

Expressing for your Baby

***Prince of Wales Private Hospital
Maternity Unit***



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AN UNEXPECTED BEGINNING

The arrival of your baby a few weeks or even months before your due date can be quite a shock. Your labour and infant may not be what you expected.

Following your infant's birth, you may have had a quick glimpse of him/her before he/she was whisked off to the Special Care Nursery. The separation is hard on most women; you may feel guilty, sad and lost. Perhaps wondering if you had an infant at all. You may be worried about your infant's health and feel unprepared for an uncertain future. All of these feelings are normal. It helps to talk about your feelings with your partner, midwife, doctor and family.

It is normal for parents to feel their situation is totally out of their control. Your infant is cared for by special nurses and doctors and your visits to the Special Care Nursery may be quite daunting. Your infant may be hard to find among intravenous lines and machines. Sounds are unfamiliar. Beeps, buzzers, alarms and flashing lights may look like something from a science fiction movie.

Depending on your infant's condition he/she may be in an open crib or an enclosed heated bed called an isolette, your infant may not be able to suckle at your breast, however you can provide your infant with the best nutrition available; your own breast milk.

YOUR BREAST MILK

Research and clinical experience has shown that there are definite advantages in feeding breast milk to pre-term and term infants. Their digestive system and the enzyme system that break down protein and fats are immature and inefficient. However, the nutrients in breast milk are in a form that a premature infant can easily digest.

Your breast milk contains special cells that help protect your infant against many infections. Colostrum (the first form of milk from the breast) is especially rich in these anti-infective and inflammatory properties. This is very important to a premature infant who is more prone to infections.

Your infant will not be allergic to your milk and breast milk helps the infant's digestive system mature.

The milk of preterm women is different from milk of women who experience a full term pregnancy. Your milk will have higher amounts of protein, sodium, phosphorus, chloride and other nutrients.

Breast milk contains fats that the infant's brain needs to form and grow. Babies fed breast milk have a ready-made source of these fats. These fats also help the infant to see well. These fats are unique to your breast milk.

INITIATING AND MAINTAINING YOUR MILK SUPPLY

If your infant is not able to breast-feed right away or for a long period of time you will need to **begin expressing your milk within one hour of birth if possible, maximum within six hours of the birth** depending on how well you feel. Early initiation will encourage and maintain an adequate milk supply. Initially you may only get a few drops. It is this early stimulation that is important for maintaining a good milk supply.

A staff member will assist you in gaining the necessary skills to hand express your breast milk.

EXPRESSING, STORING AND TRANSPORTING BREASTMILK

In hand expressing you are basically trying to do what your infant's sucking does naturally, although obviously it is not the same action, so, you will be trying to trigger the let-down reflex and then

putting pressure on the ducts to cause the milk to flow out of your nipples. You may find it difficult at first, but with practice you will get better at it.



Diagram A: Hand expressing milk (Reference: NSW Health Breast Feeding Your Baby 2015)

Any sterile container can be used to express into including a spoon. The aim is to move the milk from the alveoli down the ducts to the nipple.

When the infant latches on to the breast the nipple is drawn into the back of his/her mouth and is held there by suction so that the ducts are between his/her upper and lower jaw. The action of the tongue movements expresses milk into the back of the infant's mouth.

Gently stimulate your nipples, by drawing them out or rolling them between your fingers. (Hold the nipple at the base, where it joins the areola so as not to hurt yourself). These first steps stimulate the milk let-down; milk does not always flow freely initially. Spend a few minutes gently massaging your breasts before hand expressing.

Place your fingers under your breast with your thumb on top several centimetres back from your nipple (for many women this may be the edge of the areola.) Press your thumb in slightly towards your chest wall and roll it down towards the nipple compressing the areola between thumb and fingers. Hand expressing is a compressing and rolling action.

Do not slide fingers along nipple as this may cause nipple trauma

Points to be aware of:

- Wash hands prior to handling equipment and/or expressing
- Express directly into sterilised container or use sterilised syringes
- Seal, label with date and time and addressograph label and sign the label to identify it is your milk. Hand this expressed breastmilk (EBM) to a Staff member who will also check the details are correct before they refrigerate it in the Breast Milk fridge.

The websites below are an excellent resource for demonstration of hand expressing

<http://newborns.stanford.edu/Breastfeeding/HandExpression.html>

<https://firstdroplets.com>

GUIDELINES TO EXPRESSING

These basic expressing guidelines are for women who are separated from their infant, or for women whose infant is not able to breastfeed and / or unable to feed effectively from the breast each feed. Hand expressing is the most effective method of milk removal in the first few days. Your expressing guideline may need to be individualised for you and your infant's needs.

