

Cow's milk (dairy) allergy

Cow's milk is a common cause of food allergy in infants. In Australia and New Zealand around 2 per cent (1 in 50) infants are allergic to cow's milk and other dairy products. Although most children outgrow cow's milk allergy by the age of 4 years, persistent cow's milk allergy may sometimes occur. However, ongoing symptoms in adults are very rare.

Reactions occur within minutes or up to several days after having cow's milk (dairy) products

If your child has cow's milk (dairy) allergy, symptoms may occur:

- 1. Within minutes or up to 2 hours after having a small amount of cow's milk.**
Symptoms can include hives (urticaria), eczema, face swelling, vomiting, diarrhoea, noisy breathing or wheeze. Severe allergic reactions (anaphylaxis) may cause floppiness in babies.
- 2. Several hours after having moderate amounts of cow's milk.**
Symptoms can include vomiting and diarrhoea and sometimes blotchy rashes or worsening eczema.
- 3. After a day or up to several days after having normal amounts of cow's milk.**
Symptoms can include eczema, vomiting, diarrhoea or asthma.

Reliable diagnosis is important

In people with immediate allergic reactions to cow's milk (within minutes or up to 2 hours), diagnosis is usually obvious. This can be confirmed by your doctor using allergy tests (skin prick tests or blood allergen specific IgE tests).

There is no place in the diagnosis of milk allergy for unproven tests such as Vega, kinesiology, Alcat or allergy elimination tests.

When symptoms occur several hours or days after having cow's milk, diagnosis of cow's milk allergy is usually not as obvious and allergy tests are often not useful in these cases. Confirmation of the diagnosis usually requires a referral to a clinical immunology/allergy specialist.

Treatment involves avoidance of dairy products

Treatment of cow's milk allergy involves removal of cow's milk and other dairy products from the diet and substitution with an appropriate formula for infants.

However, avoiding dairy products in children is not easy. Most children allergic to cow's milk will be allergic to goat's milk, therefore products made from goat's milk usually trigger similar symptoms.

To ensure avoidance of these products, it is important to read all labels of prepared foods and avoid any food which contains cow's or goat's milk, cheese, butter, ghee, butter milk cream, cream fraiche, milk powder, whey, casein, caseinate and margarines which contain milk products.

More information about cow's milk allergy and dietary avoidance is available from the ASCIA website: www.allergy.org.au/patients/food-allergy/ascia-dietary-avoidance-for-food-allergy

Dietary restrictions should be supervised

Avoidance and reintroduction of cow's milk and other dairy products should only be undertaken with advice from a medical specialist, particularly in cases with severe symptoms (anaphylaxis).

Removal of cow's milk entirely from the diet is usually difficult and needs to be done in consultation with a medical specialist and specialist dietitian.

If long term exclusion is required, patients require an alternative source of calcium and protein, and advice from a dietitian should be sought. This applies to the affected child and to their mother if dietary exclusion during breastfeeding is required. After confirming cow's milk allergy, your doctor will usually recommend replacing dairy products with alternative formulae, which may include:

1. Soy protein formula

Around 50 to 80 per cent of children with cow's milk allergy can tolerate soy based formulae. However, in children allergic to soy, it is not a suitable substitute.

2. Extensively hydrolysed formula (EHF)

This formula has been treated with enzymes to break down most of the proteins that cause symptoms in infants who are allergic to cow's milk. These are usually the formula of first choice in milk allergic children. However, since some children will still react to this formula, sometimes an amino acid based formula is advised.

EHF is different to partially hydrolysed formula and the latter is not a suitable formula for children with cow's milk allergy.

3. Amino acid based formula

This formula is necessary in around 10 per cent of children with cow's milk allergy will be tolerated by almost all children with cow's milk and soy allergies.

Some formulae are unsuitable for children with cow's milk allergy

Children allergic to cow's milk are usually allergic to a number of proteins present in dairy products. Since similar proteins are present in other animal milks such as goat's milk and horse milk, these products can also trigger allergic reactions, and should be avoided. So-called "A2 milk" (from specially bred cows) is claimed to have a number of health promoting properties, however, A2 milk is also unsuitable for cow's milk allergic children. Partially enzyme treated cow's milk formula (partially hydrolysed formula often labelled as 'HA') are also **not** suitable for children with cow's milk allergy.

Cow's milk allergy usually resolves

Around 80 per cent of babies will grow out of their allergy by the age of 3-5 years. Assessment of this likelihood and the reintroduction of dairy products should be undertaken by a clinical immunology/allergy specialist. Depending on the history and severity of the original reactions, this may require further allergy testing and deliberate food challenge, which is usually performed in a hospital setting.

Not all reactions to cow's milk are due to allergy

Lactose intolerance is caused by the lack of the enzyme lactase, which helps to digest the milk sugar lactose. The symptoms are diarrhoea, vomiting, stomach pain and gas, which are similar to some of the symptoms of cow's milk allergy. This condition is uncomfortable but not dangerous, and does not cause rashes or anaphylaxis. Small amounts of cow's milk are usually tolerated. Yoghurts and hard cheeses are usually tolerated more than cow's milk, as they contain less or easier to digest lactose than cow's milk. Skin or blood allergy tests are negative for lactose intolerance. If necessary, the diagnosis can be confirmed by a breath hydrogen test. Treatment may involve reducing or avoiding consumption of dairy products containing lactose and substituting these with a lactose free formula or milk.

Milk and mucus

Respiratory allergy such as asthma and allergic rhinitis (hay fever) is normally triggered by what we inhale, rather than what we eat. Some people complain that they have a short-lived sensation of thick mucus in the throat after drinking milk. This feeling poses no risk and is not an allergic reaction. In very young infants, runny noses are most commonly due to infection. If you wish to avoid cow's milk, however, you should still ensure a nutritionally adequate intake of calcium by selecting suitable substitutes. Consult your doctor or a dietitian if unsure.

Further information

ASCIA Dietary avoidance information sheets:

www.allergy.org.au/patients/food-allergy/ascia-dietary-avoidance-for-food-allergy

ASCIA Guidelines for infant feeding and allergy prevention:

www.allergy.org.au/patients/allergy-prevention

ASCIA Patient information - milk, mucus and cough:

www.allergy.org.au/patients/food-other-adverse-reactions/milk-mucus-and-cough

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