GUIDANCE ON THE DIAGNOSIS AND MANAGEMENT OF COW'S MILK ALLERGY IN INFANTS AND CHILDREN

This guideline is an update to the May 2017 guidelines following stakeholder review of existing guideline and implementation. It was agreed that currently there needs to be separate supplementary guidance for City CCG and various County CCG's due to differences in commissioning of community dietetic services. Please therefore refer to these supplements for information regarding referral, diagnosis and management of suspected IgE mediated cow's milk allergy and to access the relevant pathways.

The guideline is designed as a toolbox[1] to primarily support GP's and Childrens Health Teams in the differential diagnosis and initial management of cow's milk allergy, although it is relevant to all health professionals involved with patients suffering with potential food allergy.

This guideline provides information about:

- symptoms of food hypersensitivity
- how to confirm a diagnosis of cow's milk allergy
- whether use of specialised infant formula is required
- when, how and what to prescribe
- if and when the child needs to be referred to specialist community dietetic or secondary care

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Contents

Supplementary guidance:

Referral pathways and diagnosis of IgE mediated CMA – Specific to CCG's groupings across Nottinghamshire
Food allergy care pathway – Supplementary guidance for children served by GPs within Nottingham City CCG. Included is the City CCG food allergy referral pathway algorithm.
Quick reference guides (single page algorithms) for **i) Exclusively breastfed infants** **ii) Partially breast fed/ formula fed infants** Specific to each CCG groupings across Nottinghamshire

Cow's Milk Allergy (CMA)

Recognising symptoms of food allergy

Allergy to cow's milk protein should be suspected in infants who present with one symptom (IgE mediated reaction) or a number of symptoms (non-IgE mediated reactions) listed in the following table **(Table 1)**, in association with the introduction of cow's milk into their diet.

NICE guidelines[2] and subsequent NICE Food Allergy Quality Standards[3] recommend that if food allergy from any cause is suspected, then an **allergy focused clinical history should be taken**, including family history of atopy [risk of atopy/ food allergy increases if a parent or sibling has atopic disease (20–40% and 25–35%, respectively), and is higher still if both parents are atopic (40–60%)[4]] **(see Appendix 1)**. A physical examination should also be conducted by a GP or other competent medical personnel. An allergy focused clinical history template is available on SystmOne, currently accessed by childrens health team staff and community dietitians.

Diagnosis

Diagnosis of non-IgE mediated cow's milk allergy

Diagnosis of delayed, non-IgE mediated CMA can be made if symptoms resolve after 2-6 weeks on a cow's milk elimination diet[2-3]. In children suffering from moderate to severe eczema, the exclusion trial period is suggested to be between 6-8 weeks[5]. However, unless highly confident of the response to the elimination diet (parents often describe them as being a different child) or in infants who have had an extensive period of distressing symptoms prior to final resolution, a firm diagnosis can only be made if re-occurrence of symptoms has been demonstrated following a cow's milk re-challenge[2-3] **(see Appendix 2)**. This re-challenge should not be done in children who are thought to have immediate, IgE mediated allergy. In those with more severe, distressing symptoms, resolution of symptoms can be accepted as diagnostic, with first re-challenge occurring at 1 year of age.

Table 1 Symptoms of food allergy[2]

IgE- mediated (within 2 hours of ingestion)	**Non-IgE-mediated (2-48 hours post ingestion)**
The Skin	
Pruritus Erythema Acute urticaria (localised/ generalised) Acute angioedema (commonly lips, face & eyes) Acute flaring of atopic eczema	Pruritus Erythema Unexplained skin rashes Moderate to severe atopic eczema
The Gastrointestinal system (GI)	
Angioedema of lips, tongue & palate Oral pruritus Nausea Vomiting Colicky abdominal pain Diarrhoea	Gastro-oesophageal reflux disease Vomiting Loose or frequent stools Blood and/or mucus in stools Abdominal distension and pain Infantile colic Food refusal or aversion Constipation Perianal redness or nappy rash Pallor and tiredness Faltering growth plus one or more gastrointestinal symptoms (with/ without significant atopic eczema)
The Respiratory System (usually in combination with one or more of the above symptoms and signs)	
Upper respiratory tract symptoms – nasal itching, sneezing, rhinorrhoea or congestion (with/ without conjunctivitis)	Upper and lower 'Catarrhal' airway symptoms
Lower respiratory tract symptoms (cough, chest tightness, wheezing or shortness of breath)	
Other	
Signs or symptoms of anaphylaxis or other systemic allergic reactions	

Bottle-fed infants

If the mother is NOT breastfeeding exclusively, a hypoallergenic formula should be prescribed. There are two types of hypoallergenic formula and the initial formula of choice will depend upon the severity of presenting symptoms as outlined in Table 2.

