

Breastmilk and breastfeeding

A simple guide

FIRST STEPS NUTRITION TRUST



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This simple guide to breastmilk and breastfeeding explains why breastfeeding is important for everyone: babies, mums and the world we live in. For more detailed information and support on any aspect of breastfeeding, see the list of organisations on page 12.

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This resource is provided for information only and individual advice on infant feeding should always be sought from appropriate health professionals.

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What is in breastmilk?

Breastmilk is uniquely suited to a human baby. Its nutritional composition and the many special 'bioactive' factors it contains have allowed human populations to survive and develop for many generations.

It is impossible to make a substitute for breastmilk as its composition is dynamic – that means it is a living substance, that changes in composition during feeds and as babies grow and develop. It is unique to each mum for her baby and for the environment in which they live. There are many hundreds of bioactive molecules in human milk that cannot be reproduced. Most of these protect babies from infections and help them develop a strong immune system for the future.

Breastmilk contains all the fluid, energy and nutrients your baby needs in the first months of life, as well as many important factors you may have heard about that are unique to human milk. These include:

- immunoglobulins and anti-infective agents that protect the infant from infections
- lactoferrin – a protein that helps babies absorb nutrients and has strong anti-bacterial properties
- special fatty acids which promote growth and development, and
- anti-viral factors, anti-bacterial substances and living white blood cells to offer protection against disease.

Did you know?

The milk produced in the first few days after a baby is born is called colostrum. This is produced in small amounts but is packed with all the important factors to prevent infection and to boost development in the first few days of life. The main purpose of colostrum is to protect the baby when he or she is most vulnerable.

From about three days to two weeks after the birth, mum's milk will change again as the baby is growing rapidly, and the milk becomes the mature breastmilk that will support your baby throughout the first year of life and beyond.

Why does breastfeeding matter?

Breastfeeding is one of the most important things that a mother can do for her baby's health and for her own health, and is the normal way to feed a baby.

Breastmilk costs a lot less than formula feeding, it is environmentally sustainable and is safely available, at the right temperature, whenever and wherever a baby is ready for a feed. You never need to worry about running out because, as your baby feeds, your body is busy making more milk. If someone invented a product that had all the amazing health benefits of breastmilk, it would sell at a very high price – yet we frequently waste what is a valuable and unique resource.

Good for baby

Breastmilk is the natural food for a baby and provides the baby with complete nutrition. The composition of breastmilk alters to meet the changing needs of babies, whether that be during the day or over a period of time. Breastmilk has the unique capacity to respond to an infant's immediate environment, providing active immunity from micro-organisms and pathogens, and this is enhanced by mothers and babies keeping in close contact with one another during breastfeeds. Women report that breastfeeding can help build a strong bond between a mother and her baby, and many take immense satisfaction from seeing their baby grow and develop, knowing that they have been personally responsible.

Breastfeeding has many advantages for babies:

- Breastfed babies are less likely to get gastrointestinal infections leading to diarrhoea and potentially to dehydration. This is one of the most common reasons a baby ends up in hospital in the first year of life.
- Other infections – such as respiratory infections, ear infections and urinary tract infections – are all less common in breastfed babies.
- Long-term conditions such as overweight and obesity, coeliac disease, cardiovascular disease and type 1 diabetes are less common in later life in babies who were breastfed.
- Many other conditions have also been shown to be less common in breastfed babies, such as: sudden infant death syndrome (SIDS); allergic diseases such as asthma and eczema; leukaemia; and constipation
- It is difficult to measure what influence breastfeeding has on the development and learning of children as lots of factors influence this, but some studies show that, even after taking lots of other family variables into consideration, breastfed babies do better overall.

Good for mum

Breastfeeding also benefits a mother's health.

- Breastfeeding mothers have a lower risk of:
 - breast cancer
 - ovarian cancer
 - diabetes, and
 - hip fractures.
- Mothers who breastfeed have better bone mineral density in later life.
- Mums are also more likely to get back to their pre-pregnancy weight if they exclusively breastfeed for 3-4 months and more.

Good for everyone

There are also financial benefits to the family, as well as benefits to the environment, when a woman chooses to breastfeed.

