



Key Points for Primary Care from BSACI Milk Allergy Guidelines.

1. Cow's milk allergy is a reproducible immunological reaction to cow's milk protein that can be classified into IgE mediated immediate-onset and non-IgE mediated delayed-onset.
2. Cow's milk allergy is common, with a prevalence of between 2% - 4.9% during the first year of life. Only a small number of infants (0.5%) react to the cow's milk protein found in maternal breastmilk.
- 3., Children may display varying levels of tolerance, where some will react to traces of cow's milk protein whilst others may be able to tolerate baked milk (such as in biscuits) and small amounts of milk in other foods.
4. IgE mediated disease is characterised by symptoms soon after ingestion of cow's milk, such as urticaria, angioedema, abdominal pain, vomiting, wheeze, cough, sneezing, red/itchy eyes, drowsiness, pallor or collapse. The severity can range from skin symptoms only including moderate to severe eczema to life-threatening anaphylaxis. Diagnosis is predominantly based on clinical history confirmed via evidence of sensitisation from allergy testing (skin prick tests and/ or serum specific IgE levels).
5. Where there is conflict between the history and the tests, a food challenge may be necessary to confirm the diagnosis. The tests available have a poor predictive value and should only be used if there is clinical suspicion.
6. Non-IgE mediated disease is characterised by a combination of delayed gastrointestinal or skin symptoms, such as diarrhoea, constipation involving straining to pass a soft stool, vomiting, blood or mucus in the stool, abdominal pain, dysphagia, feed refusal, poor sleeping, irritability (colic), persistent atopic eczema or other non-specific rashes. Diagnosis is made on the history, with resolution of symptoms on an exclusion diet, followed by return of symptoms on reintroduction of cow's milk.
7. Management involves avoidance of cow's milk protein and substitution with hypo-allergenic infant formula i.e. an extensively hydrolysed formula or amino acid formula. Amino acid formulas should only be used when there are severe symptoms including anaphylaxis,

faltering growth, complex multisystem involvement, multiple food allergies and eosinophilic oesophagitis. For symptomatic breast fed babies, mothers need to adopt a strict cow's milk free diet while ensuring their diet contains sufficient calcium and iodine, alongside 10mcg (400IU) vitamin D as recommended for all breastfeeding women in the UK.

8. Whilst only 10-14% of children with IgE mediated cow's milk allergy will also be allergic to soya, up to 60% of those with gastrointestinal symptoms can develop non-IgE mediated soya allergy. Soya formula can therefore be considered for infants over 6 months of age with IgE mediated allergy if hypoallergenic formula are not tolerated. Soya formula should not be used under the age of 6 months due to high concentrations of phytoestrogens. Children allergic to cow's milk protein will also be allergic to the majority of milk from other 4 legged animals e.g. goat sheep, buffalo

9. Verbal and written advice should be given on suitable alternatives to cow's milk and dairy products and all children should see a dietitian to avoid unnecessary prolonged avoidance, nutritional deficiencies and to promote appropriate feeding behaviours. Cow's milk protein is a difficult allergen to avoid, being widely used and sometimes found as an unexpected or "hidden" ingredient.

10. Most children outgrow this allergy by adulthood, although it is more likely to persist if IgE mediated, greater sensitivity, multiple food allergies and/or concomitant asthma or allergic rhinitis. Children should be reassessed every 6-12 months from the age of 10-12 months to assess for suitability of reintroduction.

11. Reintroduction should be gradual using a "milk ladder" approach and is usually carried out at home for non-IgE mediated allergy. Reintroduction should be trialled in hospital if reactions have previously affected breathing or circulation, if there is concurrent asthma requiring a preventative inhaler, multiple food allergies or reactions described to trace amounts.

12. Cow's milk allergy in adults is frequently severe. It is rare, with an estimated prevalence of 0.4% to 0.6%. It usually arises in adulthood but can persist from childhood.