INTRODUCTION

Registered midwives in South Africa, are required by law to promote breastfeeding. Regulation 11 of the Regulations regarding the conduct of registered midwives which shall constitute improper or disgraceful conduct and the conditions under which they may carry on their profession states: A registered midwife shall promote breastfeeding unless it is contra-indicated.

We are the guardians of good health and knowing the advantages of breastfeeding we naturally encourage mothers to breastfeed.

Probably the most significant things the nurse can give a new mother is her baby and the confidence in her ability to breastfeed. Never use phrases like try to breastfeed as trying implies the possibility of failing. Talk about learning to breastfeed. If breastfeeding does not fall into place immediately it is not a failure but a step in the learning process. Breastfeeding is an art and like all arts improves with practice.

The author says: This article would not have been written had I initially been successful with breastfeeding. Being a Midwife I thought I knew how to breastfeed. I had sore nipples for a month and could not solve the problem. I gave my baby supplementary feeds and lost my milk at 4 months. I relactated with the help of a breastfeeding organisation. The hindmilk is produced as the baby feeds and averages 126 kilojoules per 30 ml. This milk is released with the let-down reflex. The level of nutrients especially fat, normally varies throughout the day as well as during a feed.

The let-down reflex

A good let-down reflex is the most important contributor to a good milk supply.

Sucking stimulates the posterior pituitary gland to produce oxytocin. The oxytocin causes the myoepithelial cells to contract and to squeeze the milk down the lactiferous ducts to the lactiferous sinus which is under the areola. The baby will extract the milk with his gums and tongue. (See illustration of the sucking mechanism in figure 1). The let-down is a conditioned reflex and when well-established can occur when the mother hears a baby crying, not necessarily her own. Some mothers will feel a tingling sensation in the breast when the let-down occurs and others feel nothing. Some mothers will have a let-down that actually sprays out whereas other mothers do not leak at all. A mother can have several let-downs in one feed. All of this is normal.

The let-down can be erratic in the early feeding days and may take up to five minutes to work. Limiting feeding times to less than five minutes can deprive the baby of the nutritious hindmilk. By frequent, unlimited feeding the let-down is conditioned.

Explain the let-down reflex to the mother. Allow her peace and privacy after showing her how to hold the baby and making her comfortable. Give her gentle words of encouragement and tell her to relax and to have faith in her ability.
The large rubber nipple strikes soft palate and displaces proper tongue action. Tongue moves forward with anterior tongue thrust against the gums to control milk overflow into oesophagus. Lips flange "O" shape — compression do not occur. Cheek muscles relax.

5. BOTTLE FEEDING

Notice how lips clamp "C" shape in nipple areolar concave junction fitting like a glove. Cheek muscles contract.

1. From ABREAST OF THE TIMES
BREAST FEEDING

Tongue thrusts forward to grasp the nipple areolar.

2.

Nipple moves against hard palate as tongue whips backward bringing the areolar into mouth. Negative pressure is created by the tongue and cheeks against the nipple suction effect is created.

3.

Gums compress areolar squeezing milk into back of throat where suction occurs against the nipple. Milk flows against the hard palate from a high pressure system to a negative pressure at back of throat.

4.
Prolactin

Prolactin is secreted by the anterior pituitary gland and stimulates the alveoli in the breast to produce milk. The levels of prolactin rise during sleep. High levels inhibit ovulation.

Prolactin levels are determined by the amount of sucking which is reduced by substitutes for the breast like bottles, dummies, solids or water. If a mother is totally breastfeeding at least 10 to 20 times a day which is normal, the ovulation is normally inhibited. With ovulation inhibited, menstruation is delayed and the mother tends to be less liable to anaemia and fatigue. Prolactin is the mothering hormone and the breastfeeding mother has the advantage with prolactin circulating in her system that mothering is easier and more enjoyable.

Oxytocin

Oxytocin is secreted by the posterior pituitary gland. Its release causes the milk to let-down. It also causes the uterus to contract and return to its pre-pregnant state.

ANTE-NATAL ADVICE TO MOTHERS

The mother should use plain water to wash her nipples. Soap and spirits cause dryness which can cause cracked nipples. A thin film of anhydrous lanolin will keep the nipple supple.

