

GUIDELINES FOR EXPRESSION, HANDLING AND STORAGE OF BREASTMILK

This guideline should be used in collaboration with

Infant feeding policy

Reluctant feeder's pathway

Hypoglycaemia pathway

Neonatal guideline for labelling feeds.

Management of women with gestational diabetes

Type 1 and Type 2 diabetes in pregnancy

Breast milk handling and storage WAHT-KD-016

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Breastfeeding has physical, developmental and emotional benefits for the baby; the baby provides the best means of establishing and maintaining the milk supply. Expression is a substitute means of stimulating lactation. Any situation that causes mother and baby to be separated or if the baby is unable to breastfeed effectively means lactation should be stimulated by expression.

ALL breastfeeding mothers should be shown how to hand express their breast milk. It helps her to recognise and deal with common complications of breastfeeding. Breastfeeding helps support close and loving relationships.

Breast milk is an important requirement for pre-term babies, promoting the establishment of enteral feeding, providing protection against disease and promoting growth and development Sick/pre-term babies can be adversely affected by separation in the early post-natal period, separation should be kept to a minimum and parents should be partners in care.

The patients covered by this guideline are mothers; babies and infants cared for in the maternity, paediatrics and neonatal departments within the Worcestershire Acute NHS Trust

All staff that care for mothers and babies should be able to teach mothers how to express their breastmilk both by hand and pump. Training is mandatory for all staff. Colostrum is the optimum source of nutrition for the new born baby as it is rich in antibodies, has high bioavailability, increases gut peristalsis and aids the passage of meconium.

Colostrum aids in the activation of early protective immunological responses in the infants gut and therefore should be the first food given to infants, has valuable health benefits for the baby. Unless colostrum is efficiently removed in the early post-natal period milk production can be inhibited later.

Antenatal colostrum harvesting

Antenatal colostrum harvesting is defined as the hand expression of colostrum by the mother.

Any woman can express her colostrum after 36 weeks.

All women should have a conversation about feeding their baby with the community midwife around 28 weeks and given a copy of the patient information leaflet, see appendix 7. The discussion should include the benefits of antenatal colostrum harvesting

The DAME study (1) was the first randomised controlled trial to test the practice of antenatal hand expression of colostrum. The DAME Study found 'no harm in advising women from 36 weeks to hand express.

Cautions

Antenatal expression of colostrum should be used with caution in the following circumstances

- History of threatened premature labour
- Cervical incompetence
- Cervical suture in situ
- History of antenatal bleeding in this pregnancy
- Placenta Previa covering OS
- HIV positive/ Hep B positive mothers

Colostrum can be collected 2-3 times per 24hours and stored in the same syringe.

The mother should only hand express, the use of a pump is not recommended, as any signs of tightening, stop, rest. If the tightening persists, advise to contact triage

The syringe should then be capped and kept in the fridge for 24 hours.

After 24hours the syringe containing colostrum should be placed in the freezer until needed.

Each syringe should be labelled with patient label and date and time of last expression.

Once out of the freezer and defrosted, colostrum should be used within 24 hours.

The mother should bring her frozen colostrum into hospital in a cool bag with an ice block in and given to the staff to place in the freezer located on postnatal ward, until needed.

Staff should follow guidance in 'breastmilk handling and storage' WAHT-KD-016**Mothers with Diabetes**

All mothers with diabetes should have a discussion with a midwife about feeding their baby.

All mothers with diabetes should be provided with the leaflet" Diabetes and feeding (WAHT- P1-0354)
See diabetes Guideline WAHT-TP-094

Breastfed babies are less likely to develop diabetes in childhood but babies who receive any cow's milk can trigger this development.

Formula milk is made from cow's milk; therefore any formula milk given to a breastfed baby can trigger this response, therefore we encourage exclusive breastmilk for these babies.

In the antenatal period, a midwife should discuss with the mother about antenatal expression of colostrum. The mother can commence this after 36weeks or before if the mother is being induced. See (appendix 7)

The CEMACH (2) diabetes programme report recommends exclusive breastfeeding for infants at risk of hypoglycaemia as breastmilk appears to promote counter- regulation and formula supplementation may suppress this

Risk of sick or preterm babies

Mothers at risk of pre-term delivery should have a meaningful discussion before delivery about the value and benefits of breastfeeding and the importance of providing milk for their babies even if they do not wish to establish breastfeeding when their babies are ready. These mothers should be signposted to the 'Baby Buddy App' which incorporates the 'Small wonders' video clips and be encouraged to watch all expression of breastmilk sections.

