How to Breastfeed During an Emergency

A guide for mothers

Introduction

- This booklet is written for you who want the best for your baby during an emergency situation.
- The best you can do is to give your baby only breast milk until it is 6 months old.
- After 6 months your baby can be given some boiled vegetables, fruit or porridge, but your breast milk should still be a significant source of nourishment well into the second year of life.
- If you have stopped giving your baby breast milk, or even if you have never tried to breastfeed:

Remember that it is never too late to start breastfeeding

- This booklet will help you to feed your baby safely and properly, and to get your milk back if you have stopped breastfeeding.

Setting the scene

Let us imagine an emergency situation which may perhaps be slightly likethe one you yourself are in:

- A civil war has broken out in the province of Lactograd, Ruritania. Lactograd has a population of 2 million.

- International newspapers report extensive civil unrest, massive unemployment, starvation, outbreaks of hepatitis and cholera. Many deaths from diarrhoea and undernutrition are reported.

- Traditionally Lactogradâ€™s economy has been based on mining, steel factories and heavy industry. These industries are now in a state of disrepair. Unemployment is very high and few people have enough money to survive.

- Lactograd was only 50% self-sufficient in their staple foods of wheat and corn flour before the war.

- Because Lactograd can no longer get food from neighbouring provinces food shortages are becoming more and more common.

- The drinking water is no longer safe. There is no electricity, and wood is scarce because the nearby mountains have been stripped of trees which are gradually cut down during the fuel crisis. The province is completely cut off from the coast, main highways and neighbouring provinces. All communications except for amateur radio hams have been destroyed and can not be repaired.

- Before the emergency everyone used the health care system, but now it is not even safe to move about. The health care system does not have any medical supplies anyway. Health workers feel desperate. In particular, since infant formula is not available, they feel they can do nothing for mothers with young babies who come to the clinic and tell that they have no milk or who are afraid their baby does not get enough milk from them.

- Luckily, a very old and wise family doctor still works in Lactograd. He is very experienced in helping mothers deliver babies and keep them alive and healthy. Mothers now come to him in a desperate state to ask if he has any infant formula for their babies.

- He surprises them by stating that no mother actually needs infant formula, and that now they have a wonderful opportunity to re-learn to breastfeed the way their foremothers always did.

- He reassures them that breastfeeding is the perfect way to safeguard the health of their babies during the present emergency, but, he says:

Mothers need *support* to start, maintain or re-establish lactation!

- The audience is not immediately convinced that mother's milk is best and that all mothers are able to breastfeed. So they begin to ask the old doctor for more information.

Dialogue between doctor and mothers

One mother says:

Bottle feeding with infant formula has been used for a long time in very rich countries, and it seems to be so scientific; it must surely be a superior way of feeding my baby?

The old doctor reassures her:

Infant formula is only a crude imitation of breast milk, made from cow's milk. It was actually very unsafe for babies until the 1920's. Doctors then knew little about the many wonderful properties of human milk, since no-one had studied these. Soon commercial companies saw that infant formula was a product which could earn them a lot of money, since parents always are willing to spend money on what they think is the best for their babies. Inevitably the infant formula manufacturers began to sell these new products very actively. Unfortunately they were helped in this by doctors who believed that artificial feeding was superior to breastfeeding. Also doctors found that it was easier for them to advise mothers about bottle-feeding than about breastfeeding - which they had never been taught about in their medical education.

The mother still wonders:

The health nurse told me that just last month she was fortunate enough to have some free infant formula donated by Save the Babies in Ruritania... I thought that was a very helpful gesture from the organization?

The old doctor states:

Unfortunately, even if the organisation may have meant well, the motives of the infant formula manufacturers are not so charitable. Their aim is to open new sales possibilities and to increase their share of the very competitive baby food market. One way to achieve this is to supply relief commodities to countries suffering an emergency. Through getting their product on the market with the assistance of humanitarian organizations these companies gain credibility and free advertising. They get their company's brand known, in preparation for future market opportunities, especially in former socialist countries. More often than not the products are not donated by the companies, but bought from them for donors' or even taxpayers' money.

The mother has yet another question:

The health nurse told me that very few women in Lactograd have milk - even before the war

The old doctor reflects a little:

Would you agree that most of you start to bottle-feed, not because you can not breastfeed, but because you doubt your ability to produce enough good milk for your babies? This doubt is reinforced by friends and family who ask you if you really can breastfeed. Unfortunately we in the health care system often are the first to undermine your confidence, by separating you from the baby soon after birth and telling you to look at the clock rather than at the baby in order to find out when it is hungry. We doctors are indeed at fault for not really teaching each other enough about this important subject in our medical and nursing schools.

When I was a young doctor, babies were usually born at home. The baby stayed with the mother after delivery and normally grandmother was there to teach her daughter breastfeeding - as she had learned from her mother. Modern mothers do not have such support from female family members. Instead mothers like you receive advice from well-meaning, but poorly trained health workers. Their advice may often be inappropriate, and they may be unable to tell you a lot of things you actually need to know to succeed in breastfeeding. Breastfeeding is, unfortunately, not something mothers instinctively know how to do. It is an art that has to be learned.

Another mother also wants to comment:

My doctor told me that I was tired and nervous, and that my milk really never was enough for the baby, so bottle-feeding would be a better solution for both of us?