For flat or inverted nipples advise Hoffmans technique. Draw imaginary lines over the nipple in horizontal and vertical directions. Place the thumbs or the forefingers on the horizontal line and press in firmly against the breast tissue and then pull the fingers away from each other. Do the same in the lateral position in an upward and downward movement. Repeat five times in succession. This procedure breaks the adhesions and promotes the protractility.

Inverted nipples are rare. Advise the use of Woolwich breast shields which exert a pressure forcing the nipple through the central opening. They should be worn from the fourth month of pregnancy, initially for two hours in the morning and in the evening, gradually increasing the time until they can be worn all day.

The mother can start expressing colostrum at 36 weeks. This will build up her supply, unplug the ducts and condition the let-down reflex. Encourage the mother to read books about breastfeeding and tell her about the advantages of breastfeeding. Explain the let-down reflex and demand feeding. Tell her she is quite capable of feeding her baby herself. There are excellent publications that will explain breastfeeding on a mother’s level. Examples are The womanly art of breastfeeding published by La Leche League and Baby and child care handbook by Marina Petropulos.

Encourage the mother to contact a breastfeeding organisation. This will put her in contact with other breastfeeding mothers who will give her support and encouragement when she gets home.

FEEDING AFTER NORMAL DELIVERY

Ideally the baby should go straight to the breast after delivery. The baby’s sucking reflex is strongest 20 to 30 minutes after birth and declines thereafter for the following 40 hours.

Putting the baby on the breast straight after delivery:
- gets breastfeeding and bonding off to a good start
- hastens the delivery of the placenta
- leads to less haemorrhage
- alleviates transitional hypoglycaemia in the baby after birth
- aids the baby’s brain development which is fastest after birth and requires the specific fats, proteins and lactose found in human milk. It is not necessary to give glucose water.

Should a tracheo-oesophageal fistula be present, (it is rare, 1:4000) it is better that the baby have colostrum which is a physiological substance and would not damage the lungs. Giving water or glucose water could cause an aspiration pneumonia.

Feeding frequently gives the mother more relaxed opportunity to acquire and to practice the art of breastfeeding, is easier on the nipples and at the same time stimulates the milk supply and conditions the let-down reflex. The mother may experience some nipple tenderness which is a temporary phase. Limiting nursing will prolong the conditioning period and reduce the milk supply.

The mother should use both breasts for feeding. Contrary to belief it does not take 3 to 4 days for milk to come in. The more a mother feeds whilst she has colostrum, the sooner the milk will come in. The period can be from 24 hours onwards and may not be noticed at all, since a frequently feeding baby prevents engorgement.

While the mother has colostrum she could try the following method to feed. She feeds for about 5—10 minutes on the one breast and then changes sides, feeding for the same length of time on the second side. This is done in the normal lap position (see figure 2 for feeding positions). The baby is then put back to the first breast and held in the football position, that is tucking the baby’s body under the arm. This is then repeated on the second breast.

By using this method the baby can take in a good volume of colostrum. Whilst on the second side more colostrum will trickle down into the first breast. The baby drinks maximally off the ducts towards which its chin points and the football hold will drain the armpit side of the breast. Stress on the nipple is greatest where the lower gum rests so by changing the position it spreads the area of stress over a wider part of the nipple and areola. There may be nipple tenderness but no drastic sore area should develop.

Allow the mother to demand feed. In the average breastfed baby this is usually 2 to 3 hourly as breastmilk is so easily digested. The mother should not allow the baby to go longer than 3 hours during the day without a feed. One period of 5 to 6 hours is the longest the baby should be allowed to sleep at night. It is normal and acceptable to breastfeed half an hour after the previous feed.

If there is a nursery system the cot of the baby should be marked so that the baby can still be demand fed. Once the milk comes in the baby should be fed for 10 minutes on one side and for as long as the baby wants to on the other side.

Babies should not be tested. This is a misleading, meaningless and archaic procedure guaranteed to inhibit the mother’s let-down reflex and destroy her confidence.