- The dairy industry which supplies the cows' milk protein and lactose used to make most infant formula is a major contributor to global gas emissions, and climate change, worldwide.
- Making infant formula in factories requires a considerable use of natural resources and energy.
- Breastmilk needs no packaging.
- Breastfeeding requires no bottles or teats.
- No heat energy is needed to make up breastmilk or wash feeding equipment.
- Breastmilk leaves no waste.
- Formula feeding a baby in their first year is likely to cost at least £40 a month – money which could be spent on healthy food for the whole family.

Breastmilk is the ultimate sustainable foodstuff!



Breastfeeding

In the UK, it is recommended that women exclusively breastfeed their babies for the first six months of life, and after that, alongside appropriate complementary foods, for as long as they wish to do so. However, any breastfeeding that mums can do is a good thing, and every day counts when it comes to breastfeeding.

Every drop counts

Offering babies any breastmilk at all will benefit baby and mum. Obviously if you exclusively breastfeed you get all the benefits, but if it's possible for you to breastfeed once or twice a day rather than stopping completely, ask for advice on how to manage this successfully. If you keep some breastfeeding going, you can increase breastfeeding later on if you want to.

Some mums find that after the first few weeks they have more energy and really want to give exclusive breastfeeding a go, even if they couldn't manage this straight after the birth. Any breastmilk you give your baby, at any stage, is beneficial to your baby, to you and your family and to the environment.

Can I breastfeed?

Virtually all women can breastfeed, and a woman's capacity to breastfeed is not affected by:

- her age
- her body shape or size
- her ethnicity
- her breast size
- the climate, or
- any experiences her mother or another relative may have had previously.

To breastfeed successfully you need at least one functioning breast and a willingness to allow nature to do its work by letting your baby suckle and stimulate milk production. That is it. Women can still breastfeed when they have had breast implants, when they are pregnant with another baby, if they have flat nipples, if they are diabetic, have a disability, or have had a nipple piercing. If you are at all worried about whether you can breastfeed, talk to a midwife or breastfeeding counsellor. If you have any health condition, you will be given advice on whether there are any specific additional things you need to do when breastfeeding.

Having confidence about breastfeeding

No-one ever suggests to a pregnant woman that *'You might not be able to produce a baby,'* but it is not at all uncommon to hear people say *'What if I can't breastfeed?'* Making a baby is a lot more complex than making milk!

Having confidence that you can successfully produce enough milk for your baby is really important, and the more you know about how your body provides the milk your baby needs, hopefully the more confident you will feel. All over the world, women successfully feed their babies, and in many countries most women choose to breastfeed for the first six months and then for many months and years after that.

There has been a long history of women being made to feel that breastfeeding may not be possible for them. But think about what your body does to produce a baby – totally amazing! Making milk does not seem a particularly impossible task when you look at your baby and realise what you have just made.

Many decades of advertising by infant formula companies have knocked women's confidence about breastfeeding, and have given the impression that formula milk can be 'close to breastmilk'. Formula milk is, on the whole, safe and nutritionally adequate for a baby, but you cannot reproduce breastmilk as it is a living substance, unique to every mum for her baby.



A brief guide to breastfeeding and breastmilk

Below we give a very brief and simple guide to breastmilk production to give you some confidence about how your body is specifically designed to feed your baby. For other sources of information about breastfeeding, see page 12.

While you are pregnant

During pregnancy, your breasts are preparing for their role in feeding the baby when it arrives. From about half way through your pregnancy, your breasts will increase in size and will start producing colostrum in the tiny cells inside the breasts. The hormone progesterone produced during pregnancy suppresses milk production until the baby is born.

As soon as you give birth

Progesterone levels drop when the baby is born, allowing the milk-producing hormone prolactin to stimulate milk production.

As soon as your baby starts to feed

Your body produces another special hormone called oxytocin which sends messages to the cells in the breast to 'let down' the milk.

In the first few days

Your baby will receive colostrum, a rich mixture including proteins, vitamins, antibodies and anti-infective agents.

The more frequently you feed

Breastmilk works on a supply and demand system: the more your baby (or babies) suckle, the more hormones are sent to stimulate milk production. You will make enough milk for your baby if you let him or her suckle frequently. The more milk that is removed from the breasts, the more milk your body will make.

In the first few weeks

You and your baby are getting to know each other and develop a pattern of feeds. Babies may want to suckle very frequently day and night and that is perfectly normal. Babies have a tiny tummy at birth (the size of a cherry), which grows to the size of an egg at two to three weeks. So of course they need to eat little and often.

