

The sections in red below show where we have made changes to the report '*Infant Milks in the UK*' in May 2018.

## 1 Introduction

- 1.1 What does this report contain?
- 1.2 Format of the report
- 1.3 Working with the Unicef UK Baby Friendly Initiative

## 2 A simple guide to choosing milks for infants and toddlers

- 2.1 Frequently asked questions

## 3 The composition of infant milks

- 3.1 What are the main differences between breastmilk and infant milks?
- 3.2 What ingredients are used to make infant milks?
- 3.3 How are infant milks made?
  - 3.4 Results of surveys of the nutritional composition of infant milk
- 3.5 Foods for special medical purposes
- 3.6 Energy content of infant milks
- 3.7 Protein content of infant milks
  - 3.7.1 *α-lactalbumin*
  - 3.7.2 *Nucleotides in infant milks*
- 3.8 Fat content of infant milks
  - 3.8.1 *Long chain polyunsaturated fatty acids (LCPUFA) in infant milks*
  - 3.8.2 *Structured triglycerides in infant milks*
  - 3.8.3 *Phospholipids*
  - 3.8.4 *Anhydrous milk fat*
- 3.9 Carbohydrate content of infant milks p18 only
  - 3.9.1 *Prebiotics in infant milks*
  - 3.9.2 *Human milk oligosaccharides*
- 3.10 Vitamins and minerals in infant milks
  - 3.10.1 *Calcium in infant milks*
  - 3.10.2 *Iron in infant milks*
  - 3.10.3 *Vitamin D in infant milks*
- 3.11 Other ingredients in infant milks
  - 3.11.1 *Choline*
  - 3.11.2 *Inositol*
  - 3.11.3 *L-carnitine*
  - 3.11.4 *Lutein and zeaxanthin*
  - 3.11.5 *Taurine*

- 3.12 Probiotics and synbiotics in infant milks
  - 3.12.1 *Acidified Infant Milk*
- 3.13 Non-essential trace elements: fluoride content of infant milks
- 3.14 Additives in infant milks

## 4 Contaminants in infant milks

- 4.1 Bacterial contamination of powdered infant milks
- 4.2 Aluminium contamination of infant milks
- 4.3 Uranium contamination of infant milks
- 4.4 Cadmium contamination of infant milks
- 4.5 Process contaminants from oil refining in infant milks

## 5 Infant milks available in the UK

- 5.1 Macro and micronutrient requirements of the Infant Formula and Follow-on Formula Regulations, and Foods for Special Medical Purposes regulations
- 5.2 **Infant milks currently available in the UK**
- 5.3 Milks suitable for specific population groups
  - 5.3.1 *Infant milks for vegetarians*
  - 5.3.2 *Infant milks for vegans*
  - 5.3.3 *Halal and kosher milks*
- 5.4 **Infant formula suitable from birth (cows' milk based)**
- 5.5 Infant milk suitable from birth (goats' milk based)
- 5.6 Infant formula marketed for hungrier babies, suitable from birth (cows' milk based)
- 5.7 Thickened (anti-reflux) infant milks suitable from birth
- 5.8 Soya protein based infant formula suitable from birth
- 5.9 Lactose-free infant milks suitable from birth
- 5.10 Partially hydrolysed infant milks suitable from birth
  - 5.10.1 *Partially hydrolysed whey-based milks marketed as comfort milks*
  - 5.10.2 *Partially hydrolysed infant milk marketed as preventing cows' milk protein allergy*
- 5.11 Follow-on formula marketed for infants from 6 months of age
- 5.12 Good night milk
- 5.13 Milks for which there are no compositional regulations: milks marketed for young children
- 5.14 Milks for which there are no compositional regulations: soya protein based milks marketed for young children
- 5.15 PaediaSure Shake
- 5.16 Other milks unsuitable for infants and toddlers

## 6 How much milk is needed and how to make it up safely

- 6.1 Birth to 6 months
- 6.2 Older infants
- 6.3 Ready-to-feed milks

- 6.4 Powdered milks
- 6.5 Water used to make up powdered milk
- 6.6 How to make up infant milks safely
- 6.6.1 ***Making milk up safely when away from home, using water kept warm in a vacuum flask***
- 6.7 Formula preparation machines

## 7 For more information

Useful organisations  
[Infant formula companies](#)