Should the baby for some reason such as if mother is incapacitated, require a supplementary feed, this should be donor breastmilk and given with a pipette or teaspoon.
THE PREMATURE BABY

The premature baby, if strong enough to suck, is able to breastfeed. The breastmilk is easily digested by the premature baby and the milk of the mother who has had a premature baby contains more protein than that of the mother who has had a fullterm baby. The immune factors protect the premature baby from infections, diarrhoea and necrotising enteroocolitis, a serious disease that sometimes occurs in premature babies.

Feeding the premature baby

Allow the parents to see and touch the baby. Explain the advantages breastmilk has to the mother and how it can help her baby. Tell her it is possible to feed her baby. It does help to reduce the guilt and helplessness she feels.

Help the mother with the expressing of milk if the baby is being fed by naso-gastric tube. The more the mother expresses the more milk will be made, so encourage her to express 2 to 3 hourly. Use an electric breastpump if obtainable as it is easier for the mother. Encourage rest, fluids and a good diet.

The let-down may be slower starting but will improve if a routine is established.

Putting the premature baby to the breast

When first putting the baby to the breast be extremely patient with the mother and the baby. The baby may be sleepy and may have to be coaxed to learn this new procedure. Make sure the mother is comfortable. Get her to express a little before putting the baby to the breast as the baby might be confused if he/she has had a bottle. Give the mother a lot of encouragement and reassurance. She may become disheartened if the baby does not take the breast straight away. This might take a few days, he might just lick the breast or fall asleep. Allow 15 minutes between each attempt as these babies tire easily.

Ideally the breastfed premature baby should graduate straight from naso-gastric tube feeding to the breast so that he does not learn to suck on the bottle's teat and become hooked.

Premature babies may start breastfeeding slowly, for example with two feeds a day, increasing gradually. The other feeds should be given by naso-gastric tube and the mother should continue to express milk regularly. The average full term breastfed baby feeds 2 — 3 hourly so one expects a premature baby to feed more frequently.

Collection or storage of breastmilk

Sterile plastic containers should be used because some immunological components of breastmilk stick to glass. Lids must fit tightly. Ensure that the mother washes her hands before expressing.

The amount of milk expressed can fluctuate from feed to feed. The milk must be used within 24 hours so the bottle should be marked with the date and time that the milk was expressed. A small ice-box should be used for transportation.
Expressed breastmilk can be frozen for two weeks. It can be deep frozen for 12 months at -10 °C (thus in a separate freezer with own temperature control).

Tell the mother how many feeds are required so she can keep up with the demand. If the mother is unable to meet the demand use donor milk but reassure her that in time she will be able to produce enough milk.

**BREAST PROBLEMS**

**Sore nipples**

Sore nipples are inclined to occur in blonde and redheaded women but with good ante-natal care this can be reduced. The aim is to keep the areola dry and supple.

**Management of the mother with sore nipples**

Tell the mother that this will pass and give a lot of encouragement.

Check on the following:
- that the baby is correctly fixed at the breast, having the areola and nipple in his mouth.
- that the baby is being correctly removed from the breast by the mother, either by inserting a finger in the corner of the baby’s mouth or by depressing his chin to break the vacuum.
- whether the baby has thrush as this will cause sore nipples. If thrush is present report it to the doctor.

The mother with sore nipples should feed frequently. This keeps the baby topped up and discourages the rigorous sucking of a hungry baby. After the milk lets-down the pain subsides so there is no point in allowing the baby to suckle for very short periods, such as for 3 minutes, as the let-down may not have occurred yet.

Encourage the mother to breastfeed if she has a let-down between feeds, as the initial sucking before the let-down occurs is the painful part of the feed. For this reason also let the mother offer the least sore side first and allow the baby to feed for 10 minutes or so before changing to the other side. If both nipples are sore allow the mother to express to let-down before putting the baby to the breast.

Change the feeding position. This alters the pressure points on the areola. Allow the mother to sit up, lie down and use the football position to feed the baby.

Dummies may be used to satisfy the baby’s sucking needs. This should only be used as a temporary measure. The type of dummy which is shaped like a nipple once in the mouth is recommended. The use of dummies can sometimes lead to breast rejection.

Apply crushed ice in a gauze square to the nipple. This eases the pain immediately and also brings the nipple out. Use pain relievers as prescribed by the doctor.