The old doctor answers:

I am afraid this statement is not necessarily correct. But as I said, health workers have not been trained in the management of lactation. Before, when babies were born at home, there was no need for us to understand the physiology of breastfeeding. Mothers always succeeded teaching one another without our help. I have learned what I know from these mothers who gave birth at home, and from their female helpers. Today, old doctors like me, who know the tricks of the trade, could surely help train others. And some of my colleagues are, quite frankly, rather unsure of what to say to a mother who feels that she has too little milk or sore nipples. So, rather than risk saying something wrong, they recommend artificial feeding. Many have been visited by infant formula company representatives who have told them how safe and good their products are.

One mother has another problem:

I have lost weight, and I am not eating well. I am sure I will not have enough milk for my baby.

The old doctor reassures her:

It may seem strange, but you do not need to worry. Your weight loss has very little effect on your ability to breastfeed. There has been much research on this recently, which has shown that women's ability to produce enough milk for their babies is remarkably robust. Experience from extreme famines has shown that you would have to be very severely undernourished before the amount of milk is affected. In your case, the weight loss is nowhere near severe enough to affect your ability to produce milk. The human race through the centuries has survived many wars and emergencies without infant formula!

This problem preoccupies many mothers:

But we can no longer afford to buy fresh meat. Our diet consists mainly of food aid rations. Surely if we eat a diet of such poor quality we will produce milk of poor quality?

The old doctor reassures them:

Meat is not an essential part of a healthy diet. In fact vegetarians are often healthier than those who eat a lot of meat. I agree that food aid rations are not very tasty and do become monotonous in the long run. However the rations do contain the nutrients you need, and usually pregnant and lactating women get priority for supplementary feeding. The research I told you about, from for example Gambia, Bangladesh and Sudan, shows that breastfed babies grew normally even when mothers were chronically undernourished.

One mother still wonders:

My doctor told me that I am anaemic, does not this mean that my baby will be anaemic, too?

The old doctor reassures her:

During the nine months before your baby is born it is able to "stock up" on nutrients from your body, and these stores will last for some time after birth. You should try to get enough food for yourself to make up for these losses for your own sake. For this you do not need special foods. Ordinary vegetables such as carrots and turnips, and beans, peas, potatoes **and, not to forget, bread!** are good sources of vitamins, minerals and protein. Your body efficiently extracts these nutrients from your bloodstream into your milk.

One mother has a different question:

Is it true that psychological stress may dry up my milk? I have been told this so often, and I am sure that I myself am stressed in these terrible times.

The old doctor reassures her:

Some mothers surely feel that acute stress does affect breastfeeding. But the effect is only temporary: if this happens to you, do not stop breastfeeding, but put the baby to the breast even if there seems to be "no" milk. The milk is there, it is only temporarily inhibited. Keep on offering the breast, and the milk will return. Actually, giving the breast may in itself help against stress, since breastfeeding usually is comforting to you as well as to the baby.

I have sometimes been confronted with the erroneous belief that mothers who were breastfeeding before the emergency now suddenly will need breast milk substitutes. What is vital is that you continue to breastfeed and that you reject all offers of breast milk substitutes, however well meant. If you get infant formula anyway, drink it yourself, or mix it into the family food where it does no harm!

One mother starts to wonder:

Might it actually be more dangerous to feed my baby bottles during the emergency?

The old doctor confirms:

Yes, there are indeed several specific problems with artificial feeding just now. You never know when you and your babies may have to live in all kinds of temporary shelters where water and electricity supplies may be damaged. There is no guarantee of safe, clean water, or even fuel for the sterilisation which is required for safe bottle-feeding. You know that it is often difficult to get enough infant formula for your babies. Food markets collapse, and regular supplies of formula are unreliable. Some of you are not able to afford the high price of infant formula on the market because of your low income and others lack money altogether.

The advantage of breast milk is that it provides a regular, sterile supply of the highest quality food, and it costs no money. Your milk has the ability to help prevent diarrhoea and many other illnesses such as respiratory infections. Bottle-fed babies, on the other hand, are exposed to increased risk of infection, and they are not getting the protection provided by the many anti-ineffective factors in breast milk.

Many of the women are now beginning to be convinced:

This does seem to mean that our breast milk actually is superior to infant formula?

The old doctor reassures them:

Yes, most definitely. Your milk is â€œaliveâ€• whereas any infant formula will be â€œdeadâ€• . Your breastmilk contains many active ingredients which either

kill the germs and bacteria which you and your babies are continually exposed to, or it hinders them from passing into your baby's body. Also your milk contains the right type and amount of all the nutrients your baby needs, including protein. Actually the composition of your milk changes in the course of the feed. In the beginning of the feed your milk looks thin and bluish, but it supplies your baby with the necessary protein, vitamins and minerals and *water*. This means that your baby does not need extra water by bottle. During the last part of the feed, your milk looks more creamy, and it supplies your baby with fat and so provides extra *energy*.