Frequent stimulation of your breasts once your infant is born, is essential for establishing a good milk supply. The more often you stimulate your breasts through your infant feeding effectively, or you expressing to stimulate your breasts, the more milk you will make. Stimulation of your breasts should commence on the day of birth. Ideally within the first 2 hours of birth.

If hand expressing is too difficult, painful, or you really dislike hand expressing, your Midwife can arrange for you to use an electric breast pump on a low setting for stimulation. It is unlikely that you will get any milk using an electric breast pump in the first few days, but it will provide essential breast stimulation to help you establish your milk supply until your infant can feed effectively.

Your expressing times will need to be varied to fit in with your infant's feeding schedule.

Discuss this daily with the nursery staff. Do not express just before going to feed your infant, unless specifically advised to by SCN staff. If your infant needs topping up after feeds, express after each sucking feed, unless you have too much milk and your Midwife advises otherwise for that feed.

Day 1. (Day of Birth).

If skin-to-skin cuddles are possible, have cuddles then express. If your infant is in SCN/NICU and is unable to breastfeed within 1-2 hours of birth, start hand expressing as soon as possible, essentially within 1 - 6 hours after birth.

Ask your Midwife to show you and your partner how to hand express for your infant. Early frequent expressing will help you establish a good milk supply.

Hand express a minimum of 6-8 times in 24 hours.

Hand express 3 hourly during the day, and 4 hourly at night.

Express at least once between 2400hr – 0600hr. Try not to miss night expressing whenever possible. Night expression makes a big difference to your milk supply and breast comfort.

Hand express each breast for 5 minutes. If possible, try to express both breasts twice. e.g. 5 minutes - 1st breast: 5 minutes - 2nd breast: then another 5 minutes on the 1st breast, then a further 5 minutes on the 2nd breast. (5 x 5 x 5 x 5). Even if you don't express any colostrum today, breast stimulation is essential.

Day 2-3. (24-72hrs).

Whenever possible, have skin-to-skin cuddles then express.

Hands express a minimum 6-8 times in 24 hours.

Hand express 3 hourly during the day, and 4 hourly at night.

You can also start using an electric breast pump on the initiation cycle (15-minute cycle) after hand expressing, for extra stimulation. You may not get any colostrum at this stage from the pump, but it will aid in stimulating the breasts. Continue the initiation cycle until getting 20mls three times, or day 6. Then start on the maintenance cycle. Your midwife on the postnatal ward or Special Care nursery will show you how to use the pump.

It does not have to be strictly 3 hourly. Sometimes a little earlier, sometimes a little later. Express at least once between 2400hr – 0600hr. Try not to miss night expressing whenever possible. Night expression makes a difference to your milk supply, and your breast comfort once your milk is in.

Day 4 – Onwards. (72+hrs) Continue to hand express and pump until you can get more pumping than

hand expressing or when you can hand express more than 5mls from each breast. Once you can pump 20mls or greater on three occasions, or day 6 start using the maintenance cycle. Stop pumping when your infant's quota has been achieved or 15-20min each breast.

A hospital grade electric pump will be supplied by POWP while you are an in-patient. Follow protocol regarding sterilising pump equipment. If your infant is in SCN/NICU, you will be advised to dispose of the pump kits after every use; otherwise, you will need a new kit every 24 hours.

Most women prefer double pumping. Express 15-20 minutes' double pumping. Stop expressing before 15-20 min if you have reached your infant's quota.

If you prefer single pumping, 10-15min first breast, 10-15minutes second breast, then back to 1st breast again, then back to 2nd breast again. Try breast massage while pumping, this helps you to remove more of the fatty milk found at the end of the expression and increases milk volume.

Express a minimum 6-8 times in 24 hours.

Express 3 hourly during the day, and 4 hourly at night.

Express at least once between 2400hr – 0600hr. Try not to miss night expressing whenever possible.

Night expression makes a difference to your milk supply and your breast comfort as your milk comes in. Missing night expression once your milk is in can lead to rock hard painful breasts and increases your chances of mastitis in the early weeks.

If you have **too much milk**, discuss this with your Midwife in SCN, or one of the Lactation Consultants.

A different expressing schedule will be required, not to over stimulate your breasts. Shortening the length of your expression time may help. Generally, it is recommended not to express too much more than your infant's milk requirements. Your infant's quota changes daily, talk to the Midwives in SCN regarding your infant's quota. Less milk is required if your infant is having good sucking feeds. Too much milk is just as much of a problem as too little. Do not over express or miss expressing.