Parents whose babies are in the Neonatal Unit should be given the leaflets "Benefits of Breastmilk" and "Expression of Breastmilk" produced by the West Midlands Neonatal Operational Delivery Network (WMNODN) (Appendix 4) –soon after the birth of their baby.

All parents should be provided with a copy of 'The feeding Journey (Appendix 3), to prepare them for their journey through feeding and the neonatal unit

At Birth

After birth of the baby, skin to skin contact should be encouraged for at least an hour or until the baby has a feed. Good positioning and attachment should be taught and encouraged as soon as possible.

If the baby is reluctant to feed at the breast, mothers should be supported to hand express before moving to the post-natal ward.

If the baby is separated and goes to NICU, Colostrum needs to be expressed within an hour of birth and given to the baby as part of the baby's treatment. See buccal colostrum leaflet. (Appendix 2)

Hand expression

Hand expression is a valuable skill for mothers to learn. All mothers should be taught after delivery, or as soon as possible and prior to discharge or if she has had a home birth this is the responsibility of the community midwife. Hand expression is the most effective way to express colostrum.

A mother with a sick or pre-term baby should be encouraged to hand express within 1 hour of birth to provide colostrum for her baby, this should continue at least 8-12 times in 24 hours, including at night. Breast massage and stimulation prior to this has been shown to improve supply. Every drop of colostrum is valuable for the baby and this should be reinforced to all parents. The mother should be shown how to use the electric pump after 24 hours, this has been shown to be more effective for mothers with sick, preterm babies and twins to maximise supply.

Expression by Electric Pump

- The first expression using the electric pump should be supervised to ensure the mother knows how to assemble the pump correctly, using correct sized shields and uses a good technique. .
- A new single use bottle for each expression.
- The mother should be encouraged to express at least 8 to 12 times in 24 hours and at night to maximize her supply.
- Mothers should stimulate oxytocin, by having the baby close by, if this is not an option, having a picture of the baby or something that smells of their baby, such as an octopus/video link to baby will help . Encourage skin to skin prior to expression. Massage the breasts, use of warm water and flannels can be helpful.
- ALL mothers should be encouraged to **double** pump for at least 20 to 30 minutes for most effective milk removal , continue until she feels her breasts are empty **OR** the milk stops flowing.

WAHT-TP-094

- All mothers with babies on TCU/NICU should use an expression log (Appendix 6) or any other mother who is expressing, may find this useful tool.

Storage of Breastmilk in Hospital

Expressed breast milk (EBM) should be fed to the baby as soon after expressing as possible, if there is a delay for any reason please observe the following:

- Expressed breast milk should be stored in pre-sterilised bottles or enteral syringes.
- Expressed breast milk should be labelled with baby’s name and hospital number, the date and time of expression.
- Each collection should be stored separately.
- Fresh milk should always be given in preference to previously frozen as freezing reduces the quality of some valuable nutrients for the baby.
- Expressed breast milk should be fed in the sequence, oldest first, as it is expressed to obtain maximum health benefits for the baby and changes with maturity (Jones and Hartmann 2005(3)).
- Frozen milk should be defrosted ideally in the fridge. Milk should never be defrosted in a microwave.
- Fridge and freezer temperatures should be checked daily, Fridges should be maintained at a temperature of between 2-4 degrees Celsius and freezers should maintain a temperature of < 18 degrees Celsius and recorded on daily checking sheets. Any variation should be reported and the appliance checked.
- If fridge or freezer is faulty/broken on post-natal ward, the fridge or freezer on NICU/TCU can be used
- Fridges and freezers to store breastmilk should always be locked. This helps prevent milk errors and promote best practice for the handling and storage of breastmilk, only staff should have access to fridges and freezers

Recommended storage times for hospital use

Type of Milk	Room temperature	Fridge 2-4 degrees	Freezer<-18 degrees
Fresh Breastmilk	4 hours	48 hours (Milk unused after this time may be frozen)	3 months
Defrosted Breastmilk	As soon as possible	12 hours	N/A

Storage of Milk at Home

This guidance is for term, healthy babies. Current information on storage is in DOH' Off to the best start' and 'Mothers and others guide'

Recommended storage times at home

Type of milk	Room temperature	Fridge 0-4degrees	Freezer < 18 degrees
Fresh breastmilk	4 hours	5 days, then frozen if unused	6 months
Defrosted breastmilk	As soon as possible	As soon as possible	N/A

Handling of Expressed Breast milk

- Wash hands thoroughly, and wear non sterile gloves and a plastic apron to prevent cross infection when handling breast milk.

