

## Cow's Milk Allergy: The Facts



This Factsheet aims to answer some of the questions that you and your family might have about living with a cow's milk allergy. Our aim is to provide information that will help you to minimise risks and know how to treat an allergic reaction should it occur.

Our main focus is on infants and young children with a **particular type of cow's milk allergy** where the symptoms are immediate: that is, they usually occur within seconds or minutes of contact with cow's milk or a product containing cow's milk. In its extreme form, there is the possibility of anaphylaxis – the term for a life-threatening allergic reaction.

However, other important conditions where cow's milk can also act as the trigger will be addressed, such as delayed cow's milk allergy and lactose intolerance. As will be explained in the text, these other conditions require a different approach.

There is also a short section on cow's milk allergy in older children and adults. Although uncommon, milk allergy in this age group can be particularly severe.

Throughout the text you will see brief medical references given in brackets. Full references are provided at the end.

### Immediate cow's milk allergy in infants and young children

#### The causes

Immediate cow's milk allergy is well understood by doctors. It occurs when the body's immune system wrongly perceives some of the proteins in cow's milk to be a threat and, as a result, produces antibodies of the Immunoglobulin E class (known as IgE for short). These antibodies are specifically targeted against one or more of the cow's milk proteins.

Subsequently, whenever the child comes into contact with milk, these antibodies trigger certain chemicals such as histamine to be released from special immune system cells in the blood and tissues where they are stored. It is the sudden release of these chemicals in the body that causes the symptoms.

Immediate onset milk allergy often occurs when formula milk is introduced to the infant's diet or when the child is weaned on to solids and dairy products are introduced. There is often but not always a close family history of allergy such as eczema, hay fever, asthma or food allergy in a mother, father, brother or sister.

## The symptoms

Symptoms of immediate cow's milk allergy usually occur within minutes of the milk protein being ingested, although uncommonly there can be a delay of up to two hours.

These symptoms may include

- Widespread flushing of the skin
- Nettle rash (otherwise known as hives or urticaria)
- Swelling of the skin (known as angioedema) anywhere on the body.
- Swelling of the lips
- Abdominal pain, nausea and vomiting

Those symptoms are not serious on their own but may be an early sign of anaphylaxis. It is vital to be alert to any deterioration.

More severe symptoms include:

- Swollen tongue
- Hoarse voice
- Difficulty swallowing
- Difficult or noisy breathing, wheeze, persistent cough
- Faintness, drowsiness, dizziness

When those symptoms occur, the child's breathing may be compromised with reduced oxygen levels.

In rare cases there may be a dramatic fall in blood pressure (anaphylactic shock). The person may become weak and floppy and may have a sense of something terrible happening. This may lead to collapse, unconsciousness and – on very rare occasions – death.

Most children with immediate onset milk allergy experience mild or moderate symptoms when they suffer their first reaction. However, experience shows that a subsequent accidental exposure to milk may cause more severe reactions in some but not all children, so care must be taken. It is important to

discuss with your healthcare provider whether your child may be at risk of more severe allergic reactions.

## Getting a diagnosis

If your child experiences any untoward symptoms believed to have been triggered by cow's milk, it is important to see your GP.

Some GPs have a clear understanding of allergy, but immediate onset allergy is a specialist subject, so it is more likely that your GP will need to refer you to an allergy clinic. Your GP can locate an allergy clinic in your area by visiting the website of the British Society for Allergy and Clinical Immunology (BSACI): <https://www.bsaci.org/find-a-clinic/index.htm>

Once you get a referral, a member of the allergy team will discuss your child's symptoms with you in detail as well as your family's possible wider history of allergy.

Valuable information can be provided through allergy tests, such as skin prick tests and blood tests. These tests can help the doctor or specialist nurse predict the likelihood that a specific food, or substance, will cause an allergic reaction. They do **not** predict how severe such a reaction might be.

