

Why Breast is Best

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Overview

- Did you know...?
- Composition of breast milk
- Additional benefits of breast milk
- Difficulties with breast feeding
- How to overcome breast feeding problems
- Ideal breast feeding diet
- Recommended supplements
- Summary
- Where to find Help

Did you know...?

Did you know.....?

- Each year if all babies worldwide were exclusively fed breast milk for the first 6 months:
 - The lives of an estimated 1.5million babies would be saved
 - The health and development of millions of others would be greatly improved

Did you know.....?

- Breast fed babies are less likely to suffer from:
 - Obesity
 - GI infections*
 - Respiratory infections
 - Middle ear infections
 - Urinary infections*
 - Allergies e.g. asthma, eczema, hay-fever
 - Chronic diseases e.g. celiac disease, Type II diabetes
 - Autoimmune diseases e.g. MS, Type I diabetes
 - SIDs (research has shown that there may be a protective effect)

*Premature babies who are not breastfed are up to 10 times more likely to suffer a life-threatening bowel disorder

*During the first 6-months, formula babies are 5 times more likely to suffer from a UTI

Did you know...?

- Breastfeeding mums:
 - Gain better protection from cancers (e.g. breast and ovarian cancer) and may gain better protection from Rheumatoid Arthritis (by reducing levels of the inflammatory hormone cortisol)
 - May gain greater protection from osteoporosis
 - Feel less stressed (prolactin encourages calmness)
 - Have increased mental alertness (oxytocin boosts S-T memory)
 - Experience greater maternal feelings (promoted by oxytocin)
 - Recovery from birth faster (higher oxytocin levels result in less postpartum bleeding and quicker uterine healing)
 - Lose weight more quickly

DOH/WHO Facts

“Breastfeeding is accepted as the best form of nutrition for infants to ensure a good start in life [DOH, 2007].”

“No more than 35% of babies worldwide are exclusively breastfed during their first 4 months* of life; complementary feeding often begins too early or too late and foods are often nutritionally inadequate or unsafe. Malnourished children who survive are often sick and suffer life-long consequences of impaired development [WHO, 2003].”

*The most recent UK data (2000) indicates that 71% start by breastfeeding. This is reduced to 29% by 4 months and fewer than 2% are exclusively breastfed for 6 months!

Current DOH Guidelines

“Breast milk provides all the nutrients a baby needs. Exclusive breastfeeding is recommended for the first six months of an infant’s life.”

“Six months is the recommended age for the introduction of solid foods for infants.”

“Breastfeeding (and/or breast milk substitutes, if used) should continue beyond the first six months along with appropriate types and amounts of solid foods.”

Breast milk and Formula Comparison

How does Breast Milk differ from Formula?

Formula?



Composition of Breast Milk (1)

- **Colostrum:**
 - This is produced in the first 3 days.
 - It is rich in antibodies, protein, minerals and vitamins A, E and B12.
- **Friendly Gut Bacteria:**
 - This is radically different between breast fed and formula fed babies.
 - Bifido bacteria (which helps support the immune system) is not present in formula milk.
 - Breast fed babies are less likely to have GI infections than formula fed babies.

Composition of Breast Milk (2)

- **Enzymes and Hormones:**
 - More than 70 enzymes have been identified in breast milk!
 - Only breast milk contains appropriate milk-digesting enzymes (e.g. lipase and amylase) and around 15 different hormones (e.g. insulin, thyroid hormones, prolactin, oxytocin, sex hormones and prostaglandins).
- **Digestive lining support:**
 - Breast milk is believed to contain substances that help your baby's digestive tract to mature.
 - These include cortisone, epidermal and nerve growth factors which properly encourage a body's gut wall to become resistant to foreign proteins faster than bottle-feeding does.
 - This means that breast milk may reduce susceptibility to potential allergies.

