Expressing breastmilk for your baby in the Neonatal Intensive Care Nursery
We congratulate you on the birth of your baby however we understand that having your baby in the nursery can be extremely stressful. We hope this booklet will answer some of the many questions you have about providing breastmilk for your baby. The Neonatal team encourage you to express your breastmilk as it has benefits for your baby.

We aim to give you all the assistance you need to achieve successful expressing, hopefully leading to successful breastfeeding.

(NICU Lactation Team)

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Establishing a milk supply for your baby in RPA Newborn Care

Establishing your milk supply relies on early and regular stimulation of the breast by either breastfeeding or expressing with effective removal of colostrum, then eventually mature milk. However every mother’s circumstance varies and it may be necessary to individualise some of the guidelines in this booklet to gain the best results.

If your baby is admitted to the nursery and is not able to breast feed immediately it is important to express your colostrum and stimulate your breasts. Expressing your breast by hand should be started as soon as possible, within 2 hours of the birth of your baby. The midwives caring for you on the labour ward or postnatal ward will help you get started.

Getting Started

Hand hygiene
Preterm or sick and hospitalised babies are more prone to infection so careful attention to hand hygiene when handling breastmilk, breast expression and feeding equipment is extremely important.
Before handling expressing and feeding equipment, thoroughly lather hands with liquid soap and water for 30 seconds. Pay attention around and under your finger nails.

Rinse off the soapy water. Dry your hands with a clean disposable paper towel.

Breast expression
You may need to ask for some help the first few times.
Get comfortable, in a well-supported relaxed position. Drop your shoulders and breathe deeply. The staff will provide you with a purple syringe with cap or a container to collect your colostrum or milk, plus adhesive name labels for identification.

Look at a photo of your baby, or smell a piece of your baby’s clothing like a hat or bootie whilst expressing, as this can help your milk ejection reflex or ‘let down’.
Have a drink within reach each time you express as you may feel thirsty during the process.

**Breast massage (just before hand expressing)**
Gentle breast massage will help to trigger a “let down” reflex.

Keep your finger nails short and use your fingers to massage your breasts in a circular motion from the outside in towards your nipple. Repeat this several times.

Encourage stimulation by rolling your nipple between your fingers. This will help release the hormone oxytocin to help with milk flow.

**Hand expressing**
After massaging your breast hold the collection container under your nipple, or have a syringe ready to collect the milk drops.

Place your thumb and index/forefinger on opposite sides of the nipple at the edge of the areola (see diagram)

Push directly back towards the centre of your breast and rib cage, squeezing your fingers together gently, in a rhythmic action.

Repeat rhythmically and gently. It should not be painful. When the flow stops, move your hand around the breast to another position around the nipple and repeat the process.

**How to hand express**

*Photos courtesy of Yvette O’Dowd and the Australian Breastfeeding Association*
You may like to swap to the other breast after about 5 minutes if the milk has stopped flowing, or your hands become tired. Aim to express both breasts for about 10 -15 minutes each expression time.

When you have finished rub some breastmilk into the nipple and areola (dark area around nipple) to keep the nipples in good condition.

The amount you express will vary from a few drops to larger volumes and will depend on how you are feeling and the time of day. Initially there may be none or only a small amount, but maintaining regular stimulation will help increase your supply. When the breastmilk begins to flow more easily, this indicates that the ‘let down’ has occurred. This lasts for about three to five minutes after which time the breastmilk no longer flows easily. When the flow slows down you can swap to the second breast.

**Establishing your milk supply**
It is recommended that you express 8 times in 24 hours for the first few days. The minimum number being 6 times in 24 hours. After the first 24-48 hr period of hand expressing you may start using the electric pump in conjunction with hand expression.

**Using an electric pump**
When you start using the electric breast pump you will be supplied with a disposable expressing kit which may be used for 24 hours. Please ask the midwife caring for you for a replacement daily.

It may take 3 to 5 days before your milk ‘comes in’ and your breasts feel firm and full. Many mothers find using the breast pump in combination with hand expression more efficient while waiting for their milk to ‘come in’.

Before using an electric pump it is important to gently massage your breast to trigger your “let-down”. (See Breast massage and Hand expressing).
• Place the pump flange centrally over the nipple and press firmly.
• Use low suction to start and build up to a comfortable level.
• Your nipple should move freely in to the pump flange without being squashed in around the edge. *If unsure ask for help.*
• Higher pressures can be used as long as they don’t cause discomfort.

