

## **Cow's Milk (Dairy) Allergy**

### **Frequently Asked Questions**

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#### **Q 1: Is cow's milk (dairy) allergy common?**

Cow's milk and other dairy foods are common allergy causing foods in babies. In Australia and New Zealand more than 2% (1 in 50) of infants are allergic to cow's milk protein. Most children outgrow cow's milk allergy by the age of three to five years, but it can remain a lifelong allergy.

#### **Q 2: How quickly can allergic reactions to cow's milk and other dairy foods happen?**

Rapid onset allergic reactions can occur within 15 minutes and sometimes up to two hours after consuming cow's milk or other dairy foods. Symptoms include one or more of the following:

- **Mild or moderate allergic reactions** such as swelling of lips, face eyes, hives (urticaria) or welts on the skin, stomach (abdominal) pain, vomiting and diarrhoea.
- **Severe allergic reactions (anaphylaxis)** include noisy breathing or wheeze, swelling or tightness in throat, or young children may be pale and floppy.

Anaphylaxis to cow's milk can be life threatening and should always be treated as a medical emergency. Anaphylaxis requires immediate treatment with adrenaline (epinephrine), which is injected into the outer mid-thigh muscle. Delayed treatment can result in fatal anaphylaxis. Deaths from cow's milk anaphylaxis have occurred in allergic babies and children.

#### **Q 3: Can there be delayed allergic reactions to cow's milk and other dairy foods?**

Delayed allergic reactions usually occur two or more hours after your child has consumed cow's milk or other dairy foods. Symptoms may include an increase in eczema or delayed vomiting, and/or diarrhoea. Allergy tests to cow's milk are usually negative for these reactions. This is known as non IgE-mediated cow's milk allergy.

#### **Q 4: How is cow's milk allergy diagnosed?**

Diagnosis of allergic reactions is usually obvious if symptoms occur soon after your child has consumed cow's milk or other dairy foods. This can be confirmed by your doctor after taking a medical history and using allergy tests.

Allergy tests (skin tests or blood tests), that measure allergen specific antibodies called Immunoglobulin E (IgE), to cow's milk are usually positive for rapid onset reactions. This is known as IgE-mediated cow's milk allergy.

Diagnosis should be made in consultation with a clinical immunology/allergy specialist and/or specialist paediatrician. This usually involves excluding cow's milk and other dairy foods from the diet for a trial period of one to four weeks to check for a clear improvement. A planned reintroduction of cow's milk and other dairy foods should occur to confirm diagnosis before longer term exclusion is advised.

There is no place in the diagnosis of cow's milk allergy for non evidence-based tests such as cytotoxic food testing, kinesiology, hair analysis, vega testing (electro-diagnostic), electrodermal testing, pulse testing, reflexology, Bryan's or Alcat tests, and Immunoglobulin G (IgG) to foods.

### **Q 5: How is cow's milk allergy managed?**

Once diagnosed by a health professional, management of cow's milk allergy involves excluding cow's milk and other dairy foods from the diet, unless otherwise recommended by your doctor. All people with food allergy should have an ASCIA Action Plan to help manage an allergic reaction. People with cow's milk allergy who are at risk of anaphylaxis may be prescribed adrenaline injectors by their doctor or nurse practitioner.

To exclude cow's milk and other dairy foods it is important to read all ingredient labels and exclude any food which contains milk, unless otherwise advised by your doctor. Most people who are allergic to cow's milk will be allergic to other animal milks (goat, sheep, camel or horse/mare), and foods that are made from these milks.

Cooked or baked cow's milk in muffins, cakes or biscuits are tolerated by some people with cow's milk allergy. However, unless you are already certain that cooked or baked cow's milk is tolerated, you should discuss this with your clinical immunology/allergy specialist before introducing these foods at home.

People with cow's milk (dairy) allergy must avoid medicated toothpastes, chewing gums and any other dental products containing *Recaldent*<sup>™</sup> which is made from cow's milk protein.