Table 2 Hypoallergenic formulas to treat CMA in Nottinghamshire

Severity of CMA	Presenting symptoms	Type of formula	Recommended product
Mild/ Moderate	For the majority of gastrointestinal and atopic symptoms of cow's milk allergy	**Extensively Hydrolysed Infant Formula (EHF):** Casein based, lactose free + probiotic (1st line) or Whey based with lactose (2nd line)	1st Line: **Nutramigen 1 with LGG or Nutramigen 2 with LGG** (> 6 months age) **(MJ Nutrition)** *2nd Line: **SMA Althera** or **Aptamil Pepti 1 or Aptamil Pepti 2** (>6mths age)
Severe	Faltering growth, multi-system (gut, skin, respiratory)/ multiple food allergies, anaphylaxis, eosinophilic oesophagitis. Lack of symptom resolution after **4 weeks** on chosen EHF[6]	**Amino Acid Infant Formula (AAF)** 1st line – Lowest acquisition cost i.e. cheapest clinically effective option or junior milk if > 1yr 2nd line – specialist recommendation (Amber 2)	1st line: **SMA Alfamino#** **or Neocate Junior (Nutricia)** [> 12 months age) (Flavours; unflavoured, vanilla)] 2nd Line: **Neocate Syneo** or **Neocate LCP** or **Nutramigen Puramino**

*Second line EHF option is for infants over 6 months of age who for palatability reasons may not accept the first line EHF. **Not all EHF are equivalent and are therefore not interchangeable. If using Aptamil Pepti and there has been little resolution of symptoms after 3-4 weeks, try an alternative EHF. AAF should NOT be prescribed for infants who refuse to drink an EHF (see Appendix 3).**

#If infant still has symptoms after 4 weeks on **SMA Alfamino**, they should be discussed with the community dietitian and referred to a paediatrician. Alternative amino acid formulas are reserved for specialist recommendation only.

It is suggested in the first instance that approximately 1 weeks supply is prescribed i.e. 2 x 400-450g tins, to ensure the product is tolerated.

Monthly prescriptions of hypoallergenic formula are expected to comprise of approximately ***10-12 x 400-450g tins.*** This should reduce as solid intake increases (see key prescribing points).

Introduction of Hypoallergenic formula (HAF)

Due to the unpalatable taste of HAF, it is recommended in non-IgE mediated, delayed allergic reactions to grade the children onto it. Refusal of HAF is likely if it isn't introduced gradually. The younger the child, the more likely they are to accept it. Older children (over 6 months) are more likely to accept the more palatable lactose containing EHF. ***Provide patient handout for grading onto HAF (Appendix 3) if the child is over 8 weeks of age.***

Once the 4 week exclusion trial is completed, the child's symptoms should be reviewed. If they continue to suffer from symptoms after 4 weeks on an extensively hydrolysed formula, they should try an amino acid formula (AAF) (Table 2). If they still have symptoms on an AAF, they should be referred to a paediatrician. Alternative AAF can be discussed with the community dietitian while awaiting assessment, if cow's milk allergy is still suspected. Otherwise they should return to normal formula.

For children taking solids

If the child is already taking solids, they will need to adopt a strict cow's milk free diet. ***Provide patient handout of cow's milk free dietary information (Appendix 4) and signpost to/ provide the more detailed Allergy UK cow's milk free factsheet***.

Re-challenge to confirm diagnosis in bottle fed babies

If symptoms have improved after a 4 week exclusion trial using EHF (or sooner if rapid symptom resolution observed), to confirm the diagnosis in non-IgE mediated allergy, children should be re-challenged with normal formula. ***Provide Appendix 2; Home Reintroduction to Confirm or Exclude the Diagnosis of Non-IgE Cow's Milk Allergy after a 4 week cow's milk exclusion trial,*** to ensure this is done safely.