The mothers are now quite convinced:

We believe in what you say, and we want to breastfeed, but we still do not know how to get enough milk

The old doctor pulls out a small booklet, which looks suspiciously similar to this one, and says:

Why don't you read this little booklet, which describes some of the basic principles of breastfeeding, and guidelines on what to do. If, after you have read it, you still have questions, you should ask them to a health worker who is known to be helpful, or another mother who has successfully breastfed. Breastfeeding is mainly a confidence trick, so what you most need, is to find advisers who encourage you and who know what they are talking about. You have to choose not to listen to those who say that "you will surely lose your milk" for one reason or another. Remember: All women who have given birth, will get milk. Maintaining the milk supply requires confidence and knowledge. This booklet gives the knowledge, but the confidence you must find ways to build within yourself. As time passes, the best confidence-giver will be your own success.

How to breastfeed

Experience shows that women are able to continue breastfeeding even under severe and long-lasting physiological and psychological stress. Most breastfeeding problems are due to one of the three following factors:

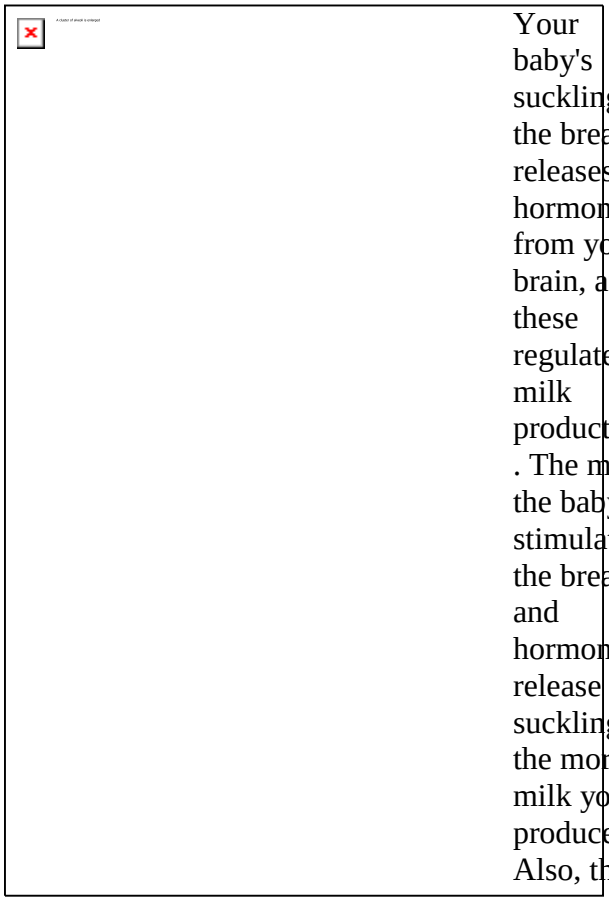
- restricted feeding of the baby,
- poor positioning of the baby,
- lack of confidence in the mother.

All of these are easy to overcome, when you know how. To know how, you need the facts presented in this book, and to be aware that even more information is available, for example from WHO and UNICEF. When you know how, you can overcome possible problems and even prevent them from happening at all!

The breast

Your breast is actually a gland, which consists of 15-25 separate, branched segments (see figure below). These are surrounded by supporting and fat tissue. Milk-producing cells line the small, balloon-like alveoli, which are small chambers of milk clustered at the end of each branch. Milk ducts lead from the alveoli to ever larger ducts which widen to milk stores, so-called "sinuses", just behind the opening to your nipple.

Milk Production



Your baby's suckling at the breast releases hormones from your brain, and these regulate milk production. The more the baby stimulates the breast and hormone release by suckling, the more milk you produce. Also, the more milk is removed from the breast, the more is produced. Conversely, if your babyâ€™s suckling is reduced,

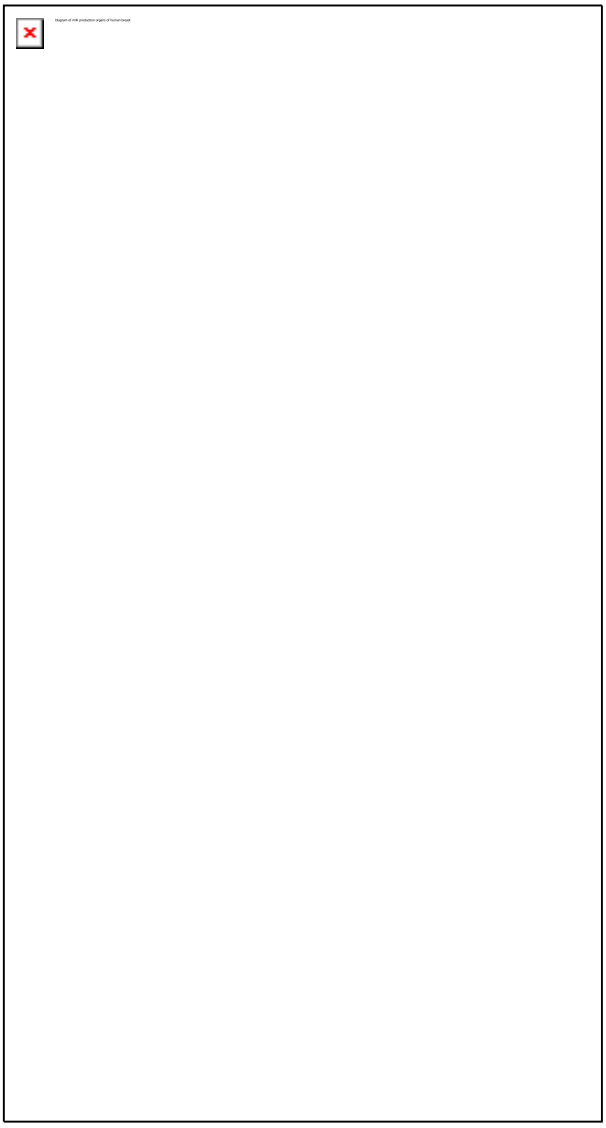


Fig. 1 The breast. A cluster of alveoli is enlarged.

your milk production also will be reduced.