The mother can also have her bra-flaps down to expose the nipples to air. The use of breastpads with a plastic lining must be avoided as these can cause the nipples to become soggy. Gauze squares or clean cloth hankies should be used and changed frequently.

Discourage the use of soap. Avoid alcohol and tincture of benzoin as they are too drying for the nipples. Anhydrous lanolin thinly applied after feeding will keep the areola pliable.

It is not important for the mother to clean her nipples before or after feeding as the milk has antiseptic properties and will also promote healing.

A sunlamp or ultra-violet lamp will also help heal sore nipples. The sun has wonderful healing properties. For the use of the sunlamp the mother should sit at least one metre away from the lamp and cover her eyes with her hand or a towel. Exposure is twice a day: for 1 minute on the 1st day for 2 minutes on the 2nd day for 2 minutes on the 3rd day for 3 minutes on the 4th day for 3 minutes on the 5th day.

If there is no indication of redness the mother can have the time to express her milk and feed the baby by teaspoon or pipette. Exposure is twice a day: for 1 minute on the 1st day for 2 minutes on the 2nd day for 3 minutes on the 3rd day for 4 minutes on the 4th day for 5 minutes on the 5th day.

If it occurs, engorgement is treated by frequent feeds during engorgement and hot showers before feeding followed by cold compresses after feeding to slow down the circulation. The mother can express enough to make it possible to allow the baby to grasp the areola and should change feeding positions at the breast to drain all areas.

**Stilbestrol** may be prescribed by a doctor if the engorgement is severe.

**Plugged ducts and mastitis**

**Plugged duct**

A plugged duct is a tender sore spot in the breast. It results from inadequate or irregular emptying. A plugged duct can be the start of a breast infection and must be treated promptly.

**Mastitis**

Mastitis is characterised by swollen, painful and inflamed breasts. The mother has a fever and general flu-like feeling, which in the nursing mother should be regarded as a breast infection unless proved otherwise.

Mastitis is caused by engorgement, a slow let-down reflex in the first few weeks or inadequate emptying of the breast, for example due to the bra being too tight.

The mother with mastitis needs rest and relaxation. It must be checked whether her bra is not too tight.

The baby (contrary to belief) should feed on the affected side.
Antibodies are formed in the milk to protect the baby from bacteria present. Long frequent feedings should be allowed and the feeding position changed. Heat can be applied locally.

If the mastitis has not resolved within 24 hours a doctor should prescribe an antibiotic.

**Breast abscess**

Rarely, the infection leads to a breast abscess. Contrary to general belief it is still possible to feed if there is a breast abscess. The mother may have to stop feeding from the breast for a few days if the abscess has been lanced near the nipple. She can feed from the unaffected side and express from the affected side as the milk produces antibodies that will protect the baby. A mastitis infection is more likely to progress to an abscess if the baby has not been allowed to suckle.

**THE DISADVANTAGES OF GIVING SUPPLEMENTARY BOTTLES**

Supplementary bottles immediately reduce a mother's confidence as she feels that she cannot nurture her own baby adequately. Successful breastfeeding depends on her confidence. Supplementary feeds also reduce the baby’s appetite. Milk curds from formulas are larger and more slowly digested. Baby remains satisfied for longer, suckles less frequently, thus reduces the mother’s milk supply.

The baby’s sucking action at the breast is different to when drinking from a bottle and he quickly learns to prefer the easier bottle.

Breastfed babies do not require water as the foremilk has enough water to satisfy the baby’s needs. In hot weather the mother should drink extra fluid and she should give the baby short frequent feeds.

If there is a history of allergies such as asthma, hay fever and eczema the baby should not be given formula. One bottle of formula could lead to a milk allergy by sensitising the baby to a foreign protein. If a supplementary feed has to be given use donor milk and use a pipette or teaspoon to feed the baby. Encourage the mother to feed the baby more frequently.