![Good fitting flange](image1.png) ![Tight fitting flange](image2.png)

**Good fitting flange**
Space seen around nipple

**Tight fitting flange**
The nipple rubbing along tunnel

*Wilson – Clay Hoover 2005, Jones 2001/ Ameda Comfortfit Flange system*

**Acknowledgements:** www.ameda.com/breastfeeding/started/latch_on.aspx

**Care of your breasts**
There should be no pain or discomfort when using the electric pump. Other flange sizes are available from the chemist if the size is incorrect. Check with the lactation team before changing size.

Your breasts may feel hot and swollen when your milk first ‘comes in’ however this should settle with regular expression. If they remain reddened or hard after expressing please let your midwife know.

If you have had any breast surgery including implants or breast reduction please inform the lactation specialist.

**Cleaning disposable expressing kits**
For the protection of your baby, the disposable expressing kit must be cleaned thoroughly after each use and discarded after 24 hours. The midwife caring for you on the postnatal ward will give you the instructions and equipment for cleaning your kit whilst in hospital.
Correct labelling of your expressed breastmilk (EBM)
All breastmilk containers including syringes and milk storage bags must be labelled with a sticker that includes the following information:
• Expressed breastmilk (EBM)
• Baby’s name and medical record number (MRN)
• Date and time the milk was expressed.

Storing your breastmilk (EBM)
• Use a new container for EBM each time you express.
• When possible please bring your freshly expressed milk down to the nursery and give it to the nurse caring for your baby to store in nursery fridge. You may be able to store it in the ward fridge until you are able to get to the nursery.
• EBM for babies in the nursery can be kept at room temperature for up to 4 hours.
• Fresh milk may be stored in a fridge for up to 48 hours in hospital.
• Any defrosted milk must be used within 24 hours.
   See table on page 11.

Expressing breastmilk guidelines - Summary
Cleanliness is very important so wash your hands before and after expressing every time.

Hand expressing for the first 24 to 48 hours with gentle hand massage.
• Express one breast for 5 minutes then the other for 5 minutes.
• Repeat this process in combination with some gentle breast massage. Express each breast for a total of 10 minutes.
• Aim for 8 times in 24 hours (no less than 6 times)

Using an electric pump for expressing 24 to 48 hours after birth
• Start with some breast massage and stimulate the nipple.
• Express one breast for 5 minutes then the other for 5 minutes
• Repeat process and follow with 5 minutes of hand expressing
• Once your milk comes ‘in’ combining pumping and hand expressing with gentle massage can help to increase your milk supply.
Expressing times
• Once before bed about 9 - 10pm. Have 5 hours sleep
• Again at approximately 3 - 4 am. Your hormone prolactin levels are higher at this time and will help your milk production.
• Express 6 more times during the day, equalling 8 times per 24 hours.
• If your milk supply is low or dropping, you may like to discuss this with the lactation specialist in the nursery who will advise you on ways to increase your volume.

Expressing times for mothers taking medication for high blood pressure whilst in hospital (as you will be woken to take medication at these times):
• 11 pm prior to medication at 12 midnight
• Have 5 to 5½ hours sleep
• Express at 5 - 5.30 am
• Express 6 more times during the day, equalling 8 per 24 hours.

An example of an expressing schedule for 7 expressions in 24 hrs

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<tr>
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<th>Time</th>
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<tbody>
<tr>
<td>During the night</td>
<td>4am</td>
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<td>Before breakfast</td>
<td>7am</td>
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<td>Mid morning</td>
<td>10am</td>
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<td>Lunch time</td>
<td>1pm</td>
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<td>Afternoon</td>
<td>4pm</td>
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<tr>
<td>Dinner time</td>
<td>7pm</td>
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<tr>
<td>Before going to sleep</td>
<td>10pm</td>
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</table>

Discharge from postnatal ward when your baby stays in the nursery
This is going to be one of the toughest days so far but you will find ways to remain fully connected to your baby. Continuing to express your milk will help the connection and is important for your baby.

Please make time to talk to our social worker if you are finding the whole adjustment difficult. They will be able to assist with strategies to manage your transition home and your baby’s subsequent discharge. Please refer to the Social Work reference in the parent handbook.
Before you are discharged
• Organise to either rent or buy an electric pump. There is a list of chemists that hire pumps available from the nursery. The ABA hires pumps and has competitive prices.
  See resources.