This means that if you try to restrict or regulate breastfeeding to a certain number of feeds or a limited time at the breast, the message you give to your body is to produce a restricted amount, and your baby may not get the milk it actually needs. If instead the baby's appetite and needs are allowed to determine how often and for how long you feed, the milk production will adjust

to the baby's need.

Your breast is never completely "empty" of milk. Normally, your baby leaves some milk in the breast. Production goes on very intensely as the baby feeds, and continues after your baby has finished feeding. When the breast is very full of milk, and the alveoli are stretched out like little full balloons, the production of milk slows down.

The composition of your milk changes during a feed, from watery "foremilk" at the beginning to fat rich "hindmilk" at the end. The composition and amount of milk also change during the day and over the months.

How to meet the needs of your baby

- Your baby is a very special person, no two babies are alike. Babies' needs for food vary widely. As milk composition changes during the day and over time, so does babies' needs. Fortunately most babies are able to regulate what they take very precisely in accordance with what they need.

- Put your baby to your breast when it shows signs of hunger or discomfort, day or night, from the first day onwards. Some days your baby may need to feed 10-12 times in a day or more. Some days, it may only need to feed 6-8 times.

- Do *not* wait for the baby to start crying before you offer the breast.

- Be aware that if you give your baby a "pacifier" with a rubber nipple, or if you keep it tightly swaddled, it may be difficult for you to see the signs babies normally make when they are hungry. Hungry babies turn their head, wave their arms and touch their mouth with the hands, while salivating and making "sucking movements" with mouth and tongue, as if they imagine a lovely feed. They actually have many ways of telling you about their hunger - crying is only the last, desperate resort!

- Remember that breast-milk is more easily and rapidly digested than infant formula so your baby will probably need to feed more frequently at the breast than it would have done on the bottle.

- Accept that most babies also need to breastfeed at night. To make this easy, keep your baby close to your bed at night, so that you can feed it in your bed while you doze. This is not dangerous, you will instinctively be attentive to your baby in this situation. Breastfeeding makes you relax, so that you rest while you feed even if you are not fast asleep.

- Let your baby suckle your breast until it is satisfied. Do not pay any attention to the clock when you feed. Some days your baby may feed fast; other days more slowly. Your baby may feed in spurts and rest a little in between; or it may feed more steadily. You will learn to listen to the sounds your baby makes when it swallows, especially whether it is still taking milk from your breast. If your baby is well positioned (see below) it will not damage your nipples even if it is suckling frequently and for long periods.

- If your baby spontaneously lets go of your breast, make a pause. Then try to offer the same breast once more, to make sure your baby takes as much of the fat rich "hindmilk" as it needs. Then, if your baby refuses the first breast, offer the second one. If this offer, too, is refused, it means that your baby has taken what it wants.

- Offer an alternate breast first in each feeding. If your baby has a "favourite" breast this is not a problem. In fact one breast alone can produce enough milk to feed your baby. Remember that women have successfully breastfed twins and even triplets.

- Try to give your baby only breast milk and ***nothing else*** for the first six months. The milk covers all your baby's needs for food and drink for this period. Even when it is very hot, or the baby has a fever, there is *no need for extra water* if the baby gets the breast as often as it wants.

- Remember that "normal" growth in babies will include some deviation from the average both on the over- and the underside of the growth curve! In the first months â€œnormalâ€• weight gain usually varies between 500-800 grams per month. If the monthly weight gain is less than this, there is no reason to panic or to resort to infant formula. See if the baby can be coaxed to feed more often. Have an experienced woman check that the baby is well positioned at the breast, and that it feeds "efficiently" (see later).

- Be aware that babies grow in spurts. At any time, your baby may suddenly want to feed more often for some days, and your milk will increase. Babies are very good at regulating demand and supply, if they are allowed to set the pace for themselves.

The flow of milk

When your baby is suckling at your breast, this releases hormones that make your milk flow towards the milk stores behind your nipples. This is called the "let-down reflex". The mere sight or thought of your baby may start the reflex and make your milk flow. Conversely, the let-down reflex can be temporarily delayed or inhibited by worry, pain, embarrassment and other unpleasant feelings - such as those you may have during the present emergency.