Occasionally the allergy team may offer a "food challenge" to confirm diagnosis of allergy to a specific food or to rule out food allergy. The person will be asked to eat small amounts of the suspect allergen, in this case milk, gradually increasing the amount until it is clear that he or she is not allergic, or else a reaction occurs. Such tests should **only** be done in an allergy clinic under controlled conditions unless the allergy specialist is sure it is safe to test at home.

## Future reactions

There may be clues that help the allergy clinic staff judge whether a future reaction is likely to be severe.

Certainly if the first reaction was severe, any future symptoms are also likely to be serious. Also, if the child has ongoing asthma symptoms, this may suggest an allergic reaction to milk could be severe.

There are other factors that can determine the severity of a reaction. These include:

- The child's general health on the day. For example, if he/she has a viral infection at the time, any allergic reaction could be particularly severe
- The amount of milk protein that sets off the reaction. If the child ingests a significant amount then a severe reaction is more likely to occur

- If the reaction was triggered by highly-processed dairy, as in extensively hydrolysed casein formula milk, this indicates a more severe and persistent form of milk allergy.
- Heavy exercise or emotional stress may also increase the severity of reaction.

Research is now showing that in some cases measurement of the level of specific IgE to individual proteins contained in milk will provide some indication of potential severity on future exposures to milk (Petersen et al 2018).

## The need for a dietitian's support

The initial advice following the diagnosis of milk allergy is usually the complete avoidance of cow's milk and foods containing processed cow's milk such as in cheese, yoghurt etc in your child's diet. Referral to a registered dietitian can be made by either your GP or allergy clinic. Whilst waiting to be seen by the dietitian, it would be helpful if your doctor is able to give you some initial verbal advice and supply some written advice on avoidance and what can be eaten instead.

The British Dietetic Association (BDA) provides a helpful list of alternatives to cow's milk. This can be accessed free of charge at [www.bda.uk.com/foodfacts](http://www.bda.uk.com/foodfacts) under 'Babies, Children & Pregnancy'.

The Anaphylaxis Campaign can also provide information, advice and ongoing support on immediate cow's milk allergy. Call our Helpline on 01252 542029 or email [info@anaphylaxis.org.uk](mailto:info@anaphylaxis.org.uk)

## Feeding your child

### The importance of breastfeeding

The incidence of cow's milk allergy is lower in exclusively breastfed infants compared to formula-fed or mixed fed infants. Only about 0.5% (1 in 200) of exclusively breastfed infants are allergic to the cows' milk in the mother's own diet and most symptoms are mild to moderate (Vandenplas et al, 2007). Immediate onset milk allergy usually begins when cow's milk-based infant formula is introduced or when other sources of dairy products containing milk protein are introduced as the child is weaned onto solids.

If your breastfed infant has been diagnosed with cow's milk allergy you should continue to breastfeed and seek urgent specialist allergy help including dietetic advice to ensure you avoid all cows' milk from your own diet (Isolaurei et al, 1999). This is because some of the proteins from the cow's milk you drink will get into your breast milk. You are likely to need calcium and Vitamin D supplements during this process to ensure you still get these necessary nutrients in your diet (NICE, 2014).

### **Hypoallergenic formulas**

If your infant is allergic to cow's milk, you may be recommended a hypoallergenic infant formula where the protein content has been specially prepared, reducing the allergenicity of the milk proteins.

In very severe cases, it may be necessary to use an 'amino-acid formula'. These do not contain any cow's milk.

These two groups of hypoallergenic formulas are available on prescription and your doctor will know which one to prescribe. They are all designed to be nutritionally complete milks for your child.

### **The 'Comfort' range of formulas**

There is a further group of special formulas where the cow's milk protein is only partially broken down. These are the 'Comfort' range of formulas, available over the counter. However, they are not sufficiently hypoallergenic to have any role in the management of cow's milk allergy in children (NICE 2014)

### **Lactose-free milk**

Lactose free milk is not suitable as it still contains the milk proteins which cause allergic reactions.

### **Soya protein-based formulas**

These are not considered a suitable alternative to cow's milk for infants less than six months old. However, they can be used in some children over six months of age who have been shown to have no allergy to soya (British Dietetic Association, 2010).