Refer to community paediatric dietitian (see page 10)

If the child's symptoms return on re-challenge, they should resume the extensively hydrolysed formula and/ or strict milk free diet as soon as this occurs, and **a referral made to a community paediatric dietitian** for further practical advice on following the cow's milk free diet[3]. It may be appropriate for children who have had a complicated path to diagnosis and ultimately require an amino acid formula, to delay the re-challenge process until 1 year of age, assuming symptoms have satisfactorily resolved, to avoid potential further complications.

Breast fed babies

In a small number of **exclusively breastfed infants**, CMA can develop, as cow's milk proteins from the mother's diet can pass into breast milk. These infants tend to be some of the most allergic and are more likely to suffer from multiple food allergies. For these infants, **mothers should be encouraged to continue to breast feed while following a strict cow's milk protein free diet for a 4 week trial period**. For infants with severe eczema, a cow's milk and egg free diet is recommended. It is usually advised against using key sources of soya (soya milk, yogurt, cheese) as an alternative during the trial period, as there is a high risk of concomitant soya allergy[7].

In infants who are **mixed fed**, mother should continue to breast feed but should **not exclude cow's milk** or other allergens from her diet.

In line with national advice[8], all breastfeeding mothers should be in receipt of 10mcg vitamin D daily. Given that cow's milk is the main source of calcium and breast feeding mothers have high requirements for calcium, breast feeding mothers will require calcium supplements to meet the recommended intake. Attention should also be paid to **iodine** intake; deficiency of which can cause irreversible effects to growth and development during infancy[9]. Cow's milk and products are the main source of iodine. Other good sources include fish and eggs. ***Provide patient handout of cow's milk free dietary information (Appendix 4) and signpost to/ provide the more detailed Allergy UK cow's milk free factsheet.***

Fact sheets on vitamin D, calcium and iodine are available from the BDA: https://www.bda.uk.com/foodfacts/home

Micronutrient supplements for breastfeeding mothers

Breast feeding mothers require **1250mg calcium, 10mcg vitamin D and 250mcg iodine daily**.

If breast feeding mothers are entitled to Healthy Start vitamins (providing 10mcg vitamin D), they only require a calcium supplement; **Calcichew x 2 daily**, providing 1000mg calcium

Otherwise they will need a combined calcium and vitamin D supplement; **Adcal-D3 caplets (750mg Ca/ 200 IU vit D) x 2 daily** will provide 1500mg calcium and 10mcg vitamin D

Suitable affordable preparations providing the above are available to purchase from supermarkets and chemists. Iodine specific supplements are not readily available and advice should be given on iodine rich foods (BDA fact sheet).

Breastfeeding specific micronutrient supplements usually contain 140-150mcg iodine (WHO recommended supplementary amount) in addition to 700mg calcium and 10mcg vitamin D and should be encouraged where possible.

If mothers are unable to follow a milk-free diet despite support from their GP, health visitor and dietitian, then careful consideration should be given as to whether breast-feeding should continue and, if not, the infant will require hypoallergenic formula. **If there is no faltering growth or multisystem/ multiple food allergy involvement, an extensively hydrolysed formula (EHF) may be tolerated[6]. If this is not the case, or there has been no symptom improvement after 2 weeks, an amino acid formula (AAF) should be prescribed (see table 2).**

NB/ the trial exclusion period on an EHF is shorter for breast fed babies than bottle fed babies, as there is an increased likelihood of them needing an AAF.

Early discussions around the need for an emergency back-up supply of hypoallergenic formula should be considered in case of sudden breastfeeding failure due to illness etc., as refusal of bottles and hypoallergenic formula are more likely after around 3 months of age.

If they still have symptoms after 4 weeks on the AAF **SMA Alfamino**, they should be discussed with the community paediatric dietitian and referred to a paediatrician. Alternative amino acid formulas are reserved for specialist recommendation only.