During each feed

The composition of the milk will change to ensure your baby gets exactly the right amount of fluid and nutrients he or she needs. Each woman's breastmilk is uniquely suited to her baby, in its own environment.

As time goes on

You and your baby will develop a routine that is right for you both. You will find that you produce milk at exactly the times your baby wants it. As your baby gets bigger during the first six months, your milk will adapt to produce all the food and fluid he or she needs.

For as long as you want to

As long as your baby carries on suckling, you will carry on producing milk. The benefits remain for baby and mum throughout. It is entirely up to mum and baby how long they carry on, and there are always benefits for as long as you breastfeed.

Getting started

Nearly all women can breastfeed very successfully, but almost everyone needs support when they are starting out. Making sure you have someone to help you get the positioning right is essential in the early days, and having someone who can answer your questions and encourage you, have been shown to be really important. Don't be shy about asking for help or advice in the early days. There is no need to struggle on your own.

Every breastfeeding peer supporter has been through the first stages of breastfeeding and will know how it all feels at first, but will also want you to succeed as they know the great rewards that can be had from breastfeeding. Midwives, breastfeeding counsellors and lactation consultants have had detailed training in how to support breastfeeding mums.

In your local area you can usually access information about breastfeeding support from your local midwives or health visitors. There are also national helplines you can call (see below), and organisations that offer individual support around breastfeeding through accredited breastfeeding counsellors (see page 12).



Helplines that support breastfeeding mothers

National Breastfeeding Helpline

0300 100 0212

www.nationalbreastfeedinghelpline.org.uk

Association of Breastfeeding Mothers

0300 330 5453

www.abm.me.uk

The Breastfeeding Network

0300 100 0210

Bengali and Sylheti: 0300 456 2421

Tamil, Telegu and Hindi: 0300 330 5469

www.breastfeedingnetwork.org.uk

La Leche League GB

0845 120 2918

www.laleche.org.uk

NCT

0300 330 0771

www.nct.org.uk

Drugs in Breastmilk Helpline

0844 412 4665

Where and when can I breastfeed in the UK?

Breastfeeding women are protected by law to breastfeed their babies wherever they want or need to throughout the UK, because of the Equality Act, 2010. In Scotland the law goes further and says “it is an offence deliberately to prevent or stop a person in charge of a child from feeding milk to that child in a public place or on licensed premises”.

Many places actively welcome breastfeeding mums and in most cases few people will even notice when a baby is peacefully enjoying a feed. Many libraries, cafés and museums demonstrate their commitment to offer a welcoming environment for breastfeeding mums by signing up to a ‘Breastfeeding welcome’ scheme. Look for the signs and find out more at www.breastfeedingwelcomescheme.org.uk



All new mums should eat well

Breastfeeding women need to eat well to meet their own energy and nutrient needs, and in some cases to prepare their bodies for any future pregnancies. However, human beings are very efficient during pregnancy and when supporting a new baby their body will absorb nutrients from food more efficiently, to ensure breastmilk is still produced even if a mum’s diet is poor. Of course, we want mums to be well nourished too, but remember that, even if you have not been eating well, it is important to carry on breastfeeding.

You can find out more about eating well in our resource *Eating well for new mums*.



Breastfeeding mums should take a vitamin D supplement

Vitamin D is very important for bone health for mothers and babies. Vitamin D comes from the sun activating vitamin D in skin but, due to the UK's northerly latitude, this only takes place during the summer months. In the UK, all women who are pregnant and breastfeeding are recommended to take a daily vitamin D supplement. This is especially important for:

- women who have darker skin
- women who rarely go outside
- women who cover their skin with clothing or sunscreen
- teenagers and younger women, and
- women who do not eat animal products or have a restricted or poor diet.

How much vitamin D do I need to take, and where can I get the supplements?

If you're eligible for Healthy Start, you can get free Healthy Start vitamins until your child is 1 year old. (See www.healthystart.nhs.uk for information about Healthy Start.) Healthy Start vitamins contain 10 micrograms of vitamin D, as well as folic acid and vitamin C. They are suitable for breastfeeding women. They are suitable for vegetarians, but not for vegans.