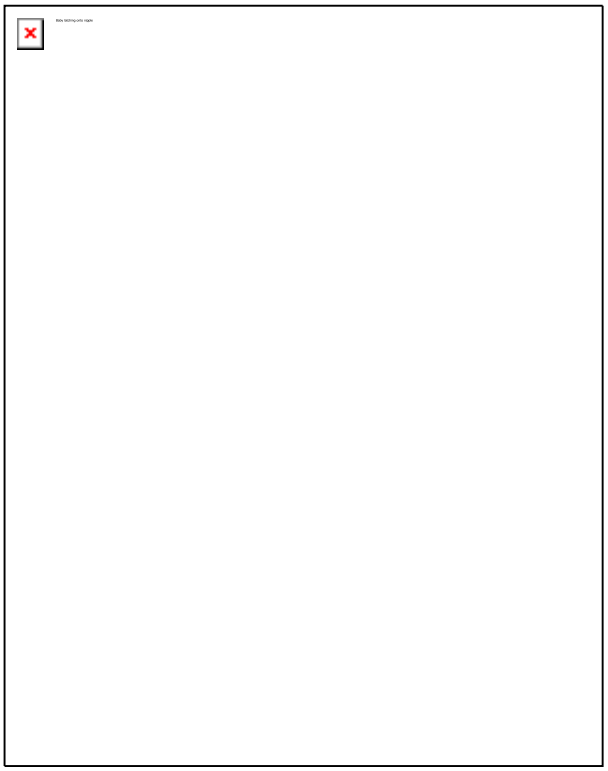
In such cases the milk flow may be interrupted temporarily, from a few minutes to several hours. Remember that this is always temporary and can always be reversed. *It is not physically possible to "lose" your milk or your ability to breastfeed.*

How to assist the flow of milk

- Keep your baby close to your breast and allow it to suckle frequently, even if you believe there is "no" milk.
- Make sure that your baby is well positioned at your breast (see details below).
- Remember that your ability to breastfeed is a strong survival feature, and that the process of making milk is a very simple and robust physiological function, also in humans.
- Make yourself comfortable before you sit or lie down for a feed.
- Make sure that you really are breastfeeding according to the guidelines in this booklet.
- If you have problems with the let-down reflex, try if possible to find out which situations you feel stimulate the milk flow and to avoid those that inhibit it.
- Remember that breastfeeding is a good anti-stress therapy for yourself and for the baby

How the baby gets the milk





The milk is not really "sucked" out of the breast, rather it is "milked" out of the milk stores (sinuses) behind the nipple. The pressure of the baby's tongue and bottom lip against

these stores, together with the inner pressure created by the let-down reflex, actually squirts the milk out. A good "milking" movement of the baby's mouth is possible only when the baby is close enough to the breast and well positioned.

Conversely, if you hold the baby too far from your body it can only reach the tip of your nipple, and just to keep the nipple inside the mouth it will have to suck

Fig. 2 How the baby takes the breast

forcefully. It may then inadvertently damage the skin on your nipple. This is the origin of most "sore nipples". Sometimes this also results in the baby getting less milk than it needs.

How to position: step by step

1 - Make yourself comfortable so that you can relax. Sit or lie in a position which makes it easy for you to keep the baby close to your breast for a considerable length of time. There are many positions, lying, sitting, squatting ... None can be labelled "correct" or wrong so long as you relax and the baby gets well to the breast.

2 - Hold your baby in a way that it does not have to turn its head to reach your breast. Who would like to eat with the head turned? This means that the baby's chest is turned to your chest, or tummy to your tummy. See to it that the baby is comfortable, too.

3 - Hold the baby so close that it does not have to tug at your breast while it is feeding. If your baby has to use its considerable suction power to keep your breast in the mouth, it is very likely to hurt your nipple.

4 - Support your baby's back, do ***not*** hold onto the head. If your baby is forced to take your breast with the back of its head locked in a firm grip, it may instinctively try to bend away, "fighting" at your breast.

5 - When you start the feed, your babyâ€™s nose should be at a level with the nipple. This means that the baby will need to tilt the head back a little to reach the nipple. You can steer the position of the baby's body by its bottom!

6 - Do not use your fingers to keep your breast away from the baby's nose. If you do this, you distort the shape of your breast and your baby may be unable to get a good hold of the breast. When well positioned, the baby breathes through the sides of its nostrils.

7 - Do not hold and move your breast as if it were a bottle. This will make it difficult for your baby to grasp your breast well. Your baby should have a good mouthful of breast so that it gets at the milk stores. If it is necessary to support your breast, do so from below, preferably with a flat hand against the ribcage. The fingers should at all times be well (say, 10 cm ...) away from the nipple.

8 - If the baby is sleepy or fussy you can focus its mind on feeding by gently stroking the cheek or mouth, or touching them with your nipple. If you milk out a drop of milk and leave it on the nipple this may awaken the appetite further. When you do this the baby will usually open its mouth, often making "milking" movements with the tongue.

9 - When you see that your baby's mouth is wide open, the tongue well down in the lower part of the mouth, the trick is to quickly pull your baby towards you, giving it a chance to "latch on". Several tries may be necessary, this is not always successful at the first attempt!

10 - If the baby was angry, hungry or crying when put to the breast, the tongue may have got on to the overside of the nipple, making the milking movement of the mouth impossible. Try to calm the baby down before you try to feed again. Some babies have periods of protest each time you try to feed. You may then have to make the baby take the breast almost without it noticing, whenever there is a good opportunity. If the baby prefers only one breast, let it have it! You may be a little lopsided, but it does no harm to the baby.