### **Rice milk and other milk substitutes**

Rice milk is not advised before the age of four and a half years. Ready-made soya, oat, coconut, almond, pea and other 'milk' substitutes may be used after two years of age or perhaps earlier in the second year of life at the discretion of your dietitian. A brand fortified with calcium should be used where possible (NICE milk allergy guideline 2014).

### **Milk from other mammals**

The milks from all mammals share to varying extent similar proteins and therefore none of these alternative mammalian milks are recommended for use. The milk from those mammals that are most closely related to humans – goats, sheep, and buffalos – are the mostly likely to cause similar allergy symptoms. The milk from donkeys, horses and camels are perhaps a little less likely to cause such symptoms (World Allergy Organisation milk guideline 2010).

## Weaning onwards

Children with immediate cow's milk allergy should initially avoid milk in all forms. As well as the obvious ingredients (such as cream), avoid the following:

- Cheese
- Yoghurt
- Butter, butter fat, buttermilk or butter oil
- Ice cream (even when sold as non-dairy – products called ice cream in the UK must contain at least 2.5% milk protein)
- Fromage frais
- Crème fraiche

This is not a full list and there are many other food products that contain milk protein.

## Is immediate type cow's milk allergy outgrown?

In the vast majority of cases, all types of cow's milk allergy are outgrown during childhood. The speed with which this happens varies, so the question of when milk can be reintroduced into the diet will need to be assessed by your healthcare professionals. Delayed onset non-IgE allergy will usually be outgrown more rapidly than immediate onset IgE allergy (Luyt et al BSACI milk allergy guideline 2014).

The most recent evidence suggests that approximately half of children with immediate onset milk allergy will outgrow it by five years of age (Sicherer et al 2010) (Elizur et al 2012). After that, it can still be outgrown but a few children will carry their milk allergy into adult life.

Immediate onset milk allergy is more likely to persist in a child in the following cases (BSACI milk allergy guideline 2014):

- The initial or subsequent reactions were severe
- The child reacts to even baked milk products
- The positive allergy skin prick tests or the blood tests are in the higher ranges
- There are other food allergies present, most commonly egg allergy
- The child goes on to show other allergies such as asthma or allergic rhinitis (for example, triggered by dust mite/pets/grass pollens).

## Heated or baked milk

Heating alone does not change the allergenic potential of cow's milk so most, but not all, allergic children will also react to boiled milk.

However, when milk is present in baked food (such as cake) the allergenic potential of the food is reduced. There is now growing evidence that if a child with milk allergy can be shown at an early age to tolerate baked milk and is then allowed to eat it regularly, their full tolerance to all forms of milk protein could be speeded up. In an American study, 75 per cent of children with immediate cow's milk allergy (IgE-mediated) were able to tolerate baked milk without suffering a reaction (Nowak-Wegrzyn A. et al 2008).

In UK specialist allergy clinics it is therefore becoming increasingly common practice to discuss with the families of young children with immediate onset milk allergy the possibility of carrying out a planned baked milk 'challenge'. In some milder cases your allergy specialist may allow a home reintroduction of the baked milk (Luyt D et al 2014) but it is usually advised to be carried out under supervision by a healthcare professional as a day patient.

If your child passes this challenge with baked milk, then a 'milk ladder' approach will usually be recommended: starting with several baked milk products and then 'climbing up' the ladder in individual steps of gradually less well baked meals.

How far your child will be allowed to progress up this 'ladder' will need to be decided and monitored by your dietitian or doctor. The final step of each ladder will be a planned challenge with fresh milk and when and where this is carried out will need to be carefully decided by your allergy specialist.

## Immediate cow's milk allergy in older children and adults

Cow's milk allergy may begin in adult life or persist from childhood. In the adult age group, however, this form of allergy is rare – with an estimated prevalence of approximately 1 adult in 200 (Woods RK et al 2002) (Zuberbier T et al 2004). Milk allergy in adulthood is likely to be severe and persistent and anaphylaxis (a life-threatening allergic reaction) is a possibility in many cases. Symptoms may affect the person's respiratory and cardiovascular systems, and there could even be a severe fall in blood pressure (anaphylactic shock).

