

The best start

A guide to expressing and breastfeeding
your premature baby



Bliss

for babies born too soon,
too small, too sick

With support from



Amēda

MUM INSPIRED. HOSPITAL TRUSTED.

Why give my baby breast milk?

Helps with my baby's growth

What does breast milk do?

- Protects against bacteria and viruses
- Helps protect against life-threatening gut infections
- Provides antibodies that are present in breast milk and help strengthen your baby's immune system

Who can help?

- Breastfeeding co-ordinators
- The Bliss freephone Helpline
- Other mums on the unit
- Speech and language therapists

“Looking back, I am very proud of our achievement. It was the encouragement of the midwives, NICU nurses, and other mums who got us there. Nathan had such a difficult start and I’m so pleased I was able to give him the best food possible and contribute to his recovery. The medical support in the hospital was brilliant, but milk was something only I could provide.”

Michaela, mum to Nathan, born 24 + 1 weeks

Expressing your milk

Unlike a fully-grown newborn, your premature baby will not have had time to build up energy reserves in their body. This will mean that they will need food in some form very soon after their birth and then at frequent, regular intervals.

Your baby may be too small or too sick to begin breastfeeding, but you can still give them the best start by expressing your breast milk. This can be done by hand or by using a pump. It can take time to learn this skill but with patience and some encouragement you can begin to give your baby the best start.

Breastfeeding your baby

Breastfeeding is the healthiest way to feed your baby. The time will come when your baby will be ready for you to breastfeed. Premature and sick babies get tired easily, but they enjoy your closeness and smell of your milk and gradually they will begin to take an interest and learn how to suck. It may take patience, but with encouragement and guidance, you will both master this skill. Any amount of breastfeeding has a positive effect. The longer you breastfeed, the longer the protection lasts and the greater the benefits.

Building a bond

By using close contact techniques such as skin-to-skin Kangaroo Care, you can help to build a loving bond with your baby, stimulate your milk supply and boost your immune system to produce more antibodies.

Kangaroo Care can help you feel more confident in caring for your baby and benefits your baby by making them feel calm, encouraging less crying and more deep sleep which is vital for their development. Ask the team caring for your baby to help you do this.

Express Your Love....

From the start, the love and protection you give your baby is vital for their health and wellbeing.

The health benefits from breastmilk are well documented and because you have decided to give your baby breastmilk, we wish to support your choice.

About Ameda

Ameda know how much breastfeeding matters to you and your baby. Ameda's story starts with a passion for breastfeeding.

More than 60 years ago, engineer Einar Egnell invented the first truly comfortable and effective breastpump. He also created the vacuum and cycle standards that today's lactation consultants use to assess breastpump efficiency.

Because every mum and baby is different, Ameda breastpumps are designed to be more adjustable than other hospital-grade breastpumps:

CustomControl™	Vacuum and cycles can be adjusted to your personal preference offering optimal results every time – giving you increased milk supply and reduced pumping time.
CustomFit™	7 funnel sizes to provide optimal convenience during your breastfeeding experience – giving you greater comfort and better milk flow.
HygieneKit™	Our unique anti-viral barrier keeps your breastpump clean and free from bacteria and viruses – giving you peace of mind.

Ameda breastpumps, are available as hospital-grade, single and double electric and manual models. Our hospital-grade model (Ameda Elite) is available for hire should your hospital unit not have one to loan to you. We also provide other breastfeeding accessories to make your breastfeeding experience as comfortable as possible.

Ameda 'Purely Yours' personal breastpumps with hospital technology, are available from leading breastfeeding and baby specialist retailers.

Everything Ameda offers, our breastpumps and accessories, our breastfeeding education and the support of lactation professionals, reflects our passion for breastfeeding. We know how much breastfeeding means to you and your baby.

For Ameda hospital breastpumps and breastpump rental: Central Medical Supplies Ltd Tel: 01538 399 541 www.ameda.co.uk

For Ameda personal breastpumps:
Hardenberg&Co Ltd Tel: 0845 009 1789
www.ameda.co.uk



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Introduction

While you were pregnant, you probably imagined what life would be like once your baby arrived, and how you would care for your baby. The fact that your baby has been admitted to a neonatal unit may have come as an enormous shock.

However, the good news is that you can still do many of the things you have planned. It is still possible to feed your baby your breast milk even if your baby has been born very early. Providing breast milk for your baby is your unique contribution to their care. No one else can do this and it may help you feel closer to your baby.

All newborn babies are different when it comes to feeding, whether they were born at term or prematurely. A baby's ability to breastfeed can depend on many factors, including how early the baby was born and their medical condition. For premature babies, there is usually step-by-step progress towards 'ordinary' breastfeeding.

Benefits of breast milk

Feeding your baby your breast milk

This has benefits for both you and your baby and can also encourage and develop a bond between you both.

Breast milk protects against germs

The body manufactures specialised proteins, called antibodies, to fight off infections. Mums transfer these

protective antibodies to their babies through the placenta during the last three months of pregnancy. This process is interrupted when a baby is born prematurely. For this reason, premature babies are especially vulnerable to infections. Breast milk provides antibodies that protect your baby against bacteria and viruses.

Helps your baby grow

Breast milk is extra rich in antibodies and growth factors and also provides nutrients, special fats and hormones that are important for growth and development during the crucial early months after birth.

Easy to digest

Breast milk is very easy to digest and is absorbed more easily than formula milk.

Building a bond with your baby

Being part of your baby's care is important for you and your baby. Kangaroo Care (or 'skin-to-skin') can help nurture your baby and give you more confidence in taking part in your baby's cares. Kangaroo Care holding relaxes your baby making them less anxious, cry less and experience more time in deep sleep.