11 - Remember that it is the baby who comes to the breast, *not* the breast to the baby

Checklist for positioning

- Your babyâ€™s mouth should be wide open and the lips turned outward.
- When it is well latched on, the babyâ€™s lips and gums can effortlessly compress some of the area around the nipple (areola).
- The tongue should be in the baby's lower jaw, so that tongue and lower jaw together may make the wavelike, "milking" movement which squirts out the milk by compressing the milk stores against the palate.
- The tongue may be visible between the lips and your breast.

- Your baby suckles slowly and deeply and the movement may even extend to its ears! Swallowing can often be seen or heard.

- Because it is being held so close the baby's chin and nose may touch your breast. You need not fear that it can not breathe; babies' noses are specially designed to ensure breathing in this position. Exceptionally a baby may have difficulties, and responds by "fighting" at the breast. More often "fighting" is triggered by the baby being unable to move the head freely, for example if it is being locked in place by an adult hand.

- When the baby is well positioned and your milk is flowing, breastfeeding does *not* hurt.

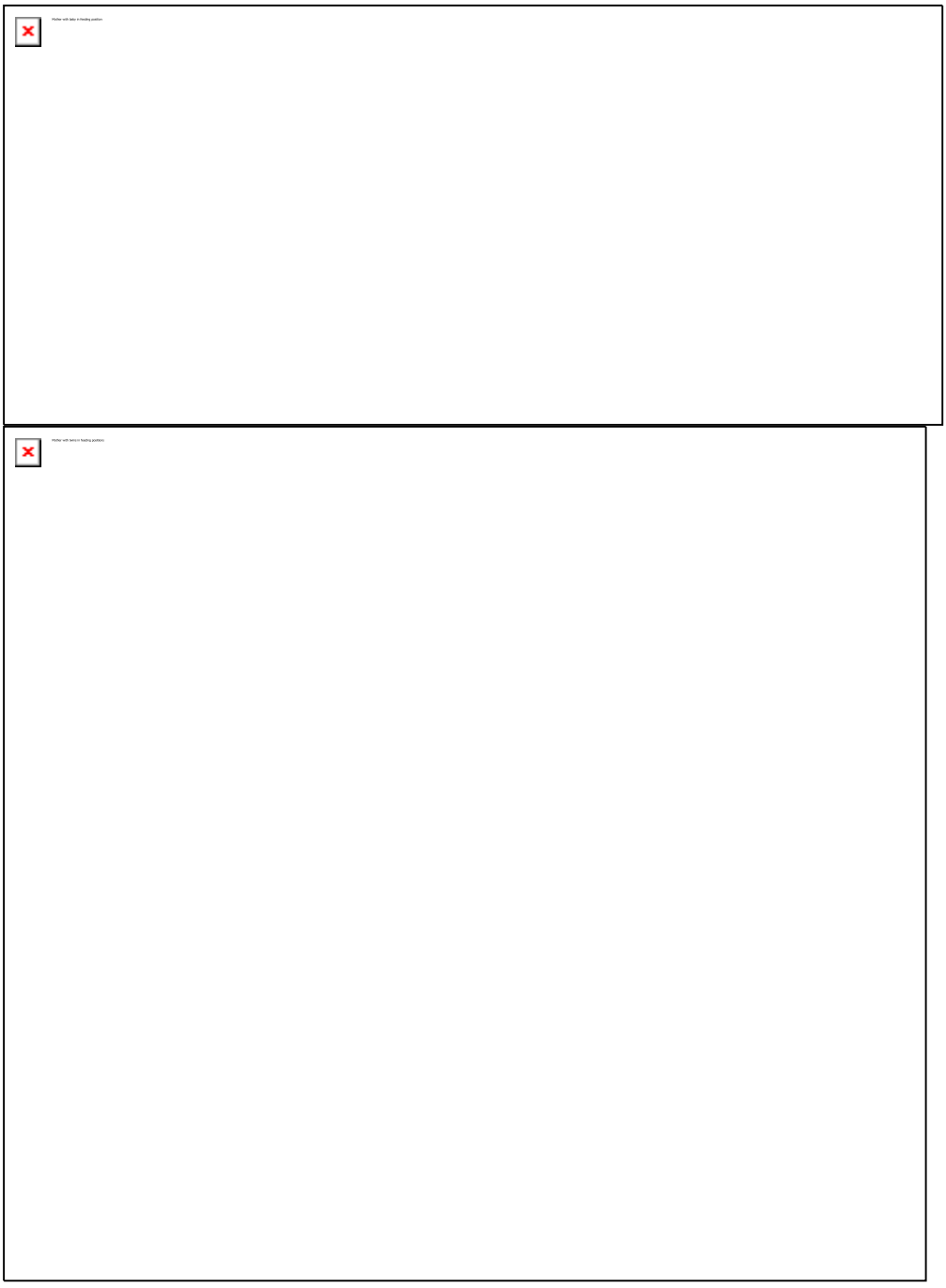


Fig. 3 Some good breastfeeding positions

How to get breastfeeding started

Ideally, your baby should have its first feed as soon as it is ready after birth. If you and your baby stay in skin-to-skin contact, from immediately after birth until the baby on its own has found the way to the breast, latched on and had its first feed, the two of you have had the best possible start.

