are tummy pain and vomiting. In a small number of infants there is nettle rash (hives), swelling of the face, eczema and cough, wheeze or difficulty breathing.

As the infant gets older, typical allergic reactions to milk include rash, hives and redness around the mouth, which can spread all over the body, runny nose, sneezing and itchy watery eyes, coughing, choking, gagging, wheezing and trouble breathing, abdominal cramps, vomiting and diarrhoea. The reaction can stop at any stage or may develop into anaphylaxis (a serious allergic reaction that affects several body organs).

Severe milk allergy

In severe cases, an allergic reaction to milk can develop after tiny amounts of milk. Strict avoidance of all traces of milk and all dairy products is the only way to

deal with this type of allergy. Some people choose to keep milk products out of the house. Emergency adrenaline (epinephrine) should be prescribed and kept nearby at all times.

Mild to moderate milk allergy

Small traces of milk products in cooked goods can be eaten without causing a reaction. Lactose (milk sugar) is usually tolerated (as the patient reacts to milk proteins, not milk sugars) but they should avoid milk, cream, cheese, yoghurt and ice cream.

Very mild milk allergy

Small amounts of processed dairy products (e.g. yoghurt and cheese) can be tolerated. These children are likely to outgrow their milk allergy at an early age.

Reactions through touch and smell

A food does not have to be eaten to cause a reaction, although eating it causes the more severe reactions. Hives can occur on skin contact with milk. If food gets into the body through a cut in the skin, or by contact on the lips or the eye, reactions can occur.

In some very sensitive patients, even the smell of a food, such as the cheese on a pizza, can cause symptoms. These are not normally severe unless the exposure involves extremely high concentrations. Generally reactions caused by smell tend to involve minor symptoms (e.g. itchy eyes, runny nose and sore throat).

Avoidance of milk

Degrees of avoidance will depend on the individual and the severity of the milk allergy.

New food ingredients labeling laws were voluntary from November 2004, and gained legal force from 25th November 2005. They include all prepacked foods, drinks and alcoholic beverages for sale within the European Union. A full

ingredients listing must be given for cows milk however small the amount. However producers do not have to state that the product may have been contaminated during production. Check food labels every time you shop – even if you have bought a product before. Recipes do sometimes change, and milk can be found in some unlikely foods.

Flavours and seasoning

Natural flavours and seasoning are terms to watch out for as they can contain milk proteins. They may be labelled only as natural flavouring or seasoning in products like crisps, processed meats, pies, sausages, biscuits and cakes. This is another reason why lists of milk-free products are valuable.

For the severely affected, avoidance and vigilance should also extend to other activities besides eating. Playtime maybe hazardous if other children are putting toys in their mouths. Ice creams melted into sand used for making sandcastles, and ice creams dropped in paddling pools, have also been known to cause problems on rare occasions.

Medicines

Many medicines contain milk products and lots of tablets are manufactured with the aid of lactose. Lactose does not normally contain the proteins responsible for causing reactions, but could possibly be contaminated with milk protein. People with very severe milk allergy may be wise to avoid anything with lactose in it.

A number of the dry powder asthma inhalers contain lactose although the aerosol ones all seem to be fine. There are currently no antihistamine tablets available in the UK that are free from lactose, so people with severe milk allergy are advised to stick to the syrups e.g. Loratadine (Claritin).



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Terms indicating the presence of cow's milk

Most foods containing any form of milk must declare milk in the contents label. However if no milk is declared it may well be worth looking for the following terms:

- Butter/butter fat/buttermilk/butterfat/butter oil
- Cow's milk/dairy/pasteurised milk
- Milk formula/whey/whey solids/whey powder/yoghurt/ghee
- Evaporated milk/semi-skimmed milk/skimmed milk
- Lactose-free milk formula/de-lactosed milk
- Reduced allergenicity milk formula
- Cream/cheese/cheese powder/curds/sour cream/sour milk
- Ice cream/milk solids/milk fat/ice milk
- Lactaid milk/Lacteeze milk
- Lactalbumin/Lactoglobulin/bovine serum albumin
- Casein/sodium and calcium caseinate
- Hydrolysed casein/rennet casein
- Hydrolysed milk protein
- Kosher symbol D

The above list may not be exhaustive.

Examples of foods and products which may contain milk

When in doubt check with the individual food companies.

- Cakes/biscuits/pies/breads
- Crisps/savoury snacks/pancakes/rolls/waffles
- Processed meats/sausages/frankfurters/some poultry
- Coffee whiteners
- Ready made meals/takeaway meals/restaurant meals
- Seasonings/some natural flavourings/binding agents
- Most vegetable margarines/butter substitutes
- Canned fish/gravy mixes/sweets/lollies/desserts
- Lactobacillus Acidophilus capsules
- Some washing up liquids/shampoos and creams
- Many tablets/capsules/vaccines
- Coconut cream or creamed coconut

The above list may not be exhaustive.

Some calcium supplements are derived from cow's milk (e.g. calcium lactobionate) and may contain trace impurities of milk proteins.

Treating symptoms

Most people with milk allergy find that antihistamines (e.g. loratadine, cetirizine) are usually sufficient to treat their symptoms. However if you have experienced breathing difficulties or anaphylaxis has been diagnosed, then you should carry adrenaline (epinephrine) autoinjector at all times (e.g. EpiPen or Anapen).

Alternatives to milk

A fully hydrolysed infant formula is the feed of choice and should be used. Although rare, there are infants who cannot tolerate this and require an elemental formula.

Soy milk may be suitable for babies over the age of six months, although some milk-allergic children may also react to soy. Cow's milk is very similar to other milks such as sheep and goat milk and both of these should not be given to milk allergic children.

Cow's milk intolerance

Milk intolerance is different to milk allergy and does not involve the immune system.

Patients may have gut symptoms, such as vomiting, diarrhoea and colic. These symptoms can develop over hours or days after ingesting a fair amount of cow's milk (over 120mls or 4oz). Delayed responses can occasionally produce severe symptoms resembling anaphylaxis, although this is rare. Milk intolerance cannot be diagnosed by skin or blood tests. Milk intolerance does not cause eczema, hives, or breathing difficulties. Antihistamines are not effective. Strict milk avoidance is not necessary, and traces of milk in baking can be safely eaten. Children with cow's milk intolerance may often have problems with soy milk. So if the child has been changed to a soy formula and is no better it may be worth another substitute milk.

Lactose intolerance (Lactase deficiency)

Some people are intolerant of milk because they lack the enzyme lactase, which is the enzyme needed to digest the sugar found in milk, called lactose. People with a lactose intolerance need to avoid milk, butter, cream, and some soft cheeses. They may also be affected by the lactose added to margarine and coffee creamers and also used as a filler in medicines. Hard cheeses are usually well tolerated.

**The Anaphylaxis Campaign is a national charity that can provide further information and support.
Contact:**

The Anaphylaxis Campaign
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www.anaphylaxis.org.uk