A mother who has been discharged from hospital and is still feeding her baby breast and bottle will almost invariably revert to bottles in the long run. The mother feels unsure of her capabilities and gives the baby more formula which in turn reduces her milk supply and it becomes a vicious cycle. More formula, less breastmilk. Dr. Niles Newton says: If you give a bottle to your new baby twice a week, simply accept the fact that your baby will be totally bottle fed by the time he is three or four months old (2 p 444)

According to the nutritional committees of the Canadian Paediatrics Society and the American Academy of Paediatrics in a commentary during the celebration of the International Year of the Child 1979: The reasons for stopping breastfeeding after the mother goes home include cracked nipples and infection or erroneous advice to adhere to a rigid three to four hour feeding schedule. Many infants cry to be fed every two to three hours during the first two weeks of life.

This can lead some mothers to feel that they have insufficient milk. If mothers resort to supplementary feeding, lactation may cease within a week or so because the development of full milk production is dependent on emptying the breasts. (13 p 7).

**MEDICO-LEGAL ASPECTS OF BREASTFEEDING**

As stated previously A registered midwife shall promote breastfeeding unless it is contra-indicated.

We must understand promote clearly. Promote means:

— to initiate or help with the progress of
— to publicize (a product) to sell it. (Oxford Universal Dictionary). We must sell breast, breastmilk and breastfeeding.

We are not promoting breastfeeding by giving supplementary bottles of formula or water. We are not promoting breastfeeding if we use methods that could cause a mother’s lactation to fail, such as rigid feeding schedules and supplementary bottles.

A contravention of this rule (in the absence of clear contra-indications) may amount to improper conduct for which a midwife may be charged in a disciplinary matter before the Nursing Council. We should be aware that a patient who is dissatisfied with the midwife’s action may lay a charge with the Council.

If we are registered with the SA Nursing Council as a midwife, no
matter what field we are in, for example, community health nursing, we are still required to promote breastfeeding.

**PROMOTION OF BREASTFEEDING IN HOSPITAL**

To promote and encourage breastfeeding in hospital we should institute the following practical measures:

— *rooming-in* is essential for bonding between mother and child, and it allows a good start to breastfeeding
— unrestricted *demand* feeding, without supplementary bottles of formula or water
— a good knowledge of breastfeeding is essential for nurses. We should be consistent in our advice. We should be up-to-date on the latest breastfeeding research and expertise and pass it on to the mother
— introduction of *lactation* nurses. Ideally it would be a nurse who has successfully breastfed. She would have an insight into the mother’s feelings and because she has successfully breastfed she would be able to give mothers the necessary encouragement
— not comparing the breastfed baby to a bottle-fed baby as their behaviour is different.

**THE MOTHER GOES HOME**

The mother should understand that the more she feeds the baby the more milk she will produce and that the more she feeds the baby the more the baby’s nutritional needs increase he stretches and dilates to contain the milk reservoirs stretch and dilate to contain the excess milk and milk production is still good.

If the mother has been busy during the day she may find that she had a low milk supply in the evening and the baby remains hungry and fussy even after a feed. She must realise that the milk is replaced in 20 — 30 minutes so she should have a nourishing snack and drink (two tablespoons of peanut butter works well!) and simply feed the baby again. The baby will appreciate the *comfy* suck and this will also increase the milk supply. There is no need to give a supplementary feed.

There is no need to start solids until the baby is ready. Breastmilk alone is the perfect food for about the first six months. There should be no fixed time for weaning the baby from the breast. Encourage the mother to continue feeding as long as she and the baby enjoy it.

Should the baby refuse the breast at home, known as a *breastfeeding strike*, the mother should contact a lactation nurse or a breastfeeding organisation for help as soon as possible. Encourage all nursing mothers to join a breastfeeding organisation support group.

**CONCLUSION**

Encouragement, expertise, knowledge and confidence of the nurse and mother will ensure a good start to breastfeeding. Let us do what is required of us by being more active in our promotion of breastfeeding. Knowledge in any field brings confidence, so let us become enlightened.

**BIBLIOGRAPHY**

**BOOKS**


**LEAFLETS AND ARTICLES**

**Nursing Mothers of Australia:**

8. Storing and using expressed breastmilk
10. *How we solve breastfeeding problems*. Ellen Hubbard RN.

**RECOMMENDED READING**

There are several excellent books for the nursing staff to read:

- Abreast of the Times Dr R.A. Applebaum.
- *Nursing your baby by Karen prior*.
- You can breastfeed your baby even in special situations by Dorothy Patricia Brewster R.N.