If this was not possible, do not worry. The process of finding the breast in peace and quiet, and latching on on its own accord may be re-enacted at a later stage, even several weeks after birth, when the baby is placed naked (or with a diaper) on your warm skin and allowed to follow its own instincts. Do not expect immediate reaction, it may take some hours for your baby to remember what it was all supposed to be about.

Try always to arrange it so that you can stay together with your baby 24 hours a day from the very start. In this way you have a good chance to learn to understand the messages of your baby. This will also lower the risk of infection which could be a greater problem during an emergency.

It used to be thought that ***swaddled***babies were protected from external infections. There is no scientific evidence that this is the case. Tight swaddling makes it impossible for your baby to move and to communicate with you, and it is difficult to properly position the stiff little bundle in a comfortable way for latching on to your breast. It is preferable to wrap your baby loosely in a cotton cloth or a warm shawl, or, as a compromise, to swaddle only the lower part of the body, leaving the arms and head free to move.

Do not hesitate to keep your baby with you in bed if you think this is more comfortable. There is no risk of "smothering" your baby.

There is *no* need to wash your nipples or breasts before breastfeeding your baby. Human milk is a very efficient disinfectant. Soap, disinfectants or alcohol remove the natural skin oil and increases your risk of developing sore nipples.

Re-lactation and induced lactation

In an emergency situation there may be no infant formula available. It will then be useful to know that your region is full of women who are all potential breast milk factories. It may be hard to believe but any woman who has given birth can *re*-lactate, and *any* woman with ordinary mammary glands can induce milk production in her breasts, even if she has never been pregnant.

It is a little easier to *re*-lactate if you have already had babies, than it is to induce lactation if you have never been pregnant at all. This has both physiological and psychological reasons. If you have recently been pregnant you will usually have more milk producing gland tissue, and you can produce more milk than a woman who has not been through the process of pregnancy and gland tissue proliferation. However, the process of breastfeeding in itself stimulates gland proliferation.

How re-lactation works

When the baby starts suckling your "empty" breast, whether you are the babyÂ´s mother or not, this induces your brain to start the production of milk-producing hormones. It is possible to get exactly the same effect by hand-milking (see below). Also, if you, or the father, for that matter, gently stroke the nipple and rolls it between two fingers until it becomes erectile, for some minutes several times a day, the breasts will begin to produce milk. This does however take a little more than usual lovemaking! If a mother who prepares herself for adoption, for example, has time for such preparation, she can do this exercise at least twice a day, for example when dressing and undressing.

When the baby gets to the breast, its mouth, gums and jaws produce enough stimulus for milk production to continue or to get started, provided it is willing to take the breast.

In re-lactation it usually takes from 1-7 days for the milk to "come in", and it may take from 2-6 weeks before the mother is able to exclusively breastfeed. If lactation is to be induced it may even take a little longer.

Re-lactation: step by step

1 - Make up your mind to give it a try.

2 - See to it that you have no other pressing duties or chores which are going to take your time and attention. If you have obligations or other children to care for, try to get a friendly baby-sitter to assist you with these.

3 - See if it is possible to press out some liquid from your breast. Whatever the liquid is or looks like, the baby will like it and thrive on it. If nothing comes out, put some drops of donor milk or infant formula on the nipple. Then put your baby in a good position, as described above, and try to get it to latch on to your breast.

4 - If your baby refuses to suckle a breast from which nothing comes out, you may use a nursing supplementer as an "extra breast". This is a plastic straw leading to a bottle or cup of donated human milk or infant formula. (see figure). The straw is fastened to the breast with surgical tape, with the opening at the tip of the nipple. The flow of milk can be regulated by raising or lowering the bottle or cup, or by pinching the straw. The straw may also be tied into a loose knot which may be loosened or tightened for regulation. If you attach the straw to a syringe, you can regulate the flow by pressing the syringe pump. It may be necessary for you to have three or four hands during this procedure, so fatherly assistance, for example, is usually very welcome. Your baby may now be willing to give your breast the suckling stimulus it needs.

5 - Some babies become full too rapidly when they use the nursing supplementer, and do not stimulate your breast for long enough for your milk supply to build up. If so, you may have to be a little stingy with using the device when your own milk starts to come in. Remember it is not only the suckling stimulus which regulate your production level, but also the amount of milk removed from your breast.

6 - If this whole procedure proves difficult, do not despair. You can always use hand milking to stimulate your milk supply, and this is often the simplest and easiest way possible. Continue to offer your breast to the baby at regular or irregular intervals, 8-10 times a day.

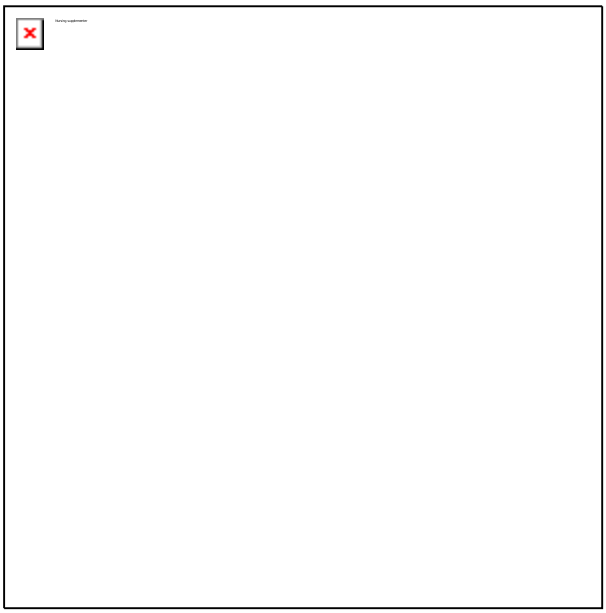


Fig. 4 The principle of the nursing supplementer

Hand expression of milk

It is always useful for you to know how to express milk. By removing the milk manually, you can keep up your milk supply for months. Some mothers even find that they produce more milk when they express by hand than when the baby milks the breast!