If you are **struggling with your milk supply** discuss your difficulties with your Midwife in SCN or one of the Lactation Consultants to see what else, we can do to help you increase your milk supply.

Please wipe down the electric expressing pump and dials after each use with the neutral detergent wipes provided

"LET DOWN"

The key to pumping milk is to get the milk to let down first, before using the pump. This shortens the pumping session and helps avoid sore nipples.

Methods to assist your "let down."

- Express in a stress free environment. Put the provided sign on your door; 'please see midwife before entering'
- Relaxation techniques (e.g. deep breathing, visual imagery, use of calming music).
- Warm compresses.
- Gentle massage.
- Visit your infant before expressing or have a photo of your infant at hand when expressing.

- Smell a singlet your infant has been wearing
- Think about how beautiful your infant is.

"KANGAROO CARE"

Skin to skin contact-Kangaroo care - where the mother holds the immature infant **skin to skin between her breasts up to four hours a day** has been associated with increased success and duration of breastfeeding - this also, enhances the "let down"(Mizuno K 2004).

STORING BREAST MILK IN HOSPITAL

- EBM should be stored in refrigerator at 4°C as soon after collection as possible
- Refrigerated EBM should ideally be used within 48hrs. Thawed milk within 24hrs
- If EBM is to be frozen it should be placed in freezer as soon as possible
- 2 weeks in freezer compartment of refrigerator
- 3 months in freezer compartment with separate door to refrigerator
- 6 months if stored in deep freezer unit.

Identification of EBM in hospital

Each infant should have an allocated area and a labelled storage basket/container for EBM stored in the refrigerator/freezer.

All EBM containers should be clearly labelled with the following

- The infant's and mother's name (computer generated)
- Infant's/mother's medical record number
- Milk type and additives if any
- Date and time of collection
- Date and time of freezing
- Date and time thawed
- Label to be signed by mother and 1 staff member

Checking EBM in hospital

For all breastfed babies correct checking procedures should be followed as per the EBM checklist MR260A

Two members of staff (Policy 7.08) or one staff member and the mother should always undertake identification of EBM and checking the infant's identification bands, including

- **Prior** to giving babies to their mother for breastfeeding
- **Prior** to storing EBM, or removing EBM from storage
- **Prior** to giving EBM to babies.

CLEANING BREASTFEEDING EQUIPMENT IN HOSPITAL

POWP currently has two different sterilising protocols. One for babies in SCN/NICU, and one for babies on the Postnatal Ward . This is because preterm and sick babies in SCN/NICU have greater needs, than healthy term babies on the Postnatal Ward. The guidelines are as follows:

ALL BABIES IN POWP SCN OR RHW NICU

Your breast milk collection kits and bottles are to be used **once only and discarded after every use**.

Equipment required at each expression of breast milk

New bottle (x2 if double pumping)

Breast pump kit (x2 if double pumping)

EBM stickers

Please wipe down pump and dials with provided neutral detergent wipes prior to using

BABIES ON POSTNATAL WARD

You will need a **new breast milk collection kit every 24 hours**.

Breast milk collection kit

- Large plastic bag
- Sticker to write date and time kit needs replacing
- Breast pump kit (pump collecting shield, valve and tube) x2 if double pumping
- Bottlebrush x1 for whole of hospital stay to be kept in a plastic bag in your room
- Add a new sterile bottle at each collection
- Label with EBM sticker, and your hospital ID sticker, your midwife will provide you with these and hand to staff to place in the locked fridge

Please wipe down pump and dials with provided neutral detergent wipes prior to using

After each expression

- **Please wipe down pump and dials after using**, with provided neutral detergent wipes
- In the Well Baby Nursery, clean the sink prior to and after cleaning your equipment
- Rinse the pump collecting shield and valve equipment, the tube does not need cleaning, firstly under cold water, then wash in warm soapy water, with the detergent liquid*, using the bottle brush to clean inside the collecting shield, and valve connections
- Rinse again in cold water
- Immediately dry your kit with a lint cloth *
- Return cleaned kit to plastic bag after each use

NIPPLE SHIELDS (NS)

- After each use, rinse in cold water and wash in warm soapy water. rinse well
- Place in a clean dry container, label when NS replacement is required
- While in hospital you will be given a new nipple shield every 24 hours. (Sterilise every 24 hours if using one at home)