You can buy vitamin D supplements cheaply at a pharmacy or supermarket and should look for those that offer between 10 micrograms (400 IU) and 25 micrograms (1,000 IU) per tablet.

If you follow a vegan diet, you will need to use a non-animal sourced vitamin D supplement such as:

- Veg1 supplement – available from the Vegan Society, or
- Vitashine vitamin D supplement – available from pharmacists.

For lots more information and support

Association of Breastfeeding Mothers

T: 08444 122 948
Helpline: 0300 330 5453
E: info@abm.me.uk
www.abm.me.uk

This charity offers extensive support to parents around breastfeeding and a range of factsheets and resources as well as a helpline. Information is available on a wide range of topics such as expressing breastmilk, breastfeeding twins, breastfeeding older children, and the roles of parents and grandparents.

The Baby Café

www.thebabycafe.org

Coordinates a network of breastfeeding drop-in centres and other services to support breastfeeding mothers.

Best Beginnings

T: 020 7443 7895
E: info@bestbeginnings.org.uk
www.bestbeginnings.org.uk

Best Beginnings is a charity working to end child health inequalities in the UK. It offers a range of advice for parents and carers in the following topic categories: Pregnant – now what? (including information on exercise, eating, and alcohol); Becoming a parent; Feeding your baby; Life with your baby; and Supporting your sick or premature baby.

Their DVD *From bump to breastfeeding*, which follows real mothers' stories, shows parents how to get started with breastfeeding and provides practical answers to common problems. It can be viewed in seven languages including Urdu, Bengali and Somali. Sections of the DVD are available as video clips from www.bestbeginnings.org.uk/fbtb. The website also has videos on: *Breastfeeding twins or more*; and *Breastfeeding your sick or pre-term baby*.

Baby Buddy is a free mobile phone app for parents and parents-to-be, covering pregnancy and the first six months after birth. It delivers personalised pregnancy and parenting information and prompts for reflection and action. The app is available to download from the App Store or Google Play.

The Breastfeeding Network

T: 0844 412 0995
Supporter line: 0300 100 0210
www.breastfeedingnetwork.org.uk

The Breastfeeding Network is a UK charity that provides evidence-based information and support for breastfeeding women and their families. It does not take funding from sources with an interest in commercial feeding.

Some useful factsheets are:

Expressing and storing breast milk
www.breastfeedingnetwork.org.uk/pdfs/BFNExpressing_and_Storing.pdf

Breastfeeding and mastitis
www.breastfeedingnetwork.org.uk/pdfs/BFN_Mastitis.pdf

How safe is ...? Alcohol, smoking, medicines and breastfeeding
www.breastfeedingnetwork.org.uk/wp-content/pdfs/BfN_how_safe_is_leaflet_2009.pdf

The Breastfeeding Network also runs the **Drugs in Breastmilk Helpline** on 0844 412 4665.

Bliss

T: 020 7378 1122
Family Support Helpline:
Freephone 0500 618 140
www.bliss.org.uk

Bliss is a special care charity which provides information about feeding babies born too soon, too small, or too sick. See their website page *Breastfeeding at* www.bliss.org.uk/help-for-families/feeding/breastfeeding

They also produce a book called *The best start – a guide to expressing and breastfeeding your premature baby*. For a full list of their publications and factsheets, see www.bliss.org.uk/order-publications

Health Scotland

Health Scotland provides information about all aspects of breastfeeding (in English, Chinese, Polish or Slovak). See:

Off to a good start: All you need to know about breastfeeding your baby
www.healthscotland.com/documents/120.aspx

Healthy Start

www.healthystart.nhs.uk

For information on breastfeeding, see www.healthystart.nhs.uk/food-and-health-tips/breast-feeding

Lactation Consultants of Great Britain

www.lcgb.org

E: info@lcgb.org

Lactation Consultants of Great Britain is the association for those with the qualification of the International Board Certified Lactation Consultant (IBCLC). It specialises in promoting, protecting and supporting breastfeeding and lactation issues. It is an affiliate member of ILCA (International Lactation Consultants Association). To find your nearest IBCLC, go to www.lcgb.org/consultants_local.html

La Leche League GB

Helpline: 0845 120 2918

www.laleche.org.uk

La Leche League GB is a support network that offers information and encouragement, mainly through mother-to-mother support, to all women who want to breastfeed their babies. It holds regular meetings, open to mothers, all over the UK. To find your nearest La Leche League breastfeeding mothers' group, go to www.laleche.org.uk/find-lll-group

There is also an excellent selection of frequently asked questions available at: www.llli.org/nb.html

Maternity Action

www.maternityaction.org.uk

Maternity Action is committed to ending inequality and improving the health and well-being of pregnant women, partners and young children from conception through to the child's early years. They also support the rights of women to breastfeed in the workplace.