This is especially beneficial when you are trying to establish breastfeeding. Once your baby is strong enough and stable, ask the team caring for them to show you how to begin Kangaroo Care. Not only does this special care

help build a bond between you, it also encourages the production of breast milk. Although your baby may be too small to breastfeed, place them close to your nipple and let them nuzzle you so they can smell and lap tiny drops of your milk. See page 8 for more information on Kangaroo Care.

Good for you too

Breastfeeding is good for your health too. It can help you regain your pre-pregnancy figure, since any extra fat stored by the body during pregnancy is used as energy to produce breast milk.

There is also some evidence that breastfeeding reduces your risk of breast cancer and ovarian cancer.

Intravenous and tube feeds

At birth, feeding may have to be delayed for a short period. If your baby has breathing complications, they may need to be fed through a drip (a device for giving fluid, drop by drop, into a vein).

If this is the case, the sooner you start to express your milk the better. As your baby continues to improve, they will gradually progress from drip feeds to breast milk, which at first is given through a tiny tube inserted through their nose or mouth and into their stomach. With supervision from the nursing staff, it may be possible for you to help with tube feeding. This can help you bond with your baby. You may have to express your milk for several

weeks until your baby grows and becomes strong enough to breastfeed.

Supplemented feeds

Sometimes, it can be difficult to express enough milk to supply all your baby's needs, especially if you have been ill during your pregnancy. In the early days, you may need to supplement (top-up) your colostrum to ensure your baby receives enough energy and fluids to get well quickly (see page 13 for more information on colostrum).

Two short-term options are to use additional breast milk donated to some hospitals by other new mums, or to use formula. Nursing and medical staff will discuss these options with you. It will only be a temporary measure, since you should soon be able to produce enough milk for all your baby's needs. Every step is taken to ensure that feeds from the hospital's breast milk 'bank' are safe for your baby. Breast milk donors are screened and donor breast milk is tested and heat-treated before use.



Kangaroo Care (skin-to-skin contact)

As soon as your baby's condition becomes stable, you may be encouraged to practise Kangaroo Care, which allows you to hold and cuddle your baby as much as possible. If appropriate, your baby will be dressed in a nappy only and will be placed on your chest, skin-to-skin, inside your clothing. It is useful to wear a loose shirt or blouse with buttons, so that the drips and monitor leads are not disturbed.

Close contact with your baby also stimulates your breasts to make more milk. So Kangaroo

Care may help to boost your milk production, especially if your baby is held near to your breast. Kangaroo Care can also stimulate your immune system to produce more antibodies. These then appear in your breast milk and help to protect your baby against infection.

In the longer term, Kangaroo Care can also help both mum and dad to feel closer to their babies and more confident caring for them.



Preparing to express or breastfeed

Why not try it and see?

Feeding your baby breast milk gives them a good start in life. If you're not sure yet about the best way to feed your baby, you could try expressing for a little while, just to see how it goes.

Support from your families and friends

For many people, breastfeeding is unknown territory. Important people in your life, your partner, your family or friends for example, may not understand how much hard work is involved in expressing milk for a sick baby, particularly after a long and tiring day. They may not know about the worries you have or the extra time you need. It might help to share this booklet with your partner so they understand what is happening and feel more involved in decisions and the care of your baby. Partners can all too easily feel helpless and left out during this time, because only the mum can produce breast milk. It is worthwhile talking through these feelings with your partner and family and reminding them how much you and the baby really need them. They can become involved and support you in many ways; for example, by setting up your equipment before expressing or sterilising the equipment afterwards.

Having some privacy

Many women value privacy while expressing their milk. Ask your partner, friends or family to help you out with

other tasks, such as making a meal. Milk expression takes up a lot of your time, and added stresses can make it more difficult and frustrating. Try to tell your partner what you need them to do to ensure that your expression sessions are as calm and productive as possible.

Looking after yourself

Rest and sleep

This may be a stressful time, but it is important to look after yourself and keep your own strength up. Make sure you take sufficient rest and sleep so you have the energy to look after your baby. Expressing milk (discussed on page 12) is also easier when you are well rested.

If you look after yourself, your body will do a more efficient job of producing milk.

Diet

During breastfeeding, mums need a healthy diet to provide for their own needs as well as those of their baby. When you were pregnant, soft unpasteurised cheese and liver were 'off limits', but now that your baby has been born, it is safe to eat these foods while breastfeeding. There is no need to avoid spicy foods. Try to eat regular meals – including breakfast, a snack meal and a main meal – each day.

Milk and dairy products provide protein, calcium and vitamins. Fruit and vegetables provide vitamins and help your body take in iron from your

diet. Bread, potatoes and cereals have energy, fibre and vitamins. Meat, fish and vegetarian alternatives (such as beans, pulses, high-protein grains and soya) provide protein and iron.

Try to include at least one helping of oily fish a week, such as fresh, smoked or tinned mackerel, salmon, herring or sardines. Tuna is also nutritious, but is best fresh. Oily fish will boost the level of a special group of fats, called long-chain polyunsaturated fatty acids, in your milk. These fats are thought to contribute to your baby's long-term growth and development.

Drinking

Whilst it is unlikely that having an occasional drink while breastfeeding will harm you or your baby, alcohol does pass through to the baby in your breast milk. As such, it is advisable to keep your

drinking within the limits recommended for pregnant women. That is, no more than one or two units a week.