The majority of adults with milk allergy also have asthma. Therefore, emergency treatment with adrenaline should always be considered and these patients should be under the care and monitoring of clinicians experienced in the care of severe food allergy in adults. (Luyt D et al 2014).

Milk in all forms must be avoided. See our section on Food labelling below.

Read our Factsheets on:

[Anaphylaxis](#)

[Adrenaline](#)

## Treating an allergic reaction

There are two main treatments for allergic reactions triggered by milk, depending on how serious the symptoms are.

**Oral Antihistamines:** These are usually sufficient to treat mild to moderate immediate symptoms, which are most often skin symptoms. An antihistamine should always be readily available for most children with any expression of immediate IgE milk allergy.

**Adrenaline:** Anyone who is at risk of a life-threatening reaction (anaphylaxis) will be prescribed an adrenaline auto injector (AAI). Even very young children are prescribed adrenaline if there is a risk that their allergy could be life-threatening.

The three adrenaline auto-injectors currently available on prescription in the UK are EpiPen, Jext and Emerade. These auto-injectors are designed for self-administration. If your child is prescribed adrenaline, it should be available at all times – with no exceptions. Immediate medical attention should be sought after use by dialling 999 and saying 'anaphylaxis'.

You will need to know how and when to use the AAI and the prescribing healthcare professional should see that this advice is given. You can also find help on the website relevant to the injector you will be carrying for yourself or for your child.

- EpiPen: [www.epipen.co.uk](http://www.epipen.co.uk)
- Jext: [www.jext.co.uk](http://www.jext.co.uk)
- Emerade: [www.emerade-bausch.co.uk](http://www.emerade-bausch.co.uk)

There is considerable ongoing debate among UK specialist allergy services as to whether one or two devices should be available to patients at each location. Your allergy team will advise on the number of devices that you will need for your child. The view of the Medicines and Healthcare products Regulator Agency (MHRA) is that two devices should be available with you at all times in case one is broken or misfires, or a second injection is needed before emergency help arrives. The Anaphylaxis Campaign agrees with this view.

## Avoiding milk

### Food labelling

By law, cow's milk must always be declared and highlighted in the ingredient list when present in pre-packaged food. It is important to check food labels thoroughly every time you shop – even if you have bought a product before. Recipes do sometimes change.

Sometimes you may see such terms as casein, whey, sodium caseinate and calcium caseinate. These are all types of milk protein and must be avoided. Your dietitian will help you understand exactly what to avoid.

Many pre-packaged foods contain milk while others don't. It can appear in products where it wouldn't be expected. For instance, milk is an ingredient of some energy drinks and some fruit drinks.

When preparing food at home, care should be taken to ensure that cross contamination does not occur. Separate utensils and dishes should be used where necessary and then washed thoroughly (not just rinsed).

When eating out, or buying non-packaged food from places such as bakery counters, always question the staff diligently about the ingredients of food you buy. The law requires food outlets selling non-packaged foods and catering establishments to provide information on major allergens, including milk.

Apart from checking food labels, also read the ingredient lists of health care products and cosmetics.

**Dark or plain chocolate:** Although plain chocolate (also known as dark chocolate) does not usually have milk as an intentional ingredient, there can be a high risk of cross-contamination on the production line. The Government's Food Standards Agency (FSA) accepts that this is a risk. The Anaphylaxis Campaign advises anyone with immediate cow's milk allergy to be extremely cautious of plain chocolate. Some manufacturers of specialist brands claim to have removed the risk of cross-contamination. If you think this may be the case with a particular brand, contact the manufacturer.

**Finings:** People expect wine to look clear and appealing and there are many ways to improve the clarity of a wine, the most straightforward of which is fining. Fining is the act of adding a product to wine to remove suspended solids. In some wines, the fining that producers use is derived from milk. For most people with milk protein allergy, this is unlikely to cause a problem because the amount of milk protein present will be extremely small. However, under the law, wines from the 2012 vintage onwards which are produced using milk as a fining agent must state an allergens warning on the label if the amount exceeds 0.25 milligrams per litre.