National Breastfeeding Helpline

T: 0300 100 0212 (available in English and Welsh)

This helpline is run in collaboration with the Association of Breastfeeding Mothers (ABM) and the Breastfeeding Network (BfN) and is funded by the Department of Health.

NCT

T: 0844 243 6000

Helpline: 0300 33 00 700

Breastfeeding helpline: 0300 330 0771

E: enquiries@national-childbirth-trust.co.uk

www.nct.org.uk

The NCT is a UK parenting charity that offers information and support for all parents and runs a feeding helpline from 8am-midnight, 365 days a year. You will be called back if you have to leave a message. There are NCT branches running events for parents in the first 1,000 days - from when you first know you are pregnant until your baby is about 2 years old - all over the UK. Go to www.nct.org.uk/branches. A full list of their factsheets is available at: www.nct.org.uk/parenting. You can choose information targeted at babies from 0-3 months; 3-6 months; 6-9 months; 9-12 months; 12-18 months; and 18-24 months.

See also the web pages:

How long should I breastfeed?

www.nct.org.uk/parenting/how-long-should-i-breastfeed

Coping with colic

www.nct.org.uk/parenting/coping-colic

Dads and breastfeeding – common concerns

www.nct.org.uk/parenting/dads-and-breastfeeding-common-concerns

NHS Choices

www.nhs.uk

The NHS Choices website has information on all aspects of breastfeeding at www.nhs.uk/Conditions/pregnancy-and-baby

NHS Health Scotland/Scottish Executive

www.healthscotland.com

A website providing up-to-date information, resources and support for practitioners working with or supporting pregnant women and families with young children.

Public Health Agency (Northern Ireland)

Off to a good start: All you need to know about breastfeeding your baby

http://www.publichealth.hscni.net/sites/default/files/off_to_a_good_start_2_2014.pdf

What dads should know about breastfeeding

http://www.publichealth.hscni.net/sites/default/files/what_dads_should_know_2_2014.pdf

Start4Life NHS Information Service for Parents

www.nhs.uk/information-service-for-parents/pages/signup.aspx

Pregnancy and baby emails for parents-to-be and new parents, with links to films and health and well-being information.

Twins and Multiple Births Association TAMBA

www.tamba.org.uk

T: 01483 304442

TAMBA produces a leaflet called *Breastfeeding more than one*, which gives advice on managing breastfeeding for twins or triplets or more.

UNICEF UK Baby Friendly Initiative

T: 020 7375 6052

E: bf@unicef.org.uk

www.babyfriendly.org.uk

The UNICEF UK Baby Friendly Initiative website contains useful information and advice on all aspects of breastfeeding. It also provides free access to research on infant feeding including on topics such as breastfeeding and breast cancer; breastfeeding and tongue tie; and breastfeeding and allergy. See

www.unicef.org.uk/BabyFriendly/News-and-Research/Research

Off to the best start

www.unicef.org.uk/Documents/Baby_Friendly/Leaflets/4/otbs_leaflet.pdf

A downloadable booklet produced in collaboration with the Government's Start4Life campaign. It provides information about all aspects of breastfeeding, including for multiple births. Printed copies are available for free by phoning the DH Publications Orderline on 0300 123 1002.

Breastfeeding at study or work – information for employees and employers

www.unicef.org.uk/Documents/BabyFriendly/Leaflets.pdf

Welsh Assembly

Bilingual resources (in English and Welsh) on infant feeding can be accessed at www.healthchallengewales.org/infantfeeding-publications.

Bump, Baby & Beyond (In English and Welsh)

<http://www.healthchallengewales.org/sitesplus/documents/1052/BB%26B%20English%20WEB%20compressed.pdf>

A book that provides parents with support from the early stages of pregnancy, through to the early days with your baby and into the toddler years.

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