• Collect a sheet of your baby’s name labels and EBM stickers for your breastmilk bags.

Once you are at home
You may be wondering how much milk to pump or how long you should spend pumping once you are home. Be guided by the lactation team who will be able discuss what is best for you. You may like to fill in the expressing log in the middle of the booklet which the lactation specialist can assess the need for any change in. The following is a general guide for what to do.

Express 6 -8 times (not less than 6 times) in 24 hours (See the example expressing schedule on page 9). This will vary if your baby is having some breast feeds, or if the lactation team has recommended a different schedule.
### Storage of breastmilk for babies in hospital

<table>
<thead>
<tr>
<th>Breastmilk</th>
<th>Storing at Room temp (26°C or lower)</th>
<th>Storing in the fridge (40°C or lower)</th>
<th>Storing in the freezer(180°C or lower)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshly expressed into a clean sealable container</td>
<td>4 hours at room temperature, however refrigerate where possible.</td>
<td>Store in back of fridge for up to 48hrs</td>
<td>2 weeks in the freezer section that is inside the fridge or 3 months in the freezer with a separate door to the fridge or 6-12 months in a deep freezer</td>
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<tr>
<td>Previously frozen thawed but not warmed</td>
<td>4 hrs (i.e next feed)</td>
<td>24 hrs in refrigerator</td>
<td>Never refreeze</td>
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<tr>
<td>Thawed outside fridge in warm water</td>
<td>Room temperature till the end of the feed.</td>
<td>4 hrs in the fridge for next feed</td>
<td>Never refreeze or re warm milk</td>
</tr>
<tr>
<td>Baby has begun feeding</td>
<td>Kept until feed has finished then discard leftover milk</td>
<td>Discard any leftover milk</td>
<td>Discard leftover milk</td>
</tr>
</tbody>
</table>

### Never microwave breastmilk

- Store breastmilk in the main section of your fridge.
- If coming to the nursery daily, bring in **fresh** breastmilk (not frozen). If unable to come into the nursery daily then freeze the milk at home before bringing it to the nursery.
- Breastmilk has to be delivered cold regardless of the weather – use an Esky or any bag with an ice brick.
Care of the expressing kit at home

Ensure the breast pump kit is sterilised before you use it for the first time.

*Clean expressing kit thoroughly after each use and before sterilising.*

Cleaning expressing kit

Dismantle kit so all parts are separate. Rinse them with cold water to remove any breastmilk, and then wash all parts in warm water and dishwashing liquid. Be sure to clean inside and squirt water through any holes.

Rinse well in warm water to remove detergent. Place expressing kit on a clean disposable towel or cleaned surface. Cover with another clean towel while allowing to air dry or dry with a paper towel.

While your baby is in hospital, he or she is at greater risk of infection so we advise that your kit be sterilised by one of the following cleaning methods below once every 24 hours.

Sterilising can occur in the following two ways:

1. **Boiling**
   
   Cover all parts of expressing kit in pan filled with water making sure the water completely covers them. Bring to the boil and continue to boil rapidly for 5 minutes uninterrupted. Allow to cool.

   Wash hands then remove the items without touching their inside surfaces. Shake them to remove excess water.

   Place all parts on a clean disposable paper towel to dry or, if unavailable, a clean dry towel set aside for your use only. Cover with another clean towel (paper/cloth) while they air dry.

   When the expressing kit is dry, store in a clean covered container until next use.
2. Steam sterilisation or using a microwave
Thoroughly clean all expressing kit and feeding equipment as directed above.

Follow the manufacturer’s directions.

When coming in to the nursery from home
Discuss how much breastmilk to bring to the nursery with the nurse caring for your baby. In hospital fresh breastmilk can only be kept in the fridge for 48 hours. If you have more breastmilk than your baby needs, the nurse looking after your baby will store it in the NICU freezer.

A Mothers Expressing Room and kitchen are available alongside nursery for your use when coming to see your baby.

When you have gone home and your baby is still in the Newborn Care Nursery, bring in your own expressing kit in a clean container or plastic bag. If you do not have one or you have a different pump you will be provided with a disposable expression kit.

We have limited storage space in the nursery and you may be asked to keep some EBM at home to freeze.