If you regularly drink more than this amount:

- Your milk may smell different and put your baby off feeding
- The alcohol may make your baby too sleepy to feed
- Your baby may have difficulties with digestion and problems with sleeping patterns.

Extra alcohol of any type will not improve your milk production and may actually reduce it.

Smoking

This is an opportunity to stop smoking. Reducing the number of cigarettes you smoke each day may help, if stopping altogether seems too stressful. Your milk will contain nicotine if you smoke. Smoking may also slow down the flow of your milk and make it more difficult to express. Exposing your baby to second-hand smoke can also greatly increase their risk of chest infections.

It is extremely important not to smoke directly before you express breast milk. Nicotine levels increase in breast milk immediately after





smoking, and the nicotine will remain in your milk for about 95 minutes.

If you feel you can't stop smoking right now, it is a good idea to breastfeed anyway. The health benefits of breast milk are so great that they outweigh the risks of exposing your baby to nicotine.

For help and advice to stop smoking, try the NHS Smoking Helpline on 0800 169 0 169 or visit www.gosmokefree.co.uk

Medication

Avoid taking drugs or medicine, including herbal remedies, without advice from your doctor or pharmacist.

Remember to tell health professionals that you are breastfeeding when they are recommending any medication for you. If you discuss birth control with your doctor, remember to mention that you are breastfeeding as this may affect the method you choose.

Expressing your milk

Your baby may not be ready to feed directly from the breast straight away. So while they are getting stronger, you can pump the milk from your breasts using a technique called expressing.

Expressing breast milk is a skill that can take time to learn, and the staff looking after your baby will give you positive support and practical help with this. It is important to start expressing your milk frequently as soon as possible after the birth of your baby.

Only a small amount of milk is produced in the first few days after a baby is born. This is perfectly normal. Later on, the amount of milk you express may change depending on the time of day and how you feel. Expressing can feel like a big pressure and it is important to remember that no matter how much or little you are able to express, your baby will benefit.

Breast milk changes over time. During the time that you spend expressing your milk, you will notice many changes in its flow, colour and consistency. One mum's breast milk may look very different to another's, but don't worry,

this does not mean that your milk is any better or worse, just different.

In the early days, if you are expressing colostrum, you may only obtain a few drops. Gradually, over the following few days, the volume will improve and expressing should get easier. Try to remember that this stage only lasts for a few days, and that the milk will flow more freely as the volume improves.

You may notice that your breasts have not changed much since you gave birth. This is because your more mature breast milk comes after three or four days. When your milk comes in, it is a gradual process, and you will notice your breasts feeling tender and getting fuller.

Some mums of premature babies can take a little extra time to establish a milk supply. During the last stages of pregnancy, hormones prepare the breasts to start producing milk, and this process may have been cut short if your baby was born early. You will eventually 'catch up', so don't lose heart, and do ask for support from breastfeeding experts who are there to help you.

"My son, Nathan, was very sick and not expected to live. Despite this, a very brave midwife asked me if I was intending to breastfeed, and showed me how to express milk. If she hadn't made that suggestion then that would have been the end of my breastfeeding story."

Michaela, mum to Nathan, born 24+1 weeks

Colostrum (first milk)

All mums produce a special first milk, called colostrum, in the first three or four days after delivery. Colostrum is thicker than breast milk and yellow in colour. It contains a rich mix of proteins, including antibodies, that help to protect a newborn against infection.

How often to express

It is best to express milk eight to ten times in 24 hours and to try to avoid leaving gaps of more than three hours during the day. At night, try not to leave a gap longer than five to six hours. This pattern will ensure that you maintain a milk supply that will satisfy your baby's needs. The more you can express the better. Later on, you may be able to express less often, depending on how much milk you are producing.

Obviously this can be very tiring and you may feel that expressing is adding extra pressure to an overwhelming and stressful situation. Try to give yourself as much time as possible to relax, try to establish a routine and allow time for preparation before you begin expressing. Your body may respond to certain things you do, leading to expression by triggering your milk ejection reflex.

The milk ejection reflex

Each time you express milk or sit down to breastfeed your baby, you may notice a sensation in your breasts called the 'milk ejection'

reflex. In the early days, this takes a few minutes to appear, but later on it will occur within a few seconds.

Milk ejection feels different to different women. You may have tingling or prickling in your breasts and nipples, or a feeling as if the milk is rushing in to fill them. Some mums describe a slight pain and some mums have no sensations at all but notice that milk starts to drip from both breasts.

Methods of expressing milk

There are various options available to help you express your milk – from the high tech to the very basic. You may wish to use a combination of methods to suit your needs:

- Electric pumps – Hospital-grade electric breast pumps are a good choice if you will have to express for a long time. There are several types, and most can be adapted to allow single or double pumping. Electric breast pumps can be rented .
- Hand pumps – Manual or electric hand pumps are a cheaper option and are easily available. With manual hand pumps, suction is created by squeezing a handle, which can prove quite tiring after a while. The battery or mains-operated versions can save you both time and energy.
- Hand expression – This is the simplest way of expressing your milk, and it is an important skill to learn. Do ask for help if you have any questions or problems.

Breast massage technique

Gentle breast massage can help your milk to flow and make it easier to express milk. Begin by applying a warm flannel or towel to your breasts. You can stroke the area with gentle, feather-like movements (A).



Or you can massage your breast with a hand action that rolls the knuckles downwards over the breast (B), beginning at the top of your breast and working towards the areola (darker-coloured skin around the nipple), gradually going over the whole breast (C).