Re-challenge to confirm diagnosis in breast fed babies and referral

If symptoms have improved on the 4 week exclusion trial, to confirm diagnosis in non-IgE mediated allergy, breast fed children should be re-challenged by mother returning to a normal cow's milk containing diet for a week **(see Appendix 2)**. If symptoms recur, the cow's milk free diet should be resumed and **referral made to a community paediatric dietitian (see page 10)**. If symptoms do not improve, the child should be referred to a paediatrician.

Key prescribing points:

- Initial prescription of 1 weeks supply i.e. 2 x 400g/ 450g tins, to ensure the product is tolerated.
- **A 'review' date should be stated at the time of the initial prescription.**
- **Parents should be made aware from the beginning of how long the exclusion diet is likely to be needed.**
- Monthly prescriptions of hypoallergenic formula are expected to comprise of:
  <6mths: 12-13 x 400/450g or 6 x 900g tins
  6-12mths: 7-13 x 400/450g or 3-6 x 900g tins
  >12mths 6-7 x 400/450g or 3 x 900g tins
- Once established on a HAF, prescriptions for the formula must be reviewed every 8-12 weeks for CMA to ensure continued improvement of symptoms.
- Soya based formula should not be prescribed unless advised by a specialist.
- Repeat prescription of hypoallergenic formula should cease once a child is able to tolerate cow's milk products in the diet and a formal cow's milk re-challenge process should be completed to ensure they can transition onto normal cow's milk formula.
- Prescription of specialist formula beyond 1 year of age will be determined by the dietitian, based on their tolerance to soya milk and adequacy of dietary intake. The aim will be to wean off hypoallergenic formula after 1 year of age wherever possible. Dietitians will continue their follow up whilst they still require a prescribed formula to ensure this is still essential for their health and well-being.

Breastfeeding is considered the best form of nutrition for a good start in life for every child

Referral to the community paediatric dietetic service

Referral to a paediatric dietitian with appropriate competencies is essential once a diagnosis of cow's milk allergy has been confirmed to:

- ensure nutritional adequacy and maximise growth potential
- optimise quality of life and provide practical advice and support, particularly during complementary feeding and integration into family meals
- provide assessment, support and pre-emptive advice around food avoidance issues
- review appropriateness of prescribed products and use of alternative milk substitutes
- advise on re-challenging
- ensure against unnecessary long-term exclusion of foods
- assess and identify emerging co-morbidities in referred patients, including atopic conditions and other food allergies

Infants unable to tolerate soya milk from 1 year of age, but who are eating well and not avoiding other food allergens may obtain sufficient nutrition alongside a cow's milk and soya free alternative supermarket milk e.g. oat, coconut, hemp, nut; thereby acting as a calcium supplement only. The dietitian will advise on this. Oat milk tends to provide more energy, protein and iodine than most other non-soya based alternatives. Generally however, non-soya based milks are not considered as suitable main milk drink alternatives until 2 years of age.

Lactose intolerance (rare in children under 3 years of age)

Cow's milk allergy should not be confused with lactose intolerance, which is a non-immunological reaction caused by an enzyme deficiency e.g. transient lactase deficiency

Lactose intolerance is rare in children under 3 years of age, unless onset of symptoms coincides with an episode of gastro-enteritis. Typical symptoms of lactose intolerance include loose, watery stools, abdominal bloating and pain, increased flatus and nappy rash. If other symptoms are present such as rashes, eczema, vomiting, constipation or the child is not growing well, they are more likely to have cow's milk allergy, even if some of the symptoms resolve following lactose exclusion. **Lactose free formula is no longer prescribed. Refer to the APC guidance on lactose intolerance.**

Soya-based Formula

In 2004, the Chief Medical Officer issued a statement advising against the use of soya-based formula in infants with cow's milk protein allergy or lactose intolerance due to its phyto-oestrogen content, which could pose a risk to the long-term reproductive health of infants[10]. There is also an increased risk of sensitisation to soya protein. Whilst only a small number of children with IgE mediated CMA become sensitised to soya (10-14%), 30-64% of children with non-IgE mediated CMA conditions such as enteropathy or enterocolitis can develop an allergy to soya[7].