Composition of Breast Milk (3)

- **Antibodies:**

- Breast milk, especially colostrum, contains antibodies which coat the gut lining in babies and prevent the absorption of foreign organism and allergens.
- These include secretory IgA, lactoferrin, lysozyme, complement and maternal macrophages.
- Lysozyme and lactoferrin work with IgA to kill bacteria and virus
- Friendly bacteria in breast milk inhibits growth of E.Coli, a common cause of GI infections in formula fed babies

Breast milk is also:

- rich in living white blood cells (e.g. lymphocytes which make antibodies) which stick to gut wall lining

Hardly any immune fighting compounds are present in formula as cow's milk is heated and these compounds are inactivated

NB: When mother is exposed to a germ, she makes antibodies to that germ and gives these antibodies to her infant via her breast milk.

Composition of Breast Milk (4)

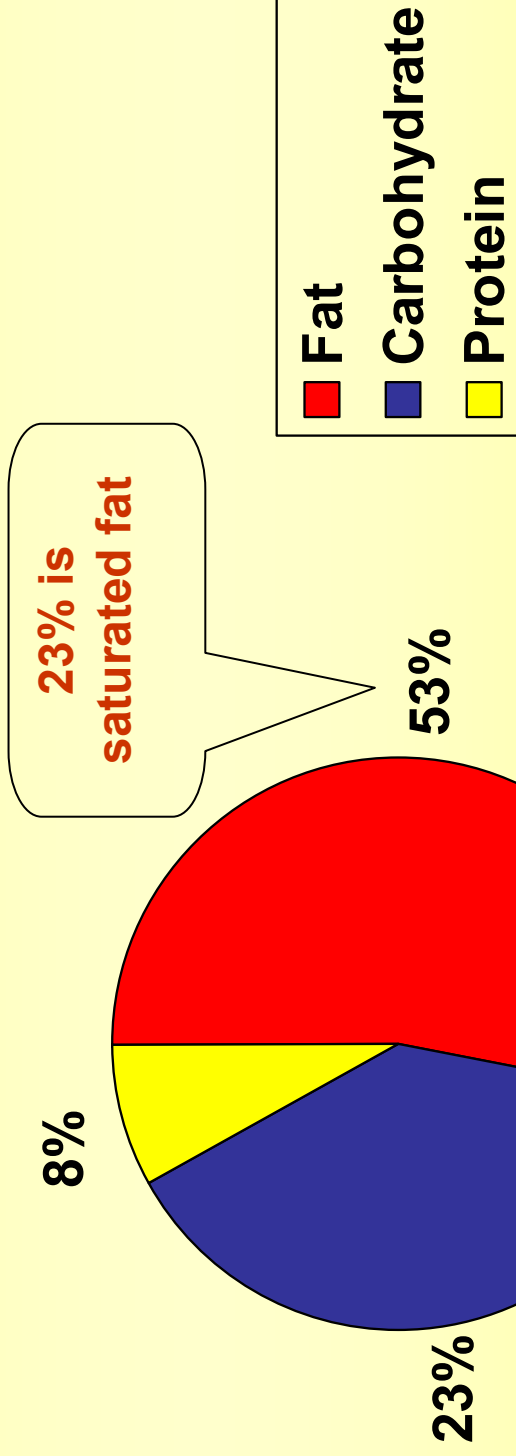
- What % of energy comes from Fat, Carbohydrate, Protein*?

	A %	B %	C %
Fat	33	53	27
Carbohydrate	47	39	56
Protein	15	8	17

*Total energy requirements

Composition of Breast Milk (4)

- % Fat, Carbohydrate, Protein (B)



Source: Nutrition: A Health Promotion Approach, G. Webb

Composition of Breast Milk (5)

- Essential Fats:

- 50-60% of breast milk is made from fat.
- Essential fats are vital for proper brain, nervous and vascular development, proper development of the gut and the immune system.