When you are discharged from POWP, you will need to continue to sterilise any bottles, breast pump collection kits and nipple shields that you are using at home. The milk collection kits you purchase when you hire a hospital grade breast pump are not disposable and need to be sterilised as per product guidelines

STORING BREASTMILK			
Breastmilk Status	Room Temperature (26°C or lower)	Refrigerator (4°C or lower)	Freezer
Freshly expressed into container	When expressing for your baby in the hospital, your milk needs to be refrigerated within an hour of completing the expression. It can last up to 6 – 8 hours out of the fridge for use at home.	In hospital 48 hours and at home 3 - 5 days. Store in back of the fridge, where it is coolest.	2 weeks in freezer compartment inside refrigerator. 3 months in freezer section of refrigerator with separate door.
Previously frozen - Thawed in refrigerator but not warmed	4 hours or less – that is, the next feeding	24 hours	Do not refreeze
Previously frozen - Thawed outside refrigerator in warm water	For completion of feeding	4 hours or until next feeding	Do not refreeze
Infant has begun feeding	Only for completion of feeding	Discard	Discard

* Chest or upright manual defrost deep freezer that is opened infrequently and maintains ideal temperature

Table 1.1: Storing Breastmilk (Reference: NHMRC, Infant feeding guidelines for health professionals 2018)

Breast milk can be stored in glass or plastic containers, including sealable plastic bags. Freshly expressed milk that is being refrigerated or frozen should be stored in a new container rather than added to previously refrigerated or frozen milk. Refrigerate or freeze milk after expressing. Use fresh milk whenever possible. Freeze milk that will not be used within 2 days. Date the container at the time of collection and use the oldest milk first.

CLEANING EQUIPMENT and STERILISATION METHODS AT HOME

Boiling

Boiling is the preferred option for sterilising bottles and other infant feeding equipment. Boiling gives consistent and reliable results if the following steps are taken.

- Rinse in cold water then wash bottles, teats and caps in hot soapy water with a bottle /teat brush before sterilisation
- Place utensils, including bottles, teats and caps in a large saucepan on the backburner of the stove
- Cover all utensils with water, making sure to eliminate all air bubbles
- Bring water to the boil and boil for 5 minutes.
- Turn off – do not allow to boil dry.
- Allow the equipment to cool in the saucepan until it is hand hot and then remove the equipment.

- Store equipment that is not being used straight away in a clean container in the fridge
- Use all equipment within 24 hours of boiling.

Chemicals

A chemical sterilant is an antibacterial solution that comes in liquid or tablet form.

Washing bottles with soap or detergent until visibly clean, followed by submersion in solution for 30 minutes, completely eliminates bacterial contamination.

Chemical sterilisation is not as effective as boiling unless bottles and other equipment is meticulously cleaned.

- Rinse in cold water then wash bottles, teats and caps in hot soapy water with a bottle / teat brush before sterilisation
- Follow the manufacturer's instructions carefully when making up the solution to ensure correct dilution.
- Discard the solution after 24 hours.
- Thoroughly scrub the container in warm soapy water and make up new solution.
- Make sure all equipment is plastic (metal corrodes when left in chemical sterilant)
- Completely submerge everything, make sure there are no air bubbles.
- Leave equipment in solution for at least the recommended time.
- Equipment can be left in solution until it is needed.
- Allow equipment to drain – do not rinse, as there will be a risk of re-contamination

Steam sterilisers

Steam sterilisers are automatic units that raise the temperature quickly to the range that kills harmful bacteria. There are electric and microwave steamers available from most chemists or baby shop outlets

- Rinse in cold water then wash bottles, teats and caps in hot soapy water with a bottle / teat brush before sterilisation
- Sterilisers should be used according to manufacturer's recommendations.
- Store equipment that is not being used straight away in a clean container in the fridge
- Use all equipment within 24 hours of sterilisation

THAWING AND WARMING EXPRESSED BREAST MILK

- EBM should be thawed quickly by first placing container under running cold water, gradually allowing the water to get warmer until the milk becomes liquid.
- EBM can then be warmed in a container of hot water (not boiling) until it reaches body temperature.
- **A microwave should not be used** as it heats unevenly (increasing the risk of burns) and it appears to change the immunological and nutrient value.
- EBM should be used within 24 hours of thawing.

Transporting EBM

If EBM needs to be transported this can safely be done in an insulated container with a freezer pack or crushed ice. Small bottles will fit inside a wide mouthed vacuum flask, with ice added to keep it cool. Frozen EBM should be maintained in a completely frozen state.

Refrigerated EBM should be maintained at 4°C.