Soya based formula should therefore not be prescribed unless advised by a competent health professional. Parents wishing to feed their infant soya-based formula should be advised of the risks and instructed to buy the formula over the counter rather than have it prescribed. Use of soya formula should be limited to exceptional circumstances to ensure adequate nutrition, for example, infants of vegan parents who are not breastfeeding. Where health professionals consider it to be the most suitable alternative for the management of cow's milk allergy or galactosaemia in infants over 6 months of age, it should be prescribed as an alternative to hypoallergenic formula.

Key Prescribing Points

- Soya formula should not be used in infants with food allergy during the first 6 months of life[11].
- Soya formula should not be used in infants suffering from moderate to severe gut symptoms, which could be associated with cow's milk induced enteropathy or enterocolitis.[7]
- A 'review' or 'stop' date should be stated at the time of the initial prescription
- Parents should be made aware from the beginning of how long the exclusion diet is likely to be needed

Diagnosis of IgE mediated cow's milk allergy

Children with suspected immediate IgE mediated reactions should be advised to adopt a strict cow's milk exclusion diet, which should be accompanied by resolution of symptoms **[*Provide patient handout of cow's milk free dietary information (Appendix 4) and signpost to/ provide the more detailed Allergy UK cow's milk free factsheet*]**. Unlike non-IgE mediated allergy, these children should not be re-challenged with cow's milk to confirm the diagnosis of suspected IgE mediated allergy in the community.

Due to differing commissioning arrangements, the process for confirming the diagnosis of IgE mediated cow's milk allergy is not consistent across Nottinghamshire. Please refer to your CCG specific guideline for the diagnosis of IgE mediated cow's milk allergy.

Referral to specialist services

Due to differing commissioning arrangements, the referral arrangements to dietetic services and secondary care vary across the Nottinghamshire CCGs. Please refer to your CCG specific guideline for the specific referral pathway within your area.

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Appendix 1 - *Allergy focused clinical history assessment sheet*

Name: **DOB** **NHS no.**

If there is an immediate reaction to food resulting in breathing difficulties/ wheeze, lethargy or other systemic symptoms, or a reaction to trace amounts of food, refer if appropriate to A&E or refer directly to secondary care. In all other cases, use this sheet in liaison with a community paediatric dietitian.

Child's History

Any atopic disease (eczema, asthma, hay fever)? ……

Any parental concerns around food allergy or intolerance?……

Family History

Any atopic disease in parents or siblings (eczema, asthma, hay fever)? ……

……

Any history of food allergies or intolerance in parents or siblings? ……

Were there any feeding issues with the parents as babies? ……

Feeding History (from birth)

Initial feeding method, changes in feeding and reasons why e.g. stopped breastfeeding, started mixed feeding, changes in formula brand or type ……

Current feed volumes and frequency per day……

Age of weaning, types of solids introduced so far ……

Any poor feeding/ food refusal/ aversion ……

Bowels

Consistency (slimy, frothy, hard, soft, watery), colour, offensive smell ……

Frequency ……

Changes in bowel habits/ at what age/ does it coincide with anything e.g. introduction of formula or solids, or following/ during a feed ……

Presence of mucus or blood ……

Presence of nappy rash, stool testing (pH < 5.5, reducing substances present)? ……

Discomfort

Severity and type e.g. screaming, drawing up legs, abdominal distension/ pain……

……

Time of day, how long for, is the baby able to sleep appropriately ……

What settles baby e.g. position (supine/ prone), alternative environments?……

……

Sickness

When does the sickness occur?.....

If associated with feeds, how soon after feed and after how much feed, how many times a day, how much vomit and is it projectile?.....

Does anything reduce the vomiting (e.g. position - laying on front, staying upright)? ……

Any retching, coughing or gurgling in throat during feeding? ……..

Breathing

Are they chesty, is there a cough, wheeze or nasal secretions/ blockages?.....

……

Skin

Rashes e.g. redness (erythema), urticaria, swelling (angio-oedema) and timing of onset of rashes following food/drink? ……

Dry skin/ eczema. Severity of eczema – do they need steroid creams/ wet wraps and if so, how often? Does the skin bleed?.....

Weight/ growth and signs of malnutrition

Are they gaining weight and growing well? Yes ☐ No ☐

……

Are they active or unduly tired?

……

Do they look pale or frequently suffer from illnesses?

