

# SPECIAL INFANT FEEDS AND FORMULAS

**Breastfeeding is best for babies and exclusive breastfeeding for around the first six months of life is recommended by the UK Government. However, breastfeeding is not always possible as it can be difficult for some mums. Also, some babies can experience intolerance to cow's milk protein or lactose. Therefore, a range of special formulas have been created so that babies with allergies or intolerances are nutritionally complete for growth and development.<sup>1</sup>**

Formula milk is made from cow's milk but is developed in a way that is suitable for babies.<sup>1</sup> It comes in two different forms:

- 1 a dry powder made up with water, or
- 2 a ready-made feed

When prepared safely, formula feeds can provide nutrients essential for growth and development in the early stages of life.<sup>1</sup> However, formulas cannot offer the same health benefits as breastfeeding, which offers additional benefits such as protection and immunity.<sup>4</sup> Both breast milk and formula milk can be given alongside each other to boost nutritional intake.

Babies can experience intolerance to cow's milk or lactose and, therefore, specialised formula feeds are designed to assist these babies in their growth and development.<sup>2</sup>

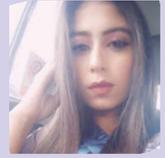
## THE TYPES OF INFANT FORMULAS AVAILABLE

There are three main types of infant formulas: first milks, second milks and follow-up milks. From these, other formulas are prescribed if the baby is intolerant to lactose in cow's milk protein.<sup>1</sup> Milk-based formulas offer

complete nutrition. However, babies may develop an allergy due to the compounds within cow's milk in the formula. Therefore, these milks are not designed for children with cow's milk allergy (CMA).<sup>2</sup>

**First milks** are formulas prescribed for newborn babies. These are based on cow's whey and casein protein.<sup>1</sup> However, whey protein is considered to be more easily digestible than casein.<sup>1</sup> In combination with breast milk, or on their own, first milks are designed for the first six months. After six months, solid foods can be introduced and cow's milk can be introduced at the age of one.<sup>3</sup>

**Second milks** are formulas for babies who are much hungrier and who often require additional feeds. These milks are based on the curd of cow's milk and are not recommended for younger babies as they take longer to digest.<sup>1</sup> This is because although the macronutrient proportions (carbohydrates, proteins and fats) are the same as in first milks, the presence of casein is slightly more than whey, making these milks unsuitable for young babies.<sup>3</sup>



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## REFERENCES

Please visit:  
[www.NHDMag.co.uk/article-references.html](http://www.NHDMag.co.uk/article-references.html)

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This information is intended for Healthcare Professionals only.

Nutrini Peptisorb Energy is a Food for Special Medical Purposes for the dietary management of disease related malnutrition in children from one year onwards with malabsorption and/or maldigestion, and must be used under medical supervision.

<sup>1</sup>Data on file (2016). ACBS trial, n=(7), Nutricia Ltd.

\*Gastrointestinal

Accurate at time of publication, February 2022

**NUTRICIA**  
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Most milk formulas contain animal milk protein and there are currently no vegan milk formulas in the UK, as those without animal proteins still contain vitamin D from sheep's wool. It is recommended that mothers who follow a vegan diet should breastfeed throughout the first years of life.

**Follow-on milks** are formulas designed for babies from the age of six months. However, these milks are not necessarily needed for growth and development.<sup>3</sup> They should never be given to babies before the age of six months as they contain more iron, as well as sucrose, glucose and other milk sugars, which are indigestible for the baby during this stage of life.<sup>3</sup>

Parents and carers are advised to stick to one brand of formula. This is to allow the healthcare professionals to assess and monitor progression in the infant's development and whether the body can adapt to the formula given. If any issues occur, parents and carers must go to a GP or healthcare professional for further advice.<sup>4</sup>

#### SPECIALISED FORMULAS FOR ALLERGIES AND INTOLERANCES

**Partially hydrolysed formulas** (for example: Enfamil NeuroPro™ Gentlease®, Gerber® Good Start® Gentle or Similac® Pro-Total Comfort™) break down the milk proteins into small pieces so they can be easily absorbed.<sup>2</sup> Some formulas contain milk proteins that are hydrolysed, whilst others contain 100% milk proteins. These formulas are not used for infants with CMA.<sup>2</sup>

**Extensively hydrolysed formulas** (Enfamil® Nutramigen®, Enfamil® Pregestimil®, Similac® Alimentum® or Similac® Expert Care®) can provide optimum nutrition for those babies who are allergic to cow's milk. Due to casein being the main cause of allergy, these formulas are designed so that the casein is broken down, making the formulas more digestible.<sup>2</sup>

**Amino acid-based formulas** (Neocate®, EleCare®, PurAmino™, Alfamino™) provide benefits to infants, toddlers and older children who require additional nutrition support.<sup>2</sup> These formulas are designed to be tolerated by babies and young children who are allergic to extensively hydrolysed formulas, as these contain amino acids, the building blocks for protein, which are essential for good growth and development.<sup>2</sup> As they do not contain milk proteins, these are often tolerated by those with allergies or intolerances.

#### OTHER MILK FORMULAS

**Goat's milk formulas** are produced with the same nutritional standards as cow's milk formulas.<sup>1</sup> In 2014, the UK Government regulations changed and allowed goat's milk proteins to be used and administered in infant formula. Therefore, feeding babies with this formula is now acceptable.<sup>3</sup> Nonetheless, if the baby has an allergy to cow's milk, goat's milk formula is unsuitable due to similar protein content.<sup>3</sup>

#### Goodnight milks

These formulas contain follow-on milk and cereal (rice and buckwheat) and are designed for babies from six months of age up to three years.<sup>3</sup> These formulas are not necessary for growth and development and no research or evidence suggests they help babies sleep better.<sup>3</sup> SACN issued a statement on these products in 2008, on a request from the Department of Health. The Committee found no scientific evidence that the use of goodnight milks offered any nutritional or health advantage.<sup>5</sup>

### Soya formulas

Soya formulas are made from soybeans and are used as alternatives to cow's milk. However, they are not recommended for babies under the age of six months without monitored medical supervision.<sup>4</sup>

These formulas are high in a chemical called phytoestrogen,<sup>3</sup> which has a similar structure to the female hormone, oestrogen. Therefore, these formulas are only administered in exceptional circumstances and by a GP or registered healthcare professional.<sup>1</sup>

### TYPES OF MILKS TO AVOID

Not all milk types are suitable for feeding babies. Until the child reaches the age of one, the following milks should not be given:<sup>1</sup>

- Condensed milk
- Evaporated milk
- Dried milk powder
- Goat's or sheep's (unless they are pasteurised)
- Milk alternatives (soya, rice, oat, almond)
- Cow's milk

### VEGAN OR VEGETARIAN FORMULAS?

Most milk formulas contain animal milk protein and there are currently no vegan milk formulas in the UK, as those without animal proteins still contain vitamin D from sheep's wool.<sup>4</sup> It is recommended that mothers who follow a vegan diet should breastfeed throughout the first years of life. They can then choose milk alternative sources after the age of one. Parents who still wish to stick to alternative milk sources should seek advice from healthcare professionals to ensure their baby's nutritional needs are met.<sup>4</sup>

### CONCLUSION

There are so many formula types and brands on the market and deciding on the best formula to use for special needs babies can be confusing and worrying for new mums. Healthcare professionals guide and advise parents and carers when administering formula feeds.<sup>4</sup> Educating parents and carers about the different formulas available and those most suitable for the condition of the child is essential in order to maintain growth and development of newborns and infants who need special care, providing them with the best start in life.



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