**Condoms:** Milk protein is used in the manufacture of most condoms. We have heard reports of people with milk allergy reacting with skin irritation and soreness. If this is a concern for you, we recommend that you contact individual manufacturers of condoms to find out if they do indeed use milk protein in their manufacture of their condoms. We are not aware of any medical evidence that determines how risky this is.

**The MMR:** The MMR does not contain milk allergens. However we are aware of a case where a milk-allergic child had a severe allergic reaction after receiving a single measles vaccine from France. This contained a milk protein. The parents had decided they did not want their child to have the MMR. Any

parent who wants their child to have the single measles vaccine is strongly advised to find out the ingredients of the vaccine.

## Reactions through touch and inhalation

Severe reactions will usually only occur when the milk protein is actually ingested although reactions can be triggered by either touch or inhalation.

A splash of milk on the skin can cause immediate symptoms such as redness or hives, otherwise known as urticaria. Inhaled cow's milk protein which can occur where milk or milk products are being heated, cooked or prepared can also cause immediate reactions in very sensitive people. In coffee shops, 'frothing milk' has been known to cause itchiness in the eyes and nose. Based on clinical experience, these reactions are unlikely to be life-threatening for the vast majority of milk allergic children. However, it is sensible to be cautious and if your milk allergy (or your child's) is particularly severe, you should talk to your allergy team about these types of contact reactions with milk.

Also, if the milk were to get through a cut in the skin, onto the lips or in the eye then it is more likely a reaction could be more serious. The area of contact with the milk should be washed with liberal quantities of water. If a severe reaction is suspected, emergency treatment will be necessary.

## Delayed cow's milk allergy (non-IgE milk allergy)

This section has been written for any parent whose baby or infant suffers from this form of allergy.

Formerly referred to as cow's milk protein intolerance, this form of milk allergy can occur with breast feeding alone (exclusive breast feeding) due to the small amount of cow's milk protein that passes across into the breast milk when the mother herself consumes cow's milk or dairy products. However this is uncommon.

It can occur later in such breast fed infants when the time comes for formula, dairy products or cow's milk to be added into the diet. However, it is much more likely to occur in infants who are only being bottle fed.

As with immediate onset milk allergy, there is often but not always a close family history of allergy such as eczema, hay fever, asthma or food allergy in a mother, father, brother or sister.

## Symptoms

The typical symptoms of delayed cow's milk allergy are one or more of the following. Gastrointestinal symptoms are usually the most prominent.

- **Gastrointestinal.** Reflux, vomiting, colic, refusing or disliking being fed. Loose or frequent stools, redness around the bottom, constipation (especially straining to pass even a soft stool), apparent pain in the tummy, a little blood or slime in the stools of an otherwise well infant (the latter mostly occurring in breast fed infants)
- **Skin.** Itching of the skin, redness of the skin, unexplained rashes, significant eczema (dry inflamed itchy patches of skin)
- **Respiratory (the airways).** Sometimes airway/nasal 'snuffly' or 'catarrhal' symptoms, usually along with some of the other symptoms above

Should any of these symptoms be affecting your child, you should discuss them promptly with your health visitor or GP.

## Getting a diagnosis

Delayed cow's milk allergy is much less easy to diagnose than immediate onset milk allergy because the symptoms can occur hours or even days after ingestion – making it difficult to associate the food responsible with the symptoms. Also, it is not possible to diagnose delayed cow's milk allergy using allergy tests (skin prick tests and bloods tests).

In addition, the symptoms of delayed cow's milk allergy can be similar to those of common ailments such as colic, reflux, disturbed stools and eczema.

The only reliable test for delayed cow's milk allergy is to take all the cow's milk protein out of the diet of the exclusively breast feeding mother, or out of the diet of the bottle fed infant, and then to later reintroduce it in a planned way (NICE 2011). Talk to your healthcare professional about this. All cow's milk must be removed for two to four weeks. This is the time it may take for the symptoms to improve.