……

Treatments

What medications or other therapies have they tried so far and what has/ hasn't worked?

……

What medications are they currently on?

……

Have they been referred to anyone?.....

Name & base of Health Professional: _____ Tel no:

Signature: _____ Date:

Appendix 2 – *Home Reintroduction to Confirm or Exclude the Diagnosis of Non-IgE Cow's Milk Allergy after a 4 week cow's milk exclusion trial*

(adapted from the iMAP home reintroduction factsheet)

1. DO NOT start the reintroduction if your child is unwell:

e.g. Any respiratory or breathing problems (this includes a common cold)

Any tummy, bowel or teething symptoms

If your child has atopic dermatitis/eczema – any current flare-up of the skin

2. DO NOT start the reintroduction if your child is on any medication that may upset the bowels

3. DO NOT stop any medication that your child may be on e.g. reflux medicine, laxatives

4. DO NOT introduce any other new foods during the reintroduction

5. Keep a record of what your child eats and drinks during the reintroduction and record any possible symptoms such as vomiting, bowel changes, rashes or changes in their dermatitis/eczema

The Home Reintroduction

Formula Fed Child (those taking only formula feeds or taking formula as well as breast feeds)
Each day gradually increase the amount of cow's milk formula in the FIRST bottle of the day only (as set out in the example below). For the rest of the day, all the remaining bottles will continue to be made up with the special low allergy (hypoallergenic) formula only. If you are also breast feeding and on a milk free diet yourself, start eating products containing milk again, e.g milk, cheese and yoghurt.

If the symptoms return, **STOP** the reintroduction. Give only the prescribed formula again and inform your doctor or dietitian. Your child's symptoms should settle again within a few days and the diagnosis of cow's milk allergy is now confirmed.

If no symptoms occur after Day 7, when you have replaced the 1st bottle of the day completely with cow's milk formula, give your child cow's milk formula in all bottles. If no symptoms occur within 2 weeks of your child having more than 200ml (almost 7 floz) of cow's milk formula per day, your child does not have cow's milk allergy.

Practical Example of a Reintroduction in a Formula Fed Child

Days	Volume of boiled water (ml/ floz)	Hypoallergenic Formula (number of scoops) IN FIRST BOTTLE ONLY	Cow's Milk Infant Formula (number of scoops) IN FIRST BOTTLE ONLY
Day 1	210ml (7floz)	6	1
Day 2	210ml (7floz)	5	2
Day 3	210ml (7floz)	4	3
Day 4	210ml (7floz)	3	4
Day 5	210ml (7floz)	2	5
Day 6	210ml (7floz)	1	6
Day 7	210ml (7floz)	0	7

If no symptoms occur after Day 7, when you have replaced the first bottle of the day completely with cow's milk formula, give your child cow's milk formula in all bottles.

Fully Breast Fed Child

Simply go back to eating and drinking all cow's milk and cow's milk containing foods that you were having before the exclusion trial. You do not need to do this gradually. If the symptoms return, **STOP** the reintroduction, return to your full milk exclusion diet and inform your doctor or dietitian. Your child's symptoms should settle again within a few days and the diagnosis of cow's milk allergy is now confirmed. If no symptoms occur, you can continue to drink cow's milk and eat cow's milk containing products, e.g. cheese and yogurt. Your child does not have cow's milk allergy.

In a few children possible symptoms of cow's milk allergy may appear later, when larger amounts of cow's milk protein are taken by the child; such as when formula or when milk containing products or plain milk are introduced. Should this happen, contact your doctor, health visitor or dietitian.

Appendix 3 – *Grading procedure for hypoallergenic formula*

Days	Volume of pre-boiled water*	Number of scoops cow's milk formula	Number of scoops hypoallergenic formula
1	210ml (7floz)	6	1
2	210ml (7floz)	5	2
3	210ml (7floz)	4	3
4	210ml (7floz)	3	4
5	210ml (7floz)	2	5
6	210ml (7floz)	1	6
7	210ml (7floz)	0	7

In children over 6 months of age, you may need to introduce the hypoallergenic formula in 1-3tsp increments (5-15ml)/ bottle/ day if refused. Alternatively, you could consider adding a few drops of alcohol free vanilla essence to flavour it.

