

What's in milk?

Human milk

Human milk has sustained babies for thousands of years. It is specific to the human species. It provides for our unique brain and neurological development. Milk for other species may provide for their rapid growth, long bones, heavy muscles or even for their tolerance of arctic water temperatures. We are all different species with different needs.

Human milk has known nutrients and immune factors, as well as factors not yet researched. Samples of human milk may be analysed in a laboratory, however what matters is how the components are utilised by the baby's system and interact with other components, not just that the components exist in the milk.

Human milk provides all the water the infant needs even in a hot environment as long as the baby has access to the breast without limitations. The protein in human milk provides energy and nitrogen for growth of new tissues and for immune function. Non-protein nitrogen and nucleotides are important for growth factors, maturation of the immune systems and synthesis of our human DNA and RNA.

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Manufactured infant formula

Infant formula ingredients are regulated by EU directives that require minimum and maximum levels of nutrients and additives, and monitoring for safety. EU directives allow for cows milk or soya beans to be used as the base liquid. Milk from sheep goats and other animals or from other vegetables (such as rice or oat milk) cannot be sold in the EU for young infants. Various brands use ingredients to achieve their aim, for example a high casein: whey ratio to achieve a slow digestion rate and prolonged feeding intervals that is marketed for the "hungry baby" or the "extra hungry" baby.

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July 2011

What's On

Aug 1st-7th Worldwide
World Breastfeeding Week <http://worldbreastfeedingweek.org/>

Sept 1st Institute of Technology Athlone
Closing date for registration for Lactation Studies autumn modules www.ait.ie/lactation/

Sept 14-16th Sweden
Neonatal BFHI Conference www-conference.slu.se/neobfhi2011/index.html

Sept 16th Limerick
ALCI Conference www.alcireland.ie/

Oct 1st-7th Ireland
National Breastfeeding Week
www.breastfeeding.ie/

Oct 10th Ireland
Autumn programme of courses commences including Training the Trainer, Becoming an IBCLC, Breastfeeding Supportive Pharmacy, and Promotion Activities.
Booking from August 1st www.bestservices.ie

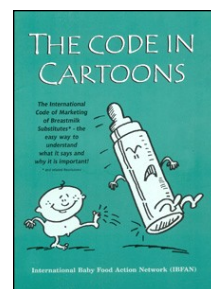
Resources of the Month



Infant Feeding : a resource for health care professionals and parents

Produced by the Royal College of Midwives, this 26 page referenced booklet provides information on the composition of human milk and formula milks. Appendices include storage of expressed milk at home, giving accurate information to parents on formula milks, and helping parents to reduce possible risks in formula use.

[Order on-line](#) from BEST Services.
Only €1.50

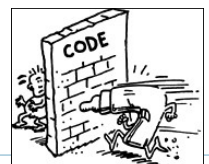


The CODE in Cartoons

The easy way to understand the main points of the International Code of Marketing of Breastmilk Substitutes and why it is important. This 12-page booklet from IBFAN has simple text and lively cartoons.

[Order on-line](#) from BEST Services. **Only €1.50**

Ask about bulk discounts on both items.



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While Stocks Last

THIS ISSUES' FREE DOWNLOADS and LINKS

More on previous page

- ☺ Infant Milks in the UK. Report from the Caroline Walker Trust provides information on what's in infant milks, how evidence for claims is compiled and monitored and much more. <http://www.cwt.org.uk/publications.html#milk2>
- ☺ Survey on the Marketing, Advertising and Distribution of Infant Formulae and Follow-on Formulae. Food Safety Authority of Ireland. What goes on in maternity services, ads in magazines and internet? Can parents distinguish between ads for newborn formula and for milks for older babies?. http://www.fsai.ie/resources_publications.html
- ☺ Marketing of Infant Formulae + Follow-On Formulae leaflet on main points of the Irish legislation. Food Safety Authority of Ireland. http://www.fsai.ie/resources_publications.html
- ☺ BFHI Link the newsletter of the Baby Friendly Hospital Initiative in Ireland. Issue 24: Providing information on infant formula without marketing; Issue 27: Composition of Human Milk and Mother's Milk is Magic; and more. http://www.ihph.ie/babyfriendlyinitiative/bfhi_link.htm
- ☺ Need to know about medications and breastfeeding? Free App from LactMed (National Institute of Health, USA) <http://toxnet.nlm.nih.gov/help/lactmedapp.htm>
- ☺ Do people stare at a breastfeeding baby? How would they feel if the baby stared at them eating? Visit <http://www.youtube.com/watch?v=X9PDqLpKcAs&feature=share>

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Human milk

As well as lactose for energy, human milk contains over 200 different oligosaccharides to prevent pathogens binding to the internal epithelium such as the bladder wall thus protecting from infections. Some of these oligosaccharides are individual to a mother and the pathogens that are in her environment.

Fats and fatty acids are used for energy as well as development of cells, particularly related to nerves and eyes. Human milk contains cholesterol which is important in hormone production.

Human milk changes during a feed with the fore milk quenching the baby's thirst before the higher fat hind milk. Milk after a preterm birth is a different composition from mature milk. It reflects the foods the mother eats thus providing the baby with an introduction to the taste of the family's foods.



Manufactured infant formula

Animal fat does not process and store easily thus skim milk with added modified vegetable oil is usually used in manufactured milk. Specific fatty acids may be added to some brands from vegetable or fish oils. The addition of these processed fatty acids is optional, not a requirement. Not all formulas use added oils that are acceptable to vegetarians.

Infant formula does not contain additives proven to have a beneficial outcome on the development of the infant's immune system. Formula is permitted to have added starch if it is gluten free starch. There is no evidence that more expensive formula products confer an advantage to infants.

Infant formula is also manufactured that is lactose-free, hydrolysed protein, thickened, high energy, low sodium and other modifications. These specialist formula should only be used under expert paediatric guidance.

Did you know?

The National Perinatal Statistics Report 2009 is now available to download.

What is the breastfeeding rate at hospital discharge? Which mothers are least likely to breastfeed? Which countries have the highest rates? And much more from the national statistics on all births.

http://www.esri.ie/publications/latest_publications/view/index.xml?id=3289

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Good luck

To everyone taking the IBLCE exam on July 25th