### Appendix 1 Background

A brief history of infant milks  
Development of the regulation of infant milk composition  
The International Code of Marketing of Breast-milk Substitutes  
Infant feeding patterns in the UK  
[The infant milk market in the UK](#)  
The international infant milk market  
European legislation on infant formula and follow-on formula  
Marketing of infant and follow-on formula

### Appendix 2 Monitoring the composition and safety of infant milks

European safety reviews of infant milk manufacturers  
Lapses in production and labelling of infant milks

## References

## Index

## List of Tables

### Section

<b>Table 1</b>	A simple guide to choosing milks for infants and toddlers up to 2 years of age	2
<b>Table 2</b>	Iron content of major-brand first infant formulas suitable from birth and follow-on formulas marketed from 6 months of age, compared to the 'target' nutrient values proposed by EFSA (2014)	3.10
<b>Table 3</b>	Examples of additives permitted in infant formula, follow-on formula and foods for special medical purposes for infants and children	3.14
<b>Table 4</b>	Macro and micronutrient requirements for infant formula and follow-on formula	5.1
<b>Table 5</b>	Macro and micronutrient composition of the three main first infant milks sold in the UK and mature breastmilk, compared to regulations for infant formula	5.1
<b>Table 6</b>	Macro and micronutrient requirements for infant formula, follow-on formula and foods for special medical purposes	5.1
<b>Table 7</b>	<b>Infant milks available in the UK</b>	5.2
<b>Table 8</b>	<b>Infant milks suitable for vegetarians and vegans, and for those wanting halal products</b>	5.3
<b>Table 9</b>	<b>The nutritional composition of powdered infant formula suitable from birth (cows' milk based)</b>	5.4
<b>Table 10</b>	<b>The nutritional composition of ready-to-feed infant formula suitable from birth (cows' milk based)</b>	5.4
<b>Table 11</b>	<b>The nutritional composition of infant formula suitable from birth (goats' milk based)</b>	5.5
<b>Table 12</b>	<b>The nutritional composition of infant formula marketed for hungrier babies, suitable from birth (cows' milk based)</b>	5.6
<b>Table 13</b>	The nutritional composition of thickened (anti-reflux) infant milks suitable from birth	5.7
<b>Table 14</b>	The nutritional composition of soya protein based infant formula suitable from birth	5.8
<b>Table 15</b>	The nutritional composition of lactose-free infant milks suitable from birth	5.9
<b>Table 16</b>	The nutritional composition of partially hydrolysed infant milks suitable from birth	5.10
<b>Table 17</b>	Summary of some of the differences in selected nutrients between major-brand first infant formulas suitable from birth and follow-on formulas suitable from 6 months of age	5.11
<b>Table 18</b>	<b>The nutritional composition of follow-on formula marketed for infants</b>	5.11

	from 6 months of age	
<b>Table 19</b>	The nutritional composition of follow-on formula marketed for infants from 6 months of age (goats' milk based)	5.11
<b>Table 20</b>	The nutritional composition of good night milk	5.12
<b>Table 21</b>	Micronutrient composition of main milks marketed for young children, compared to whole cows' milk	5.13
<b>Table 22</b>	The nutritional composition of growing-up milks and toddler milks suitable from around 1 year of age (powder formulation), compared with full-fat cows' milk.	5.13
<b>Table 23</b>	The nutritional composition of goats' milk based growing-up milks suitable from around 1 year of age (powder formulation only)	5.13
<b>Table 24</b>	The nutritional composition of growing-up milks and toddler milks suitable from around 2 years of age (powder formulation), compared with semi-skimmed cows' milk	5.13
<b>Table 25</b>	The nutritional composition of a soya protein based growing-up milk suitable from around 1 year of age, compared with standard unsweetened soya milk	5.14
<b>Table 26</b>	The nutritional composition of PaediaSure Shake compared with full-fat cows' milk	5.15
<b>Table 27</b>	Estimated amounts of infant formula required, using energy requirements from the SACN report <i>Dietary Reference Values for Energy</i> (2011)	6.1
<b>Table 28</b>	Feeding guides suggested for the three main brands of first infant formula	6.1
<b>Table 29</b>	Guidelines on the safe preparation and storage of powdered infant formula milks	6.6
<b>Table 30</b>	Temperature of boiling water stored in a 1000ml and 500ml vacuum flask	6.6