Dairy allergies, more commonly known as cow’s milk allergy (CMA) is a complex and often misunderstood disorder. A frequent misconception among the general public is the confusion between CMA and lactose intolerance. A true food allergy occurs when there is an abnormal immune response to the milk protein. 

When a person is unable to digest milk sugar (lactose) they are said to have lactose maldigestion. The undigested lactose passes through the small intestine to the colon, where it ferment to cause flatulence, cramps and bloating.

Lactose intolerance

Lactose (milk sugar) is the carbohydrate naturally found only in mammalian milk and is hydrolysed by lactase in the small intestine. When digested by the body, lactose is split into two smaller sugars, glucose and galactose. When a person has an insufficient lactase enzyme to break down all of the lactose, they are said to have lactose maldigestion.

Food intolerance is different from a food allergy and does not involve the immune system. It occurs when a person has an enzyme deficiency or a reaction to either natural or artificial substances in foods. Lactase (the enzyme responsible for digesting lactose) activity declines exponentially at weaning to zero by five years of age; and 97% at 17 years of age.

Infants with CMA should be re-examined regularly by their doctor and dietitian. Periodic rechallenges should be conducted to monitor tolerance (6-12-monthly). In case of IgE-mediated CMA, milk specific IgE levels should also be monitored periodically.

The treatment for cow’s milk allergy and lactose intolerance

Once an allergy has been diagnosed by a qualified health professional, the offending food or foods should be eliminated from the diet. Even trace amounts can cause severe symptoms. So if cow’s milk protein is the problem, avoid all milk and dairy products, e.g. milk, cheese, yoghurt, butter, ghee, ice cream, buttermilk, cultured milk, milk shakes and flavoured milk. Read all food labels to check for ingredients such as: milk, milk powder, milk solids, casein and whey.

The World Allergy Organization defines an adverse reaction to food as food hypersensitivity. Food hypersensitivity can be divided into two categories: i.e. immune-mediated reactions (food allergy) and non-immune mediated reactions (food intolerance).

An immune-mediated reaction or food allergy that triggers immediate symptoms is further referred to as IgE-mediated reactions; and when symptoms are delayed – referred to as non-IgE-mediated reactions.

Facts on dairy allergies

- CMA is an inflammatory response to milk proteins and is distinct from lactose intolerance.
- CMA is more prevalent in infants (2-6%) than in adults (0.1-0.5%).
- It is the most common food allergy in children, affecting 5-10% of children under the age of 2 years are truly allergic to cow’s milk, and in adults CMA is rare.
- The prevalence of lactose intolerance in the USA is estimated to be 11.03%.

The prevalence of self-diagnosed CMA in the community is substantially higher than the incidence reported in blinded and controlled challenge trials, suggesting that a proportion of the population is unnecessarily eliminating dairy products.

Breast-feeding is the best preventative strategy for preventing CMA, although it cannot eliminate the risk of allergic sensitization in infants.

Management of CMA involves avoidance of dairy for the duration of the condition, and in the light of this, the provision of appropriate nutritional advice is important to prevent nutritional deficiencies.

The dangers of unnecessarily removing cow’s milk from the diet

Cow’s milk provides a unique package of ten or more essential nutrients, including protein, carbohydrates, vitamins A, B6, B12, riboflavin and niacin as well as calcium, phosphorus, magnesium, potassium and zinc, all needed for a healthy diet.

Elminating dairy products is not a viable long-term solution for dietary calcium intake. If you are lactose intolerant you can successfully add dairy to your diet if you keep the following in mind:

- Use milk with other foods – such as milk on cereal – and not on an empty stomach.
- Build up your tolerance. Start small and gradually increase your milk consumption.
- Full-cream milk may be better tolerated than low-fat or fat-free milk.
- Yoghurt is better tolerated than milk.
- Cheese is very low in lactose and well tolerated.
- Try low-lactose milk or lactose-digesting preparations (available from chemists).
- Use a probiotic supplement on a daily basis to improve your colonic microbiotic environment.

The difference between cow’s milk allergy and lactose intolerance

<table>
<thead>
<tr>
<th>Food condition</th>
<th>Cause of condition</th>
<th>Common symptoms</th>
<th>Required action</th>
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</thead>
<tbody>
<tr>
<td>Cow’s milk allergy</td>
<td>Abnormal immune system reaction</td>
<td>Urticaria (hives), vomiting, abdominal pain, cramps, bloating, flatulence</td>
<td>Must avoid all dairy products</td>
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<tr>
<td>Lactose intolerance</td>
<td>Not a reaction of the immune system, but a deficiency of the enzyme lactase resulting in the inability to digest milk sugar (lactose)</td>
<td>Loose, slimy, frothy and acidic stools; abdominal pain and cramps; bloating; flatulence</td>
<td>Total avoidance is not necessary but some dietary adjustments will be required</td>
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</tbody>
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REFERENCES


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