Don't forget to include nipple stimulation. The nipple can either be rolled gently between the thumb and forefinger, or the palm of the hand can be gently moved back and forth over the tip of the nipple.

Then stroke the area under the nipple and areola with flat hands in an upward movement (D).



Massage should feel comfortable, so remember to be gentle. If it is painful, stop and ask for professional advice. It can also be helpful to ask your partner or a friend to massage your back before you express, as this can also stimulate your milk flow.

Put your feet up

Sit down and put your feet up for five minutes before you start to express your milk. Relax your arms and back, and take several slow, deep breaths. Concentrate on feeling the tension leave your body. Maybe even listen to your favourite relaxing music.

Encouraging the flow

Many mums find that having a photo of their baby to look at helps them while expressing. You could also try recording a video of your baby on your mobile phone or camera. Borrowing a cuddly toy from your baby's cot, or a piece of clothing your baby has worn, can also help the milk to flow by providing powerful memories of your baby. Warm flannels or towels placed on the breasts can help the milk to flow more easily, especially if your breasts are very full on the third and fourth days. Breast massage before and during expressing can also help to drain your breasts. This gentle action will trigger the milk ejection reflex, stimulating your milk flow. Expressing some milk by hand before using a breast pump may also help.

Everyone is different

Some mums find it very easy to express milk and they produce more milk than their baby requires; others need more time and may produce just enough to feed their babies. Don't think that you are a failure if you are finding it very

time-consuming to express. It does not mean that you will find breastfeeding equally difficult. After all, nature has equipped babies with a very efficient system of getting milk from the breast.

It may be helpful to express in short bursts. Try expressing either once an hour, over a period of eight hours in a row, for 15 minutes each session, or every two hours for about 30 minutes each session, if you can manage it. You may need to set some time aside and plan your expressing routine, especially if you have other children or other commitments. This can really help your milk flow and establish your pattern.



Getting the timing right

- It can be helpful to take one-minute breaks during pumping sessions. You can take these breaks every three or four minutes. Massaging both breasts during these rest periods may also help to make expressing more efficient.
- It is very important to express your milk regularly. At first, it's best to express at least eight to ten times within every period of 24 hours. Later on, you may be able to express less often, depending on how much milk you produce.
- Try to express first thing in the morning, ideally before there are any interruptions.
- You will need to express during the night. Your body's milk production will be boosted by night-time sessions.

If you have a large milk supply, it is very important not to limit the number of times you express or the amount of milk you remove at each expression. This is because as the bottle fills, the volume of milk in the breast goes down and the fat content gradually rises. Therefore, the milk at the end of the feed contains the highest amount of fat and it is essential that your baby receives the extra calories. Also, when you know you have a good supply of milk, it gives confidence and helps you

to relax while you express. If you have a large supply of frozen breast milk that your own baby will not be able to use, it may be possible to donate your milk to a milk bank. For more information please contact the UK Association for Milk Banking www.ukamb.org

As your baby moves on to the breast

When your baby starts to establish breastfeeding, you may find it confusing knowing when to express and when to breastfeed. The tip is to continue to express so that your supply does not dwindle. It is important not to express just before a breastfeed. However, if your breasts are very full, it can be useful to express by hand briefly in order to soften your breast.





Twins and multiples

Most mums are able to produce more than enough milk for twins or triplets without any supplementation. For multiple births, you may need to use formula as well, but this will depend on your milk supply, your confidence and the amount of support you have from the people around you.

For more detailed information about breastfeeding twins and multiples, contact the Twins and Multiple Births Association (TAMBA) through their website www.tamba.org.uk

If your supply decreases

Occasionally, when mums have been expressing for several weeks, the milk supply will suddenly reduce for no apparent reason. Usually, this is just temporary. It does not necessarily mean that you are losing your milk supply. Try not to focus on the amount of milk gathered when you express, but do ensure you are expressing eight to ten times per day. Concentrate on relaxing and take practical steps to trigger milk production such as:

- Expressing with your baby nearby, or using breast massage and Kangaroo Care, are helpful ways to increase your milk supply.
- Sometimes changing the method you use to express can also help. For example, if you are double-pumping, try single-pumping with extra massage, or vice versa.
- Hand expression will give you more control over the way your milk is expressed.
- Some mums say that having a photo of their baby, or keeping an item which has their baby's smell nearby, while they are expressing will also help.

Drugs to increase milk supply

You may be advised to ask your GP to prescribe a drug to increase your milk supply. Although some mums have found this type of medication helpful, there is no firm evidence that it is effective, and it is best to avoid any unnecessary medication when breastfeeding. Therefore, we would always advise using techniques described above, such as massage and regular feeds and expression, to increase milk supply. However, this is an area where local opinion and practice vary. You will need to ask for specific advice from the doctors caring for you and your baby.

Hand expression

Hand expression is a very important skill to learn, and is a useful 'first aid' technique to drain blocked milk ducts. When milk ducts (tubes through which the milk is carried) are not emptied properly, they can become blocked and feel uncomfortable. Restoring the milk flow as soon as possible can help to prevent infection (see page 22). Hand expression will also help you to encourage your baby to feed. You can do this by expressing a few drops of milk on to the end of the nipple for them to taste while you are doing Kangaroo Care.

Getting ready

Have a clean towel ready to catch any spills. A wide-mouthed container is also essential, as milk may spurt in several directions at one time.



Be easy on yourself

You are going through so much at the moment, and it is important to relax as much as possible. Try to give yourself plenty of time to express your milk. Make sure you leave enough time for preparation, as this can become an important part of the whole expressing routine.

