

## Neonatology

# Plant-based formula milks

## Information for parents and carers

### Introduction

Parents and carers wishing their babies to follow a vegan diet are strongly encouraged to breast milk feed.

However, there are some options to consider if you:

- choose not to breast feed
- are unable to breast feed
- are not able to express enough breast milk to meet your baby's needs

At present, there are no infant formulas sold in the UK that are entirely vegan. While some formulas may be free from animal-derived milk ingredients (such as those made from rice or soy), the added vitamin D (specifically vitamin D3) is often derived from lanolin, a substance obtained from sheep's wool.

If you are considering using a plant-based formula for your baby, it's important to be aware of certain factors, both during your baby's hospital stay and after discharge.

### Milk-kitchen facilities

We have very limited milk-kitchen facilities on the neonatal units and the post-natal wards at Imperial College Healthcare NHS Trust (ICHNT).

As a result, we do not usually accept any powdered formula milk on the unit. Exceptions are made only for babies with specific medical conditions where no ready-to-feed (liquid) alternative is available, for example, in cases of liver disease, allergies, or severe feeding intolerances.

This policy is in place because ready-to-feed formula provides better protection against infection. It is therefore used for all other babies who require formula feeding during their hospital stay.

### Rice-based formula

A rice-based infant formula, specifically designed for infants with a cow's milk protein allergy, is now available in the UK. But it must be prescribed by a doctor.

This formula is formed using extensively hydrolysed rice protein, making it a plant-based alternative to traditional cow's milk-based formulas. It is suitable for vegetarian, halal, and

kosher diets. This formula is not vegan as it contains 2'-Fucosyllactose (2'-FL), which is biosynthesized from lactose. The vitamin D is derived from seaweed rather than lanolin.

It is licensed for infants above 35 week's gestation but please note:

- rice-milk based formula milks are not designed to meet the enhanced needs of premature babies
- formula milks designed for premature babies would better meet their nutritional needs

We would like to respect your choices about your baby's milk. So, if you provide your own rice-milk based infant formula milk we may be able to make this up for your baby.

## Soy-based formula

Soy-based infant formula was previously available in the UK but has been discontinued due to ongoing supply issues. Although these formulas remain available in some European countries.

If you choose to source and provide soy-based infant formula for your baby, please note:

The British Dietetic Association (BDA) Paediatric Group recommend, as a precautionary measure, the '*use of a soy based infant formula... should be discouraged during the first six months of life*'. This is because there are concerns about the number of phytoestrogens (isoflavones) in soy-based formula milks. There are concerns that these could have long-term effects if consumed during infancy.

These potential long-term effects include:

- in adult women: an increase in prolonged and painful menstruation
- in men: suppressed testosterone (male hormone)

More research is needed on the safety of soy-based infant formulas. The BDA Paediatric Group recommendations are in line with what other nutritional bodies say. These bodies include:

- |   |  |
|---|--|
| • American Academy of Paediatric (AAP, 2008)  | • European Society for Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN, 2006) |
| • Committee on Toxicity of Chemicals in Food, Consumer products and the Environment (COT, 2003) | • Scientific Advisory Committee on Nutrition (SACN, 2018)                                    |

For **premature** babies, soy-based infant formulas are not recommended.

For **term** babies, soy-based formula could be an appropriate choice once your baby is over 6 months of age. This is because it is possible that there are reduced risks after 6 months of age as the phytoestrogens per kg body weight will be lower when formula intake decreases, and solid food intake increases.

Your baby's organ systems that are potentially vulnerable are also likely to have matured. This reduces the long-term risk of harm.

We would like to respect your choices about your baby's milk. So if you provide your own soy-based infant formula milk we may be able to make this up for your term baby.

## Donor breast milk

While ICHNT has a donor milk bank for those babies born very early or very sick, the mothers who donate breast milk are likely eating a diet containing animal products. Vegan donors cannot be identified for your baby and as such donor breast milk is not vegan.

## Useful resources

[www.firststepsnutrition.org/vegan-infants](http://www.firststepsnutrition.org/vegan-infants)

## How do I make a comment about my visit?

If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**). The PALS team will listen to your concerns, suggestions or queries. They are often able to help solve problems on your behalf.

call: **020 3313 0088**

email: [imperial.pals@nhs.net](mailto:imperial.pals@nhs.net)

Or, if you need to **complain**, contact the Complaints department.

call: **020 3312 1337 / 1349**

email: [ICHC-tr.Complaints@nhs.net](mailto:ICHC-tr.Complaints@nhs.net)

write: Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street, London W2 1NY

## Alternative formats

This leaflet can be provided on request in large print or easy read, as a sound recording, in Braille or in alternative languages. Please email the communications team:

[imperial.communications@nhs.net](mailto:imperial.communications@nhs.net)

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