If you are breast-feeding, your healthcare professional will advise how your diet will need to change and will also prescribe a daily calcium and vitamin D supplement for you.

If you are bottle feeding your healthcare professional will prescribe a special nutritionally complete low allergen formula (hypoallergenic formula –see earlier text) for your infant. If he/she has already been started to be weaned onto solids you will be advised how to remove all cow's milk protein from their weaning food. During the trial, the symptoms will either begin to improve, suggesting allergy was indeed the cause of symptoms, or there will be no change, which usually excludes the diagnosis of allergy.

At the end of the two to four weeks, unless your child's symptoms have been assessed as potentially severe, you are likely to be asked to reintroduce the cow's milk protein to confirm the diagnosis. If exclusively breast feeding, you can simply start eating dairy products again. If your infant is bottle fed the previous cow's milk-based formula can be reintroduced and your doctor or dietitian will provide you with details of how to do this gradually, safely and easily at home. This will show whether any improvement seen in symptoms during the trial was actually due to cow's milk allergy and not just to your infant improving naturally. If allergy is the cause, the symptoms can be expected to return within the first few days of reintroducing the milk protein, but usually settle well again as the milk free diet is restarted.

When a diagnosis of allergy is confirmed, the next steps in management will be explained to you and you should receive the on-going support of a dietitian. Our medical advisers warn us that on-line tests such as IgG antibody tests are of no value in the diagnosis of this form of allergy (NICE 2011).

## Other infant conditions triggered by cow's milk

### Cow's milk-induced proctocolitis

This is more likely to be seen in breast fed infants. It usually presents in the first one or two months of life with a little fresh blood, sometimes mixed with mucus (slime), appearing in the stools. The infant may be otherwise very well although there may be mild colic symptoms also present. Understandably the presence of blood can cause concern, but it will usually clear quickly when the mother takes all milk and dairy products out of her own diet. The doctor may then advise a brief reintroduction of cow's milk protein into the infant's diet just to confirm the diagnosis, before returning to and continuing the cow's milk free diet for a period of time under the supervision of your doctor and/or dietitian. Often this condition will naturally resolve around the age of one year or early in the second year of life (Boyce JA, 2010).

### Cow's milk protein-induced enteropathy syndrome

This occurs in young infants with chronic and persisting diarrhoea usually associated with faltering growth. It can be due to different food proteins, but cow's milk protein is the commonest trigger.

The diagnosis is based on:

- The recognition of this pattern of symptoms by your doctor. These may include poor weight gain, known as Failure to Thrive (FTT) – also known as faltering growth.
- Disappearance of the symptoms when cow's milk protein is removed from the infant's diet

- Recurrence of symptoms following a planned oral food challenge with milk by a specialist allergy service.

Most children can be expected to tolerate having milk protein introduced again into their diet by two to three years of age. Until that happens, it is **vital** for your child to be under the supervision of a doctor and dietitian with experience of this serious condition (Guidelines for the diagnosis and management of food allergy in the USA 2010).

## Eosinophilic Gastrointestinal Disorder (EGID)

This immune system-related condition is uncommon, but its prevalence in the UK may be increasing.

The following symptoms may be present:

- Refusal of food, with screaming and back arching during feeds
- Vomiting
- Possible faltering growth/poor weight gain

The diagnosis usually needs to be confirmed by an endoscopy examination of the oesophagus (gullet), stomach and bowel under anaesthetic. This allows both a direct visual examination to be carried out along with biopsies.

If EGID is diagnosed, the child will usually come under the joint specialist monitoring of both the allergy and the gastroenterology teams. Dietary elimination of the culprit food is the most effective treatment for infants (Epstein J, Warner J O 2014). Often several food triggers may be active with milk being the commonest one.

## Food protein-induced enterocolitis syndrome (FPIES)

This condition is a severe allergic response to food, with cow's milk protein being the commonest cause. It is rare in breast fed infants.