Technique

1. Cup your breast and feel back from the end of the nipple to where the texture of your breast feels different. Using your thumb and index finger squeeze this area – this shouldn't hurt.
2. Release the pressure and then repeat again and again, building up a rhythm. Avoid sliding your fingers over the skin. Milk should start to flow.
3. When the flow slows down, express the other breast. Keep changing the breasts until the milk stops or drips very slowly.
4. If the milk doesn't flow, try moving your fingers slightly towards the nipple or further away. Or try gentle breast massage.

Expressing your milk with a pump

Breast pumps do not pump, suck or pull milk out of the breast. The breast pump removes milk as it flows into the nipple. Therefore, you should make sure you understand fully the following guidelines about milk expression before you begin.

Getting ready

- Give yourself plenty of time to prepare the equipment and express your milk.
- Make sure you have all the bits and pieces you will need close at hand. You will need lids for the bottles, water to drink, a pen to complete the label and a table to put the bottle on whilst you disconnect from the tubing. Tips on sterilising equipment and storing breast milk can be found on page 30.
- Make sure you wash your hands before you start.

Getting comfortable

- Try to sit comfortably, with your back straight. A sturdy chair with arms can make expressing much more comfortable.
- Support your breast from underneath, with fingers flat on your ribs and the index finger



where the breast meets the ribs. This supports the breast tissue forward into the funnel.

- Make sure that the nipple is central to the funnel.
- Keep the funnel close enough to the breast to maintain a vacuum, but do not press it too firmly or the breast tissue will be squashed and the milk will not flow freely.
- Be careful not to set the suction level on an electric or battery pump too high, since this may make your nipples sore. Try increasing the vacuum on the pump slowly until it starts to feel a bit uncomfortable and then reduce it slightly. It is a good idea to make a note of the best suction level so you can use the same setting the next time you sit down to express.

- Do not try to remove the collection funnel whilst pumping since the vacuum can be strong. It can hurt if you pull away while the pump is running.
- Try gently massaging your breasts when expressing, as this can encourage milk flow (see page 14 for more information about breast massage technique).
- Use breast compression to help stimulate the milk ejection reflex, helping your milk to flow more quickly.
- When you start pumping, you might find that the funnel makes your nipple very sore.
- If this happens, it could be the wrong size for you. In this case, it is worth discussing it with your breastfeeding adviser or nurse. Larger funnels are available, which will make expressing more comfortable. Availability depends on the pump that you are using.

Helpful hint

You may find one breast produces more milk, or that one breast flows faster. This is perfectly normal and means that your baby might latch on to one breast for longer when feeding.

How to do breast compression (deep breast massage)

1. Hold your breast pump with one hand.
2. Hold the breast with the other hand, thumb on one side of the breast, finger on the other side, fairly far back from the nipple.
3. Do not roll your finger along the breast, just squeeze.
4. Do not squeeze so hard that it hurts and try not to change the shape of the nipple area (areola).
5. When the milk stops flowing, release the squeeze and wait for a short time before compressing the breast again.

Getting more milk

While expressing your milk, changing from one breast to another can help to stimulate the milk ejection reflex which can make your milk flow more quickly or come out in spurts. Carry on with one breast until the milk flow slows to the occasional drip. The amount of fat in your milk rises as the breast is emptied, so it is important not to restrict the time taken to express milk. Double-pumping/expressing from both breasts at the same time can save a lot of time.

Research has shown that double-pumping may increase your milk supply, especially if your baby is born

very early. It will also save a lot of time. Some mums can find it a bit daunting but it can be very helpful to express beside your baby's cot or incubator. Expressing close to your baby will help the milk to flow more quickly.

Helpful hint

If you are sterilising or cleaning your equipment, make sure that the inside of your funnel is thoroughly dried, as this will give better suction (see page 30 for more information on sterilising).

A comfortable bra

It may help to buy a comfortable bra, since your breasts will need extra support during this time. Many nursing bras, with openings in the cup to help you access your breasts more easily, are available on the high street from specialist baby stores.

For double pumping, wearing a halter-neck that has been adapted to hold both funnels securely may be useful, since it will free your hands while you express. Some mums find that adapting a sports bra can also work. You can do this by cutting slits along the seams in the end of the cups just large enough to ensure that the narrow point of the funnel can slip through, and ensure that the widest part of the funnel can be placed more snugly against the breast.

Underwired bras should not be worn, as they can damage the tender breast tissue and may cause blocked milk ducts, which can result in mastitis.

Getting into a routine

It will help to get into a routine for expressing as soon as possible. You may find that your milk flow responds to a fixed routine to get you ready for expressing. These can be very ordinary actions, like removing equipment from the steriliser, or putting together the pump. The sound of a breast pump or even the smell of disinfectant may trigger your breasts to release milk. The preparation time is an important part of expressing milk. Your body may learn that certain things you do leading to milk expression will trigger a milk ejection reflex, making it easier to express.

Taking care of your equipment

If you are using a breast pump for extended periods of time, it is important to maintain your machine and equipment. It is always a good idea to check the tubing and funnels, as a milky residue can slowly build up, making points of connection less snug. Making sure that equipment is extra clean after every session can reduce loss of pressure and will ensure that your milk is not contaminated by germs.

Some problems that may occur when expressing

The most common pumping problems with milk expression are sore nipples and small amounts of milk. You might find that the diagram on page 28 helps you understand some of the terms used here to describe parts of the breast.

Sore nipples

To help prevent sore nipples, make sure the funnel is the correct size. If friction is created while expressing, you may need a larger-size breast shield. Ask your nurse, midwife or lactation consultant for advice. Always apply the lowest vacuum setting that will produce milk. High vacuum won't make the milk flow any faster and may make your nipples sore.