All EBM must be taken home the day before your baby is discharged from the nursery. We are unable to store any milk that is not used and it will be discarded if left. Some mothers with a large supply of milk may need to purchase a small freezer for home or rely on friends and family to help with storage.

Any questions
Remember if you have any concerns about your milk supply, or if you need help to establish a schedule that works for you or other aspects of breastfeeding please speak to your baby’s nurse or contact the lactation team.
Increasing your milk volumes

• The most common reason for low volume is long gaps between expression times. Try to increase the number of times you express to at least 8 in 24 hours, for 10 to 15 minutes each side.

• Double pumping has been shown to increase the milk volume. This is where both breasts are expressed simultaneously using two Lactaset or similar. Some pumps can do this. Check with the lactation team in the nursery to see if this is appropriate for you.

• Express following a breast feed

• ‘Skin to skin’ contact and breast cuddles prior to expressing

• Use of Domperidome (Motilium)

• Herbal supplements

• Acupuncture

Maintaining your milk supply

If you are expressing long term or for twins you may need to continue expressing from both breasts every time you express to maintain adequate supply. As the time approaches for your baby to be discharged you may need to cut back on production to match their intake. Discuss milk reduction schedule with lactation specialist.

Reducing your milk volume

If your milk volume exceeds 120 mls each time you express, when pumping a minimum of 6 times in a day you may be able to reduce this amount. Milk production relies on regular drainage of each breast. To reduce volumes of milk expressed begin by draining one breast and relieving comfort on second side. Switch sides at next expression. You may experience a feeling of temporary fullness in between expressions. Ice packs may be applied to breast between expressing. The feeling of “fullness” will slow down milk production. Please contact the lactation team in the nursery for advice before commencing a milk reduction schedule.
Breast or nipple pain
There are many reasons why you may experience discomfort in your breast or nipple. Please inform lactation team if you experience any of the following:

- Blocked ducts can cause general “flu like” symptoms as well as breast pain and redness. This can lead on to mastitis but can be avoided if managed early.
- Cracked or sore nipples as well as pain while expressing may indicate problems with the pump flange size.
- Blanching of your nipple after feed/expressing is finished causing a stabbing pain / throbbing pain.

Smoking, Alcohol and other drugs
Nicotine passes though into the breastmilk, therefore if possible avoid smoking or areas where others are smoking at least an hour before and during breastfeeding or expressing. Smoking can cause a reduction in milk supply.

Alcohol passes in to breastmilk, express and discard milk especially when expressing for a sick or preterm baby. Illicit drugs will transfer into your milk and may affect your baby. Please discuss with doctor or nurse looking after your baby about the safety of any medications that you are taking.
Useful Resources

(ABA) Australian Breastfeeding Association
Breastfeeding Helpline (24 hours, 7 days a week)
1800 686 2 686 (1800 mum 2 mum)
Visit www.breastfeeding.asn.au and look for the sections on ‘email counselling’ and ‘ABA local groups’

Hand expressing visual aids http://newborns.standford.edu/Breastfeeding/Max

Mothersafe: Medications in Pregnancy and Lactation Service
Phone: Toll free: 1800 647 848 or (02) 9382 6539

Glossary of words used in this booklet

Areola – the dark area surrounding nipple

Colostrum – the first form of milk, in small quantities, designed to be thick and concentrated

Prolactin – the hormone responsible for making the breastmilk

Oxytocin – the hormone responsible for releasing the breastmilk during the feed

‘Let-down’ or milk ejection reflex – when breastmilk stored in the milk-making cells of the breast is squeezed down the ducts towards the nipple openings, in response to oxytocin release.

Milk ‘coming in’ – describes the mature milk becoming available usually a few days after birth

‘Skin to skin’ or kangaroo cuddle – when you hold or cuddle your undressed baby against your own bare skin, covered by a wrap or blanket.

Breast cuddle – when your baby is starting their first breast feeds he or she may begin by licking the nipple or lie comfortably between your breasts

Double pumping – expressing both breasts simultaneously with two expressing sets
**EBM** - stands for Expressed Breastmilk

**Mastitis** - inflammation in an area of the breast, that can follow a period of engorgement or a blocked milk duct.
My own notes
My own notes
# Expressing Log

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*If you are hoping to increase or reduce your volumes of EBM then you may find it helpful to record what you are doing and then discuss with the lactation specialist in the nursery.
Photographs courtesy of Kristina Jepp and her boys Oscar and Lucas