

Cow's Milk Protein Allergy

Breastfeeding is the optimal way to feed a baby with CMPA, with, if required, individualised maternal elimination of all cow's milk protein foods (+ Calcium and vitamin D supplementation).

For more detailed directions to diagnose and manage CMA, use the 'Managing Allergy in Primary care' (MAP) guidelines (An interactive website developed by a team of specialists in the field of paediatric milk allergy but published by Nutricia).

- CMPA commonly appear when a formula is introduced in a usually breastfed baby. Therefore returning to exclusive breastfeeding should be discussed and encouraged at the earliest opportunity.
- Only about 10% of babies with CMPA will require an AAF (Murano et al., 2014). The remainder should tolerate an EHF.
- 10-14% of infant with CMPA will also react to soya proteins (and up to 50% of those with non-IgE mediated CMPA). But because of better palatability soya formula is worth considering in babies >6 months.

Hypoallergenic Infant Formulae (Prices correct as of MIMS January 2017)

Extensively Hydrolysed Formulae (EHF) Indication: Mild to moderate symptoms/reactions (IgE or non IgE mediated allergies)								
1 st line	Product	Calcium RNI (525mg/d) met in:	Lactose	Tin size	Cost per tin	Cost per 100Kcal	Average requirement / 28d**	
							0-6months	6-12months
1 st line	Similac Alimentum [®]	740mls	no	400g	£9.10	£0.43	7-12 tins (800g: 6 tins)	7-12 tins (800g: 6 tins)
	SMA Althéra [®]	800mls	yes	450g	£10.68	£0.47		
	Milupa Aptamil Pepti 1 [®]	1120mls	yes	400g 800g	£9.87 £19.73	£0.50 £0.50		
	Nutramigen LGG 1 [®]	680mls	no	400g	£10.99	£0.55	7-12 tins (800g: 6 tins)	7-12 tins (800g: 6 tins)
	Milupa Aptamil Pepti 2 [®]	830mls	yes	400g 800g	£9.41 £18.82	£0.50 £0.50		
	Nutramigen LGG 2 [®]	600mls	no	400g	£10.99	£0.57		
	Amino Acid formulae (AAF) Indication: Severe symptoms / reactions to breastmilk (IgE or non IgE mediated allergies) and if EHF tried initially but still experiencing symptoms							
2 nd Line	Alfamino [®]	920mls	no	400g	£23.00	£1.14	7-12 tins	7-12 tins
	Nutramigen Puramino [®] (was Nutramigen AA)	820mls	no	400g	£27.09	£1.35		
	Neocate LCP [®]	800mls	no	400g	£28.70	£1.51		
<p>Neocate Spoon[®] is a weaning product usually for children with multiple allergies and should only be prescribed under the supervision of a paediatric dietitian or Paediatrician</p> <p>Neocate Advance[®] and Neocate Active[®] (aka Neocate Junior) are high calorie formulas usually for children with multiple allergies and/or tube fed. They will not automatically be required over one year old.</p>								
Soy formula Indication: CMPA in infants over 6 months of age, not reacting to soya								
OTC	Wysoy [®]	780mls	no	860g	£10.31	£0.23	Not for ≤6months	Not for prescribing

** Based on meeting Calcium requirement. However, there is a **considerable variation** of intake between individuals and wastage can be significant

Top Tips

- **EHF and AA have an unpleasant taste and smell**, which is better tolerated by younger babies. Unless there is anaphylaxis, advise to introduce the new formula gradually by mixing with the usual formula in increasing quantities until the transition is complete. Serving in a closed cup or bottle or with a straw (depending on age) may improve tolerance.
- **Warn parents** that it is quite common for babies to develop green stools on these formulae.
- **Prescribe only 2 tins initially** until compliance/tolerance is established. Only then give a monthly repeat prescription.

Review and discontinuation of treatment (and challenge with cow's milk)

- 60-75% of children outgrow CMPA by 2 years of age, rising to 85-90% of children at 3 years of age (EuroPrevall study, 2012).
- **Review prescriptions regularly** to check that the formula is appropriate for the child's age.
- **Quantities of formula** required will change with age – see guide to quantities required. Refer to the most recent correspondence from the paediatric dietitian, or contact your local paediatric dietetic department for clarification.
- **Trial of reintroduction of cow's milk** – should be supervised by a paediatric dietitian or Paediatrician if symptoms are severe.
- **Prescriptions can be stopped** when the child has outgrown the allergy, or on advice of the dietitian/paediatrician.
- **Review the need for the prescription if:**
 - The patient is over 2 years of age
 - The formula been prescribed for more than 1 year
 - The patient is prescribed more than the suggested formula quantities according to their age/weight
 - The patient is able to drink cow's milk or eats yoghurts/cheese
- **Children with multiple and/or severe allergies or faltering growth may require prescriptions beyond 2 years.** This should always be on the advice of the paediatric dietitian.

Useful resources for parents and health professionals

- **Breastfeeding**
For breast feeding and bottle feeding advice, visit the UNICEF baby friendly pages:
www.unicef.org.uk/BabyFriendly/
[NHS health for life](#)
[First Step Nutrition](#)
- **Local Breastfeeding support services**
www.southernhealth.nhs.uk/services/childrens-services/breastfeeding-service/
- **Cow's milk protein allergy**
Allergy UK (www.allergyuk.org) or CMPA Support (www.cmpasupport.org.uk)
- **For Health professionals**
Luyt et al. British Society for Allergy and Clinical Immunology (BSCACI) guideline for the diagnosis and management of cow's milk allergy, July 2014 www.bsaci.org
NICE Clinical Guideline 116 Food Allergy in Children and Young People. 2011 www.nice.org.uk