Small amounts of milk

It is common for mums to express only small amounts of milk especially to begin with. There are many reasons for this and they can include being in a hurry, feeling stressed or under pressure, or a collection set (funnels) that are too small. Try some relaxing techniques and allow yourself enough time for milk ejection reflex to appear before using a pump.

Infections of the breast

Thrush is a yeast infection which can cause pain when expressing, and can be passed from baby to mum when breastfeeding. The symptoms are painful breasts, or a burning feeling. The nipple can also become red and shiny. If you think you have thrush, it can be easily treated. It is best to seek advice from the nurses on the neonatal unit. Both you and your baby should be treated.

Mastitis

Mastitis is a breast infection which can be caused by blocked milk ducts, but this is not always the case. It can also be caused by cracked nipples, since infection has a route to enter the breast. If you have mastitis, you may have some of the symptoms of blocked ducts (see page 23). However, mastitis also causes flu-like symptoms and a general feeling of being unwell.

It may need treating with antibiotics and therefore it is important that you consult your doctor. It is also very important not to stop expressing, as this can make the symptoms worse. Don't worry – your milk is still safe to use.

Blocked ducts

Milk travels to the nipple through tubes called ducts. Sometimes the milk ducts can become blocked. Symptoms are pain or redness in the area around the blocked duct or a hard lump in the breast.

Blocked ducts can occur when the breast is not well drained, and therefore can be more of a risk for mums who are expressing their milk.

There are many things you can do:

- Massage the affected area before and during expressing
- Use a hot towel on the affected area or take a hot shower
- Express milk with a pump
- Avoid underwired bras and tight clothing.

Engorged breasts

Sometimes the breasts become too full, hard and painful. If engorgement becomes a problem, you need to increase the number of times you express in a day and ensure that you continue to express until the milk stops dripping. Expressing more often will also lower the risk of a breast infection such as mastitis.

“After my son was born at 27 weeks, weighing only 1lb 4oz, breastfeeding was the last thing on my mind. However, I came to understand the importance of breastfeeding for my tiny son. I followed this booklet’s advice and expressed at least every three hours, even at night, to try to stimulate my milk supply. Since he came home, he has only had one minor cold and he’s also no longer on oxygen. I like to think that his good health is at least partly as a result of breastfeeding.”

Rachel, mum to Tal, born 27 weeks

Breastfeeding your baby

Eventually, the time will arrive when you can put your baby to the breast. This section of the booklet will help you prepare for that very precious moment.

First cuddles

When your baby is well enough to come out of the incubator, they may be able to be undressed and held against your skin (this is called Kangaroo Care, see page 8 for more details). The first time you hold your baby, there is no need to concentrate on feeding. Just cuddle your little one gently in your

arms and talk to them. Your baby will be comforted by the skin contact and by the sound of your voice, which they heard whilst growing in your womb.

When you do put your baby to the breast, they may not actually suck, but they will enjoy your closeness and the taste and smell of the milk expressed on to your nipple. It may be helpful to use pillows to support your back and arms, and to raise your baby so that they are level to the breast. Your baby will feel most comfortable if their head and body are in a straight line and support is given to their neck, shoulders and back.

Starting to breastfeed

Encourage your baby to enjoy being at the breast. Tiny babies love to lap milk and to catch dribbles of milk in their mouths. At the first feed, do not expect too much, since premature babies get tired easily and must gradually learn to suck.

Capturing your baby's interest

Initially, your baby may not show any interest in the breast, particularly if they are being fed every hour, since it is the feeling of hunger that will trigger a baby's demand for milk. Touching their lips and jaw gently may help. You can also express a little milk directly into their mouth.



Helpful hint

Remember to move your baby towards your breast, rather than your breast towards your baby.

Using a breast pump briefly before a feed will also make the milk flow more easily and stretch your nipple, helping the baby to latch on to the breast. Reassure them with gentle handling.

Making it easy for your baby

Try not to be discouraged if your baby appears too sleepy to feed. Placing your baby on one breast and using the breast pump at the other will help your milk to flow more easily, since you get milk ejection on both breasts at the same time. This will help your baby save energy, since all they will have to do is suck and swallow. You will need an extra pair of hands for this.

Non-nutritive sucking (NNS)

Many hospitals use this as a method of supporting and encouraging early sucking experiences in babies. This is called non-nutritive sucking, as the baby is not getting nutrition (milk) while sucking. Dummies are offered to babies to suck while they are being tube fed.

Babies can also learn to suck by practising non-nutritive sucking directly

at the breast. You can start as soon as your baby's breathing tube is removed. This method is described as 'dry' breastfeeding. This involves expressing milk which is then tube fed to your baby while your baby suckles on a drained breast. In this way, your baby will learn to associate sucking with a full stomach. When your baby can co-ordinate sucking and swallowing with breathing, you can partially express beforehand to trigger the milk ejection reflex so your baby gets the milk without too much effort. The next step is to put your baby to the breast without expressing first.

How much milk is enough?

If you have a very large milk supply it can be tempting just to remove enough milk for your breasts to feel comfortable. This is particularly tempting if you are in a hurry. If you don't remove all the available milk your milk supply can be down regulated. It is important that you drain the breast you are feeding from, as this will ensure that your baby benefits from the fat rich milk at the end of a feed (see page 16). Also remember that as your baby grows the amount of milk he will need will increase steadily.

