

## Guide for Milk Substitutes in Cow's Milk Allergy

Breastfeeding is recommended for the multiple benefits it brings to both the mother and child. If breastfeeding is not possible, this document can assist health professionals in recommending substitute milks when an infant has cow's milk allergy. This document also provides guidance about safe, nutritionally equivalent alternatives if a particular specialised formula is not available due to supply issues.

Exclusion of cow's milk from a breastfeeding mother's diet is not necessarily required in cow's milk allergy, and should be discussed with a specialist, and supervised by a dietitian.

This information has been prepared and reviewed by the ASCIA dietitians and paediatric committees.

Commercial names and suppliers of specialised infant formula in Australia and New Zealand, and the method for their supply is provided for ease of reference.

For Pharmaceutical Benefits Scheme (PBS) and Pharmac Special Authority (PSA) item numbers for formula products listed in this document go to <http://www.pbs.gov.au> or <https://www.pharmac.govt.nz/>

**Table 1: Abbreviations used in this document**

AAF - Amino acid formula	FPIAP - Food Protein Induced Allergic Proctocolitis
CMA – Cow's milk allergy	FPIES - Food Protein Induced Enterocolitis Syndrome
eHF – Extensively hydrolysed formula	OTC - Available over the counter
EoE – Eosinophilic oesophagitis	PBS – Pharmaceutical Benefits Scheme (AU)
FPE - Food Protein Enteropathy	PSA - Pharmac Special Authority (NZ)

**Table 2: Commercially available specialised infant formula suitable for cow's milk allergy (CMA)**

Suitable formula (see table 3 for indications)	Brand names and suppliers	Availability
Soy based infant formula	<ul style="list-style-type: none"> <li>Karicare® Soy (Nutricia®)</li> <li>S-26 Gold® Soy (Aspen)</li> </ul>	OTC
Extensively hydrolysed formula (eHF)	<ul style="list-style-type: none"> <li>Aptamil® Allerpro SYNEO™ 1, 2 and 3 (Nutricia®) - contains lactose</li> </ul>	OTC
Extensively hydrolysed formula (eHF)	<ul style="list-style-type: none"> <li>Alfaré® (Nestlé®)</li> <li>Aptamil® Gold+ Pepti-Junior® (Nutricia®)</li> </ul>	PBS and PSA listed (prescription required)
Rice protein based formula	<ul style="list-style-type: none"> <li>Novalac Allergy (Bayer)</li> </ul>	OTC
Amino acid based formula (AAF) for infants <12 months of age	<ul style="list-style-type: none"> <li>Neocate® Gold, LCP and SYNEO™ (Nutricia®)</li> <li>Elecare® (Abbott)</li> <li>Elecare® LCP (Abbott)</li> <li>Alfamino® (Nestlé®)</li> </ul>	PBS and PSA listed (prescription required)
Amino acid based formula (AAF) for children >12 months of age	<ul style="list-style-type: none"> <li>Neocate® Junior (Nutricia®)</li> <li>Neocate® Junior Vanilla (Nutricia®)</li> <li>Elecare® Vanilla (Abbott)</li> <li>Alfamino® Junior (Nestlé®)</li> </ul>	PBS and PSA listed (prescription required)

**Infant formula NOT recommended for cow's milk allergy (CMA)**

The following types of formula are NOT recommended for infants with cow's milk allergy:

- Standard infant formula including anti-regurgitation, lactose free, organic, newborn, and follow on.
- Goat milk based infant formula.
- Other mammal milks and formula.
- A2 formula.

**Table 3: Specialised formula and indications in cow's milk allergy (CMA)**

Type of Allergy	First choice	Second choice (if first not tolerated)	Third choice (if second not tolerated)
<b>Immediate (IgE mediated) CMA  (not anaphylaxis)</b>	<ul style="list-style-type: none"> <li>• eHF (&lt;6 months) or</li> <li>• Rice protein based formula*</li> </ul>	AAF	
	<ul style="list-style-type: none"> <li>• Soy formula** (&gt;6 months) or</li> <li>• Rice protein based formula*</li> </ul>	eHF	AAF
<b>Anaphylaxis</b>	<ul style="list-style-type: none"> <li>• AAF or</li> <li>• Soy formula** (&gt;6 months) or</li> <li>• Rice protein based formula*</li> </ul>		
<b>FPIES</b>	<ul style="list-style-type: none"> <li>• eHF (&lt;6 months) or</li> <li>• Rice protein based formula*</li> </ul>	AAF	
	<ul style="list-style-type: none"> <li>• Soy formula (&gt;6 months and already soy-tolerant/after medically supervised soy introduction), or</li> <li>• Rice protein based formula*</li> </ul>	eHF	AAF
<b>Non IgE mediated CMA  (FPE, FPIAP)</b>	<ul style="list-style-type: none"> <li>• eHF (&lt;6 months) or</li> <li>• Rice protein based formula*</li> </ul>	AAF	
	<ul style="list-style-type: none"> <li>• Soy formula** (&gt;6 months and growing well), or</li> <li>• Rice protein based formula*</li> </ul>	eHF	AAF
<b>EoE</b>	<ul style="list-style-type: none"> <li>• AAF</li> </ul>		

**Atopic dermatitis (eczema)** alone is not an indication for specialised infant formula.

\* Unless allergic to rice.

\*\* Unless allergic to soy.

Soy is offered as an option for IgE-mediated CMA and anaphylaxis based on expert opinion, and review of the literature which presents very limited evidence of IgE mediated clinical reactions to soy in children with IgE-mediated cow's milk allergy.

(Adapted from Kemp et al.,2008)

**Guidance regarding specialised formula substitutes for cow's milk allergy (CMA)**

If an infant's usual formula is unavailable, use table 3 to select suitable substitutes. The most straightforward approach is to select a product from the same group that the child is already on (e.g. substitute one eHF for another eHF).

**Recommendations for a substitute formula should involve a review of factors that led to the initial choice, and any change in clinical history. For example:**

- A thriving child with non-anaphylactic IgE-mediated reactions to cow's milk formula was established on eHF due to age being less than six months, but is now older than six months, therefore soy formula should be considered.

**When AAF for children older than 12 months is required, but is unavailable:**

- A paediatric allergy dietitian should be consulted to assist with modifying the recipe for a substitute AAF.
- For all formula changes, recipe instructions should be reviewed with the family, as scoop to water ratios can vary substantially.

For children older than 12 months, calcium fortified soy milk is an appropriate replacement for soy formula, if they are growing well and eating a wide range of family foods.

**For children with cow's milk and soy allergies:**

- Most plant based milk replacement products that are not calcium fortified are too low in protein, fat, and calcium. Therefore, they are not nutritionally adequate for children under two years of age, unless growth and nutrition have been assessed carefully.
- Children under four years of age only need 400-500 mL of calcium fortified plant based milk replacements a day to meet their calcium requirements. Larger quantities can reduce appetite, nutritional intake, and growth.

**Referral of infants and children with CMA to a paediatric allergy dietitian is recommended to assess nutritional needs.**

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