MAINTAINING YOUR MILK

As mentioned, to achieve optimal milk production most women must express six or more times a day for duration of a minimum 100 minutes a day The combination of both hand and pump expression is seen to be the most successful method of maintaining a milk supply (Nicholson 1988).

Other practises that will assist to maintain a good milk supply.

Nutrition.

Do not forget to eat. Food high in protein, calcium and iron are necessary. It is sometimes hard to eat large meals. Nutritious snacks are often more convenient, e.g. cheese cubes, yoghurt, peanut butter with crackers, nuts, fresh fruits, dried fruit or cut up raw vegetables. Take these snacks with you when you visit your infant. Ask friends and relatives to prepare foods that can be frozen for quick warming when wanted.

Fluids

Drink according to thirst. You do not need to drink gallons of fluid - you do not need to drink milk to make milk. Drink a glass of water or juice when pumping or breast-feeding your infant, (as your let down reflex can make you very thirsty).

Rest

Find time each day to put your feet up and rest. When visiting your infant ask for a chair so you can sit next to the crib or isolette. Obtain help with housework, laundry, cooking, errands and other children if at all possible.

SPECIAL CARE NURSERY

Moving from Tube to Breastfeeding

The readiness of the infant to feed from the breast will depend on a number of factors.

- Can your infant breathe without assistance?
- Does your infant need IV fluids?
- Does your infant have digestive problems?
- Can your infant suck and swallow?
- Can your infant stay warm outside the isolette when wrapped in blankets?

Several things can be done before your infant goes to the breast to get him/her ready.

- Ask a staff member to place your nipple in your infant's mouth while being tube fed. This will help your infant begin to associate sucking with the sensation of a full tummy.
- Hold your infant next to your breast during tube feeds.
- Cuddle your infant in breast feeding positions to accustom him/her to close contact.
- Express some milk into a gauze swab and put it in your infant's crib for periods of time so he/she can smell your milk.
- Provide a calm environment for your infant. Dimmed lights and soft voices to avoid your infant being stressed.
- Holding and moving infant with his/her arms and legs curled allows him/her to become comfortable with the positions in which you will breastfeed your infant.

Gradual introduction of breast feeds has been found to be most successful to long-term breastfeeding. Watch your infant when he/she is waking up look for licking of lips, sticking out his/her tongue, putting his/her hands to his/her mouth. Your infant will need lots of practise to learn how to breastfeed. Your infant will start out sucking 1 or 2 times then stop to rest.

Your infant may need to practise over many feeds to get strong and use a nice pattern to suck, swallow and breathe. Good sucking means your infant will keep sucking for more than 10 seconds before pausing. Some premature babies may be home before they can suck well

Look for:

- A wide-open mouth as big as a yawn. Infant's mouth will take in all of your nipple and some of the darker coloured areola.
- A good sucking rhythm with 1 suck per second.
- Infant swallows milk after every 1 or 2 sucks.
- Infant stays on breast.
- Infant can suck and swallow several times in a row before he stops to rest.

You will know your infant is feeding well when you can see milk in the corner of his/her mouth, hear swallowing and feel tugging when he/she sucks. The tug should feel like the breast pump.

At times when attachment to the breast is difficult due to your infant's mouth size or flat/inverted nipples, a nipple shield may be used.

When using a bottle, it may be helpful to watch 'Paced bottle feeding' by Jessica Barton on YouTube.

INCREASING YOUR SUPPLY

If you are experiencing difficulty providing an optimal supply the following strategies may be useful

Double pump minimum of 6 times in 24hrs 3 hourly during day and 4 hourly overnight.

Power pump – double pump 10min every hour for 3-4 hours

(Eg. 9am = 10min, 10am = 10min, 11am = 10min, 12md = 10min, then 3 hourly)

If you miss an expressing time because you are busy or too tired just fit in an extra one between your normal times. You can always express early to fit in with visitors, or eating, or taking a nap just make sure you do it 6-7 times a day. Fit it into your life.

Motilium a tablet taken orally has also seen to improve milk supply. This can be discussed with your Obstetrician/Paediatrician or one of the Lactation Consultants

GOING HOME

On discharge your midwife will make available to you support resources in your community such as Early Childhood Centre and contact information for the Australian Breastfeeding Association

FURTHER RESOURCES

Australian Breastfeeding Association 1800 686 268

Tresillian Family Care Centres 1300 272 736

Karitane 1300 227 464

Breastfeeding your Baby

http://www.kidsfamilies.health.nsw.gov.au/media/289199/h1536044_breastfeeding_your_baby_may_15_web.pdf

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