There can be repetitive vomiting with resulting listlessness usually two to four hours after ingestion of the milk protein. It may then be followed with significant diarrhoea. At its most severe it can cause severe dehydration and collapse requiring intensive care. It can easily be mistaken for the onset of an acute severe infection. The attending doctor needs to be alert to the possibility that FPIES is the cause.

The diagnosis is based on the recognition of the symptoms by your doctor, with resolution of the episodes when cow's milk protein is removed from the infant's diet.

A food challenge may be necessary to confirm the diagnosis, but this decision has to be taken carefully

by a doctor experienced in severe food allergy and also carried out in a carefully supervised hospital environment.

In time, usually within the preschool years, most children will be able to tolerate milk protein again. However, the decision when to test for this in a carefully supervised hospital environment again is best taken by a specialist allergy service. (Guidelines for the diagnosis and management of food allergy in the USA 2010) (Luyt D et al 2014)

## Lactose intolerance

The sugar in cow's milk and in breast milk is called lactose. An enzyme called lactase, present in the gut, is needed to break this complicated sugar into smaller sugars that the body can then absorb and use. As young children grow up and drink less milk, the amount of this enzyme gradually and naturally falls. For some children, especially those from an Asian or African ethnic background, this may happen to a greater degree and this may mean that over time not all the lactose they consume is broken down. Very gradually gut symptoms begin to develop. These symptoms may include bloating, tummy pains, wind and very loose stools. It does not include constipation or reflux/vomiting.

Lactose intolerance does not usually occur until later in childhood. It can be triggered by an acute gastroenteritis infection or can even be triggered by cow's milk allergy in a child of any age. Your doctor should be aware and be able to advise on the management of lactose intolerance.

Lactose intolerance is treated by removing lactose from the diet. However small quantities are unlikely to cause symptoms.

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## NICE guidelines

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NICE Diagnosis and assessment of food allergy in children and young people in primary care and community settings. Clinical guideline 116. NICE 2011. Available at: [www.nice.org.uk/guidance/cg116](http://www.nice.org.uk/guidance/cg116)

### Reviewers

This Factsheet has been peer reviewed by Prof John Warner, Professor of Paediatrics Imperial College London, and Hon Professor University of Cape Town; and by Sue Clarke, nurse adviser to the Anaphylaxis Campaign, who has lived with cow's milk allergy in her family for many years.

### Disclosures

Prof Warner: PI and Scientific Advisory Board membership for trials of infant milk formulae for the prevention of allergy – Danone/Nutricia. Investigator and Scientific Advisory Board membership for trials of an environmental control system for allergic conditions – Airsonett. Bursaries for lectures at conferences for Danone/Nutricia; Airsonett; UCB; Novartis; Allergy Therapeutics. Academic theme lead for the Collaboration for Leadership in Applied Health Research and Care for NW London

Sue Clarke: Consultancy work for Bausch and Lomb, suppliers of the Emerade.

### Disclaimer

The information provided in this Factsheet is given in good faith. Every effort has been taken to ensure accuracy. All patients are different, and specific cases need specific advice. There is no substitute for good medical advice provided by a medical professional.

### About the Anaphylaxis Campaign

The Anaphylaxis Campaign is the only UK wide charity solely focused on supporting people at risk of severe allergic reactions. We provide information and support to people living with severe allergies through our free national helpline and local support groups, and campaign and fundraise to achieve our ultimate aim, to create a safer environment for all people at risk of severe allergies.

Visit our website [www.anaphylaxis.org.uk](http://www.anaphylaxis.org.uk) and follow us to keep up to date with our latest news. We're on Facebook [@anaphylaxiscoms](https://www.facebook.com/anaphylaxiscoms), [LinkedIn](https://www.linkedin.com/company/anaphylaxis-campaign), Instagram [@anaphylaxis\\_campaign](https://www.instagram.com/anaphylaxis_campaign), Twitter [@Anaphylaxiscoms](https://twitter.com/Anaphylaxiscoms) and [YouTube](https://www.youtube.com/channel/UC...).