Specifically:

- Breast milk is rich in brain-building omega 3s, namely DHA and AA
- A mother's milk flow automatically adjusts to her baby's needs; levels decline as her baby gets older
- Rich in cholesterol (vital for hormone and vitamin D synthesis)
- Nearly completely absorbed
- Contains fat-digesting enzyme, lipase

NB: While formula milks are getting better at incorporating essential fats, the exact composition cannot be duplicated

Composition of Breast Milk (6)

- Protein:

- The protein in breast milk is easily digestible whey and is more completely absorbed than protein in cow's milk and other formula

Specifically:

- Protein content is higher in the milk of mothers who deliver preterm
- Lactoferrin (iron-binding and anti-infective) for intestinal health (none in formula)
- Lysozyme, an antimicrobial (none in formula)
- Rich in brain-and-body- building protein components (deficient or low in formula)
- Rich in growth factors (different growth factors in formula milk)
- Contains sleep-inducing proteins (less in formula milk)

NB: Babies are not allergic to breast milk protein!

Composition of Breast Milk (7)



- Carbohydrate:
 - Rich in lactose (lacking in some formulas)
 - Rich in oligosaccharides, which promote intestinal health (deficient in some formulas)

NB: Lactose is considered an important carbohydrate for brain development. Studies show the level of lactose in the milk of a species correlates with the size of the brain of that species

Composition of Breast Milk (8)

- **Vitamins and Mineral Balance**
 - Mineral balance between breast and formula milk is different (NB: concentration of minerals is fourfold that of breast milk).
 - Minerals such as manganese, zinc and iron are better absorbed in breast milk due to the presence of hormones in breast milk, which are absent in formula milk.
 - Calcium is also less easily absorbed in formula milk, because it has a higher amount of saturated fat.
 - Breast milk is rich in the form of vitamin D called 25OHD, which is the best form to avoid rickets; vitamin C is higher in breast milk compared to most formulas.

Additional Benefits of Breast milk

Additional Benefits (1)

- Increased skin-to-skin contact:
 - Greater intimacy with baby
 - Greater stress-relief hormones
- Weight lose in mother:
 - Approximately 33% of energy and fat requirement in breast milk is derived from stored body fat
- Convenience:
 - No getting up in the middle of night to prepare formula milk
- Safety
 - Formula milk can dehydrate a baby if made up too strong
 - 13 babies died in China in 2004 from contaminated formula

Additional Benefits (2)

- Cost-saving:
 - Breast milk is free!
- Green (eco-friendly)
 - Does not impact on the environment

Weaning generally easier:

- This is because the composition of breast milk varies every day depending on what has been eaten (formula is always the same)
- Consequently, babies who are breastfed are “primed” to accept different tasting foods more readily

Difficulties with Breastfeeding

Breast feeding isn't easy!

Reasons why mums don't continue to breastfeed by 6th week*

- **Insufficient milk (53%)**
- **Took too long/too tiring (24%)**
- **Painful breasts/nipples (23%)**
- **Baby rejected breast (13%)**
- **Mother ill/drug treatment (10%)**
- **Baby ill (6%)**

Reasons for not starting breastfeeding

- **Other people can feed baby with bottle (29%)**
- **Didn't like the idea of breastfeeding (27%) – social image / embarrassment**

Possible Disadvantages of Breast feeding for Baby

- Mum malnourished: milk may not contain sufficient protein or fat
- Insufficient milk: baby may become severely dehydrated and can starve

Difficulties with Breastfeeding: What to do

What to do if in difficulty

- Speak to your midwife or health visitor
- See your doctor
 - You/your baby may have thrush (or another condition) which is causing the problem and can be treated medically
- See a breast feeding counsellor (also called lactation counsellor)
 - Will come to your home (not cheap, but worth every penny)
 - Do not rely on telephone support as you need to be shown how to hold your baby correctly when breastfeeding
- See a nutritional therapist
 - She will advise you how to follow the “ideal breastfeeding diet”. Making sure you are eating well when you are looking after a baby isn’t as easy as it seems

The Better Breast Feeding Diet



Better breast feeding diet (1)

- **Eat 3 meals and 2 good snacks a day:**
 - Breast feeding increases your appetite
- **Eat plenty of complex carbohydrate:**
 - Wholegrains, vegetables, pulses/legumes
 - Oatcakes, bean, avocado or humous dips
- **Eat good quality protein:**
 - Quiona, millet, soya, fish, beans, lentils, eggs, chicken, cottage cheese, natural yoghurt, seeds and nuts
- **Eat oily fish at least twice a week:**
 - Mackerel, salmon , herring, sardine/pilchard, fresh tuna
 - Good sources of essential fatty acids for you and your baby