Expressing milk may be useful if:

1 - your baby is temporarily unable to feed,
2 - your breasts are severely engorged;
3 - your nipples are very sore;
4 - your baby is premature and temporarily too weak to suckle efficiently;
5 - for any other reason you need to stimulate milk production.Milking both breasts simultaneously, often results in higher milk production than milking one at a time.

It may be sensible to practice milking of your breasts from time to time, even when you have plenty of milk. This means that you will be prepared for any unexpected problem during the present emergency.

Hand-milking: step by step

1 - Wash a plastic or metal bowl or container well. If you are able to boil water, simply bringing it to boil will sterilise the inside of the container. A disadvantage with glass and ceramic bowls is that milk fat sticks to the sides and becomes unavailable to the baby, who loses some valuable nutrients. Using plastic containers solves the problem, the milk fat does not stick to a plastic surface.

2 - Wash your hands, and find a comfortable position (standing, sitting or lying), leaning slightly forwards.

3 - Stimulate the let-down reflex (or flow of milk) by gently massaging the breast, stroking very gently from the base of the breast towards the nipple. Manipulate the nipple between thumb and index finger. Warm compresses on the breast, including the nipple, may help relax the "sphincter" muscle around the tip of the nipple, which is normally contracted to stop the milk from dripping out. A hot bath or shower, if that luxury is available to you, may have the same effect.

4 - Place the thumb above and the index and middle fingers below the areola.

5 - Press the fingers towards the chest wall.

6 - Compress the milk stores between your fingers, and you may almost feel that the milk is pushed out through the nipple. Press and release. Press and release. Press and...release. Do this action repeatedly in order to mimic the rhythm of your baby's "milking". The interior pressure created naturally by the let-down reflex, may help your milk flow out.

7 - Be patient, no milk may come out at first. Avoid hard squeezing, pulling and pushing at the nipple or breast. This will not help the milk flow and may be harmful.

8 - Press and release continuously until the milk flow stops.

9 - Move the fingers around the areola so that all your milk stores are reached (you can use both hands in turn).

10 - Repeat the procedure from step 3, at least until both breasts are soft and comfortable.

Storage and feeding of expressed breast-milk

Expressed breast-milk must be stored in a clean, closed container in the coolest place possible. Because of its anti-bacterial properties, milk can well be kept for one day at room temperature in a shady place.

Expressed breast-milk should be given by cup. A very small, flexible plastic cup is recommended. Feeding the baby by cup has the advantage that the cup itself is

very easy to clean simply by washing it very well. The baby is not confused by having to take the milk through a rubber nipple, which requires a very different use of the facial muscles than when the breast is "milked".

Cup-feeding: step by step

1- Place the baby in a reasonably upright position on your lap.

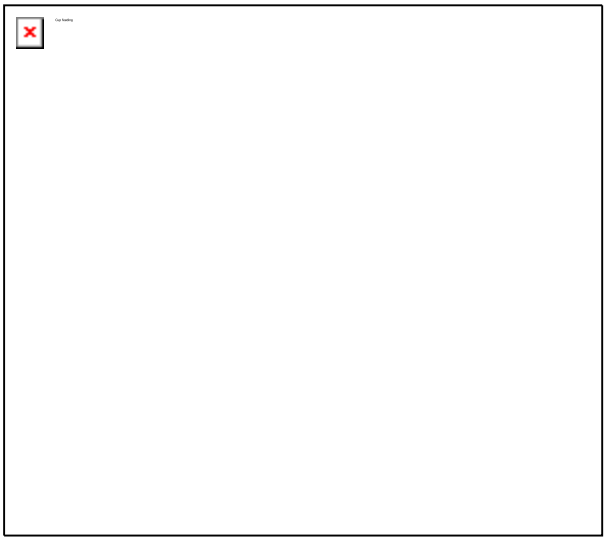
2 - If necessary, support the baby's back and neck with one arm. You may have to restrain the baby's eager arms with one hand so that the precious drops are not spilled!

3 - Place the cup at the baby's mouth, keep it level so that the milk almost touches the upper lip.

4 - Let the baby lap up the milk with the tongue (like a kitten). Do not pour the milk into the mouth, but keep it level. Let the baby set the pace. You will be surprised at how your baby finds its own technique.

5 - Be patient, try again if it does not work the first time around. It does take some time to learn to master this technique, just as it does with breastfeeding.

6 - Let the baby take as much as it wants - do not try to force-feed it. If your baby is premature or ill, it may need to rest from time to time during the feed, and you have to be prepared that the feeding procedure will take some time!



Never forget.....

breastfeeding is a confidence trick!

Fig. 5 Cup feeding