ASCIA Dietary Guides for food allergy are available at [www.allergy.org.au/patients/food-allergy/ascia-dietary-avoidance-for-food-allergy](http://www.allergy.org.au/patients/food-allergy/ascia-dietary-avoidance-for-food-allergy)

### **Q 6: Should dietary restrictions for cow's milk allergy be supervised?**

Yes. Exclusion and reintroduction of cow's milk and other dairy foods should only be undertaken with advice from a medical specialist (and in many cases, a dietitian), particularly in cases of anaphylaxis. If long-term exclusion is required, an alternative source of calcium and protein is needed, to ensure adequate nutrition and growth.

Excluding foods from the diet during breastfeeding is rarely required, and if recommended, the maternal nutritional intake should be supervised, assessed and reviewed by a dietitian. Babies and children who need to exclude cow's milk and other dairy foods should also be supervised, assessed and reviewed by a dietitian.

### **Q 7: What are alternative milk options for babies (up to one year of age)?**

#### **Soy protein formula**

- Tolerated by most babies with cow's milk allergy.
- Unsuitable for babies allergic to soy.
- Usually only recommended for babies over six months old.

#### **Cow's milk based extensively hydrolysed formula (EHF)**

- EHF has been treated with enzymes to break down most of the cow's milk proteins and it is usually the formula of first choice in cow's milk allergic babies.
- EHF is not suitable for babies who have had anaphylaxis to cow's milk.
- Some EHF brands are available without prescription.
- An amino acid-based formula (AAF) is usually prescribed if a baby reacts to EHF.
- Partially hydrolysed formula (commonly labelled HA) is not a suitable formula for babies with cow's milk allergy as enough allergenic protein is usually present to trigger an allergic reaction.

### Rice protein based formula

- May be used as an alternative formula to EHF or soy protein formula and continued or changed based on specialist advice.
- Available without prescription.
- Should not be used in babies with food protein induced enterocolitis syndrome (FPIES) to rice.

### Amino acid-based formula (AAF)

- Necessary in around one in ten babies with cow's milk allergy.
- Usually prescribed when an EHF or soy protein formula is not tolerated.
- Tolerated by most babies with cow's milk and soy allergies.

### Q 8: What are alternative milk options for children over one year of age?

Soy milk or calcium enriched milks (rice, oat, nut) may be recommended by your doctor and/or dietitian, depending on your child's condition. It is important to check if the alternative milks:

- Contain adequate levels of protein and fat for young children for growth.
- Are enriched with calcium around 120mg/100mL to be a suitable cow's milk replacement.

Children with multiple food allergies may need to continue with specialised formula to meet their nutritional requirements. Babies should be reviewed by a dietitian at around 12 months of age so the need for specialised formula can be considered.

### Q 9: What types of formula or milk are unsuitable for people with cow's milk allergy?

Cow's milk derived formula/milk, lactose free formula/milk, goat's milk formula/milk, sheep's milk formula/milk, camel's milk, HA formula and A2 formula/milk are not suitable for people with cow's milk allergy and may cause anaphylaxis.

### Q 10: Can cow's milk allergy resolve?

Around 80% of children will outgrow their cow's milk allergy by the age of three to five years. Your doctor should advise if further allergy testing and food allergen challenges are needed. These are usually performed in hospital clinics and supervised by a clinical immunology/allergy specialist.

### Q 11: Does cow's milk cause other reactions?

Yes, not all reactions to cow's milk are due to cow's milk protein.

**Lactose intolerance** is caused by the lack of the enzyme lactase, which helps to digest the milk sugar called lactose. Symptoms include diarrhoea, vomiting, stomach (abdominal) pain and gas (wind or bloating). This condition is uncomfortable but not dangerous and does not cause rashes or anaphylaxis. Allergy tests to cow's milk are negative in people with lactose intolerance. Diagnosis is by temporary elimination of lactose and reintroduction.

**Milk, mucus and cough.** Some people complain that when they drink cow's milk or eat other dairy foods, that their throat feels coated, and their mucus is thicker and harder to swallow. Research has shown that these sensations occur with similar liquids of the same thickness and are not due to increased production of mucus.

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