Better breast feeding diet (2)

- Eat at least 5 portions of fruit and vegetables a day:
 - Apples, pears, courgettes, spinach, tomatoes
- Snack on fruit, nuts and seeds:
 - And not on sugary snacks, such as biscuits
- Drink at least 1.5 litres (2 1/2 pints) of filtered or mineral water a day:
 - Always have a drink beside you when you sit down to feed as your baby's sucking will stimulate thirst
 - There is nothing more annoying than wanting a drink³⁰ when you have just got settled

Better breast feeding diet (3)

- The UK DoH recommends that all breastfeeding mothers take a vitamin and mineral supplement to ensure your breast milk has enough nutrients for your baby
- Good quality supplements include:
 - Solgar's prenatal nutrients tablets;
 - Biocare's Ante-natal forte tablets;
 - Nutri's Post Natal Support

What to Avoid (1)

- **Caffeine:**
 - Found in coffee, tea, chocolate, coca cola/fizzy drinks
 - Can cause irritability and sleeplessness in you and your baby and in large enough amounts (e.g. 6-8 cups coffee a day) can cause abnormal activity/sleep behaviour in your child.
 - After drinking coffee, caffeine starts to enter your breast milk within 15 minutes and peaks within an hour
 - Drink coffee after breast feeding your baby to allow caffeine levels to fall again for the next feed
- **Theobromine:**
 - Found in chocolate and is rather like caffeine, a stimulant that can make your baby irritable
- **Nicotine:**
 - Can affect your baby's heart rate, cause vomiting and diarrhoea

What to Avoid (2)

- **Alcohol:**
 - Alcohol can damage your baby's brain cells
 - Drink Appletizer, Aqua Libra or fizzy water instead
 - If you do have an occasional drink, enjoy it after the last feed of the day and avoid breast feeding for at least four hours
 - **A study undertaken in 2001 found that babies drank about 20% less milk during the four hours after consuming alcohol**
- **Artificial sweeteners:**
 - Like aspartame (found in fizzy drinks, squashes, and low-calorie foods) can make your baby hyperactive
- **Avoid dieting:**
 - Fat stores contain residues of pesticides; dramatic weight loss releases these stored toxins into your blood and may pass into your breast milk

What to Avoid (3)

- Avoid over the counter and prescription drugs:
 - These may affect your baby's development
 - If you take any medication, consult your doctor regarding breast feeding

Breastfeeding Supplements

1. **Multivitamin and mineral**
2. **Fish oil supplement providing daily**
 - 600 mg EPA
 - 400 mg DHA
3. **Gamma linolenic acid (GLA) supplement**
 - 200mg GLA daily
4. **Zinc citrate**
 - 15 – 20mg zinc
5. **Probiotics**
 - Biocare Bio-Acidophilus Forte (24bn per capsule)
6. **Vitamin C**
 - 1,000-2,000mg

Summary

- Breastfeeding gives your babies all the nutrients s/he needs in the first 6 months of life
- Breastfeeding protects you and your baby from diseases and illnesses
- Breastfeeding helps you and your baby bond more deeply – both physically and emotionally
- Infant formula isn't as easy to digest as breast milk and doesn't protect your child from diseases and illnesses

Lend your support

- It is breast feeding awareness week (13 May to 19 May)
- Please support Unicef and WHO, by adding your support and lobbying your local MP

www.unicef.org.uk/campaigns/take_action/petition/?action=37&thesource=alert0507

Where to Find Help

- National Childbirth Trust
www.nct.org.uk
0870 444 8708
- The Breastfeeding Network
www.breastfeedingnetwork.org.uk
0870 900 8787
- La Leche League
www.laleche.org.uk
0845 120 2918
- Association of Breastfeeding Mothers
www.abm.me.uk
0870 401 7711