* If using a hypoallergenic formula which contains live bacteria (probiotic) i.e. Nutramigen with LGG or Neocate Syneo, you will need to make sure that the water is at room temperature before you add the powdered formula, otherwise you will kill the bacteria and not gain the benefits. Only do this once the child has fully changed onto the hypoallergenic formula.

Appendix 4 – *Providing a cow's milk free diet*

European Union (EU) food labelling laws require that labels must clearly state whether milk and egg as well as other common allergens, are ingredients in a food product.

- These laws apply to all packaged and manufactured foods and drinks sold throughout the EU.
- They also apply to foods sold loose (e.g. from a bakery, delicatessen, butcher or café) and foods packed for direct sale (e.g. sandwich bars, market stall, some catering products).
- If you travel outside the EU, be aware that labelling laws are different so check ingredients carefully.

For **packaged products** allergens must be listed in one place on the product label (i.e. in the ingredients list) and highlighted **(e.g. in bold** or **underlined).**

For foods sold **without packaging** such as in a bakery, café or pub, allergen information has to be provided either in writing or verbally. If provided verbally, the business must be able to provide further written information if requested (in the UK only). More information on food allergy labelling is available via the FSA: https://www.food.gov.uk/safety-hygiene/allergy-and-intolerance and NHS choices: http://www.nhs.uk/Conditions/food-allergy/Pages/living-with.aspx

There are many ways in which cow's milk can be labelled, so carefully check the ingredients list on food items and **avoid foods which contain:**

Cow's milk (fresh, UHT)	Butter milk, butter oil	Casein (curds), caseinates
Evaporated milk	Condensed milk	Calcium caseinate
Yogurt, fromage frais	Cheese	Sodium caseinate
Margarine	Butter, Ghee	Hydrolysed casein
Ice cream	Cream/ artificial cream	Hydrolysed whey protein
Milk powder	Skimmed milk powder	Whey, whey solids
Milk protein	Milk solids	Whey protein
Modified milk	Lactoglobulin	Lactoalbumin

Lactose - in most cases only needs to be avoided if your child has lactose intolerance or is thought to have secondary lactose intolerance as part of a pattern of GI-related non-IgE mediated symptoms

By law you must be able to clearly identify that a product contains milk/ a milk derivative. For example, if casein is listed, it should tell you in brackets afterwards that this is 'from milk'. Allergens will be highlighted in the ingredients list in **bold**, *italics*, underlined or highlighted. Only if the product does not have an ingredients list will a statement be allowed.

Example of food label containing cow's milk

Olive spread (margarine):

Ingredients: Vegetable oils [including olive oil (22%)], water, **whey powder (milk**), salt (1.3%), stabiliser (sodium alginate), emulsifier (mono and diglycerides of fatty acids), lactic acid, natural flavouring, vitamins A and D, colour (carotenes)

Allergy Advice: for allergens, see ingredients in bold.

This margarine is therefore not suitable for a cows' milk free diet.

Use of soya alternatives: During the 4 week exclusion trial we recommend that you don't use soya milk, yogurts/ desserts, cream and cheese alternatives as there is a chance that your child may react to soya as well, thereby confusing the diagnosis. This also applies to breastfeeding mothers undertaking a cow's milk exclusion trial. We usually recommend trying soya products around 8-10 months of age, once a wide range of other foods have been introduced first.

'May contain…'/'Made in a factory…' labelling: Some labels say 'may contain cow's milk' or 'not suitable for cow's milk allergy' as the manufacturer may not be able to ensure that the product does not accidentally contain small amounts. These should generally be ok but if unsure, avoid.

You can obtain more detailed information on a cow's milk free diet from Allergy UK: https://www.allergyuk.org/information-and-advice/conditions-and-symptoms/469-cows-milk-allergy. Download factsheet: **'Cow's milk free diet information for babies and children'**

Try downloading the Food maestro or Spoon Guru Apps – free from product finders and scanner: http://www.foodmaestro.me/ or https://www.spoon.guru/the-app/

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http://www.bsaci.org/pdf/Infant-feeding-and-allergy-prevention-PARENTS-FINAL-booklet.pdf