Nipple shields

Nipple shields are made of soft silicone and fit over the nipple. They can be a useful tool when breastfeeding a premature baby with a weak suck. They

are also sometimes used as a solution for sore nipples, which can be caused by pumping too hard or using the wrong position during breastfeeding.

However, they do have drawbacks and should only be used under professional advice and as a short-term measure.

With nipple shields, the baby is not positioned directly on the breast. This means less milk may get to the baby, as it has to flow through the shield before it reaches their mouth. Since the nipple is not being stimulated directly, milk ejection may be a little more difficult to achieve. It is important to express following a breastfeed using a nipple shield to make sure that all the milk has been removed from your breast. If you are using nipple shields, you should try to persuade your baby to latch on without them after a few weeks.

Finding additional guidance

Ask your midwife or health visitor for a copy of the DVD entitled *From bump to breastfeeding*. This resource was sponsored by the Department of Health and provides step-by-step guidance about establishing breastfeeding, how to position your baby effectively and specific breastfeeding problems. The DVD is available in English, English with subtitles, sign language, Urdu, Bengali, Somali and Polish.

How will I know my baby is getting enough breast milk?

Premature babies who are getting enough to eat have at least six to eight wet nappies every 24 hours, pale urine that does not have a strong smell, and regular bowel movements. A breastfeeding baby that is feeding well should not be constipated and should pass at least two soft, yellow stools in 24 hours.

Your baby will seem content and happy after a breastfeed and grow steadily. For any specific questions, you should talk to the team caring for your baby.

How will I know my baby is hungry?

The key is listening to your baby. If they give you a hunger cue, feed them. If you offer the breast and your baby starts to feed, they must be hungry. However some premature babies don't wake when they are hungry. The desire to sleep over rides the desire to feed.

Look out particularly for:

- Rooting
- Hand to mouth movements
- Sucking movements
- Sucking on fingers and hand
- Opening of the mouth in response to touch.

Watch your baby closely while they feed, so you can be sure they are swallowing and sucking well. You may have to remind them to keep sucking and swallowing by stimulating them gently.

Do keep expressing

It is very helpful to continue pumping until your baby is able to breastfeed well, as it will help you maintain your milk production. Some babies may find it easier to develop a good sucking rhythm when their mum has a good milk production since the milk flows freely.

Long-term goals

It is worth all the effort of expressing milk and establishing breastfeeding when you see your baby growing and

developing. This is a commitment to your baby and a real benefit to both of you.

Initially, you might decide that your short-term goal is to continue breastfeeding or expressing until your baby reaches the date when they should have been born. The longer you breastfeed, the greater the benefits will be to you and your baby. However, it is your choice how long you breastfeed for. You are still doing a lot of good for your baby's health and development, even if you provide milk for just a few weeks.



Breastfeeding step-by-step



1 Start by holding your baby close to you with her nose level with your nipple.



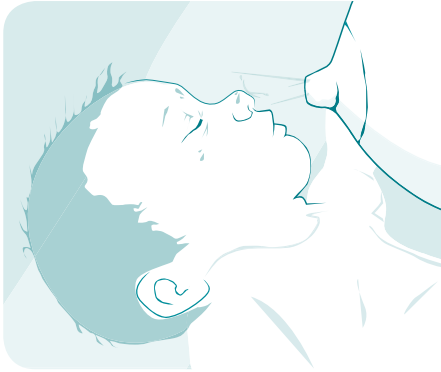
2 She'll reach towards your nipple, her mouth will open wide and you may see her putting her tongue out.



3 When her mouth opens really wide, and she will open wider if you wait a little, bring her shoulders in close so that her head tilts backwards as she comes to your breast.



4 Well latched on, her chin will be against your breast and there will be a little gap between your breast and her nose. You should be comfortable and feel no pain.



5

When she first starts to suck, your milk may begin to flow very quickly and she may come off. Don't worry about this. Just start again.

After some quicker suckling, she will slow down into a deeper slower rhythm and she should be relaxed and swallowing.



6

If it hurts, you can take her off by slipping your little finger gently into the corner of her mouth to release the suction.



7

Babies come off the breast spontaneously when they have had enough. Then you can offer the second breast if she's still awake.

Getting help to establish breastfeeding

If your baby is receiving your freshly expressed milk from a feeding bottle and you really want to establish breastfeeding after your baby has been discharged from hospital, additional support and assistance will be available from one of the breastfeeding support groups.

Sterilising your equipment

Breast milk is a complex fluid, which requires careful collection and handling.

- Always wash your hands thoroughly before collecting milk.
- Wash the milk collection attachments and bottle in warm soapy water when you have finished expressing and scrub with a bottle brush.
- In hospital; follow the hospital guidelines for sterilising.
- At home; sterilise the milk collection attachments and bottle by heat sterilisation with a steam unit or microwave kit (always follow

the manufacturer's instructions, and check that your equipment is microwave-friendly). Utensils can also be soaked in a cold water sterilising solution.

Storing milk

- Many units supply sterile disposable bottles.
- Label each container with your baby's name, date and time of collection.
- Always leave at least one centimetre of free space at the top of the milk container, as milk will expand when frozen.
- Breast milk will keep for 48 hours (unless defrosting) in a refrigerator, as long as it is not stored in the fridge door (the temperature in the door compartments goes up and down when the fridge is opened and closed).
- Milk can be deep-frozen for up to three months.



- Breast milk that has been supplemented with additives should be used immediately. It is not suitable for freezing and defrosting. Your neonatal staff will be able to manage this.
- Milk stored in a freezer with a self-defrost cycle may have a slightly soapy smell. It is not harmful to your baby. However, if it smells sour, do not use it.

Leaving hospital

Many mums feel uncertain about expressing milk on their own once they leave hospital. Here are some practical tips to make things easier. You will need your own breast pump at home.

If you need to go home before your baby is discharged from hospital, you will need to ask where you can get a breast pump. You will have got used to the pump that you used in hospital, so if it is working well for you, it may be worthwhile either buying or renting the same machine.

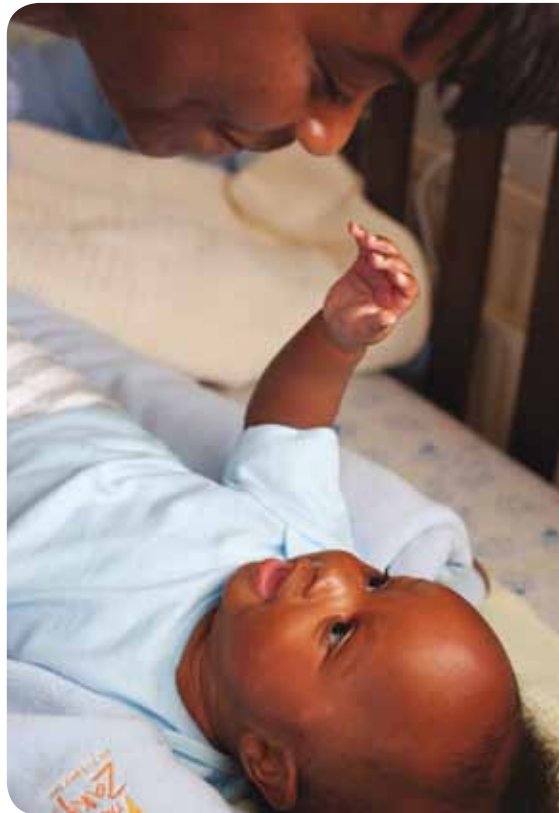
Transporting your milk

While your baby has been in hospital you might have accumulated a large supply of expressed milk. With care you can use this milk at home. An insulated cool box is useful to transport milk on your journeys to and from hospital. Don't forget to label each bottle with your name, and the time and date you expressed your milk. If the milk is defrosted, you will also need

to add the time and date when you removed the bottle from the freezer.

Breastfeeding support at home

Just because you have left hospital does not mean you must manage breastfeeding alone, with no help. Ask the staff on the neonatal unit to put you in touch with nurses in the community and with volunteer groups that support breastfeeding mums, or contact the Bliss freephone Helpline for support groups in your area.





Julie's story

My experience of breastfeeding

by Julie Ebrey

showed no signs of being ready to produce milk. The nurse gently explained to me that colostrum was the most natural thing for such a tender fragile baby like Marc to digest – and that it would prepare his

gut for when he was ready to take my milk. I was supported by a fabulous midwife through this time, who gave me great confidence and helped me to understand what a special job I was doing for my son, by giving him a good start to his very early life. Although my feelings were upside down, I started to feel secure in the care of the nursing staff and was happy for my actions to be guided by them.

I had to pump eight times a day (including during the night), to make sure that I built up my milk supply sufficiently to be able to feed Marc when, or if, he would be strong enough to feed from me. It was such a huge commitment. For the first two months of Marc's life it was very much touch and go as to whether he would even survive. Expressing my milk was the one thing that only I could do; and that made it important for me to succeed.

Our lovely baby son Marc was born at 24 weeks, weighing only 620 grams. His twin brother was born moments before but he was so poorly and sadly died.

From the moment I entered the neonatal unit, I was in complete shock. All my hopes and dreams were shattered. All I had wished for was a healthy, strong baby whom I could hold.

When I took that first look at Marc, he was hardly recognisable. Behind the coloured strands of wires and tubing lay what seemed to be our helpless little boy. The first day in the neonatal unit was scary and I was completely overwhelmed by what I saw. To top it all, I was asked by the nurse looking after Marc if I would express some colostrum for him. I thought that this was a big joke, since I did not even know if I could express – my breasts

I tube fed Marc as much as possible. It helped me to bond. I was told that my milk would adapt to suit the environment Marc was in and protect him even further. I got into the habit of expressing just before I tube fed him. I wanted to make sure he had the freshest milk possible.

When Marc was about 34 weeks gestation, we tried him on the breast. Although he only lasted moments, I had an overwhelming sense of achievement; we had reached a real milestone. He slowly continued to make progress and the hospital feeding adviser showed me some good techniques to help me feed Marc.

In time, we moved towards three hourly feeds. Together, with the neonatal staff, we worked out a schedule so that I would tube-feed him and breastfeed him at every alternative feed. During the times at night when I could not be there, the nurse cup-fed him (to help him to build on his suck, breathe, swallow coordination).

I had built up my milk supply so much through pumping, that I had a lot of milk in store. I was thrilled when

I realised that I could donate any unneeded milk to a local milk bank.

Marc continued to be exclusively breastfed until I started to wean him at eight months (from his birth date). It was important to me that he had all the protection possible from my milk. He took to solids really well and had a good appetite. Breastfed babies are used to the taste changes of breast milk (depending on what mum eats), and so adapt easily to new foods.

Marc grew well, developed nicely and enjoyed a night-time breastfeed until he was a few years old. Long-term breastfeeding is not for everyone; it's a choice you and your baby make. It takes commitment from the mum, real strength from the baby and total encouragement from everyone around.





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we campaign to ensure the needs of babies and their families are
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Bliss

**for babies born too soon,
too small, too sick**