Expressed breast milk must be gently agitated prior to use to ensure even distribution of fat that may have separated.

- Expressed breast milk and formula milk should not be mixed together in the same bottle. Breastmilk should always be given to the baby first
- All expressed breast milk should be labelled with the baby's/ mothers name and unit number/ NHS number, also the date and time of expression.
- If the milk has been frozen the date and time of removal from the freezer should also be added to the bottle or syringe
- Any additive should be clearly documented on an additive label
- Two members of staff must check all expressed breast milk prior to feeds to ensure the correct milk is given to the correct baby and documented

Breast milk Error

- If any baby is given milk belonging to any mother other than his own, staff should refer to WAHT-INF-008 for care management. A Datix must be completed.

Donor Breast Milk on NICU

The use of donor breast milk will be based on a clinical need.

It will have always been sourced from a milk bank

Parents should be given the opportunity to discuss this fully with the nursing/medical team to allow them to make a fully informed choice. Parents should also be given the leaflet "*Donor Expressed breastmilk West midlands neonatal operational delivery network (WMNODN) (Appendix 1)*".

Use and Handling of Donor Milk

The Neonatal Unit should keep records of how the donor milk received from the milk bank is used (NICE 2010).

On receipt of donor milk into the unit:

- The condition of the donor milk on arrival to the unit from the milk bank should be recorded in the donor breast milk book.
- Each bottle of donor milk has 2 printed slips. Each slip will have the batch number, bottle number and expiry date on. As the bottle is used each slip should have a patient sticker attached and the date of use written on it. One slip should be stuck into the patient notes and the other put into the envelope in the milk kitchen. The information is then transcribed by the nutrition link nurse or ward clerk into the donor milk register.
- Where possible the baby should receive the same batch of donor breast milk.

These records must be kept for at least 30 years after the expiry date, use, or disposal of the milk. These records should be confidential and will be kept on the NICU.

Storage of Donor Milk

- The donor breast milk should be stored in the top drawer of the freezer in the milk kitchen on NICU.

Donor breast milk should be defrosted slowly in the refrigerator and any remaining after 24 hours should be discarded.

Cleaning of Breast Pump Equipment in hospital

See appendix 8

Thorough cleaning of equipment is important to reduce the risk of infection in the baby.

Each mother will be given her own expressing kit, toothbrush and small plastic bowl which are for her own use and for the duration of her hospital stay. The mother's name should be written on the expressing kit and bowl using a permanent marker.

She should be given a demonstration regarding cleaning and safe storage of equipment between expressions.

A poster (appendix 8) demonstrating the technique is displayed in milk kitchens on PNW, TCU, NICU.

Feeding cups and spoons used only for breastmilk can also be cleaned in this way.

Mothers should be advised to use their usual method of sterilization when at home

References

1) Forster, DA, Moorhead, AM, Jacobs, SE, Davis, PG, Walker, SP, McEgan, KM, Opie, GF, Donath, SM, Gold, L, McNamara, C, Aylward, A, East, C, Ford, R & Amir, LH 2017, 'Advising women with

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diabetes in pregnancy to express breastmilk in late pregnancy (Diabetes and Antenatal Milk Expressing [DAME]): A multicentre, unblinded, randomised controlled trial', The Lancet, vol. 389, no. 10085, pp. 2204-2213. [https://doi.org/10.1016/S0140-6736\(17\)31373-9](https://doi.org/10.1016/S0140-6736(17)31373-9)

2) The Confidential Enquiry into Maternal and Child Health (CEMACH). Diabetes in pregnancy: caring for the baby after birth. Findings of a National enquiry: England, Wales and Northern Ireland. CEMACH London; 2007

3) Jones E, Hartmann, P.E. In: Jones, E, King, C (eds) Feeding and Nutrition in the Pre term Infant. Elsevier LTD, 2005; Milk Expression; 69-85

Appendix 1 WMNON Donor milk leaflet



Donor Expressed Breast Milk (DEBM)

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 Neonatal Operational Delivery Network

What is Donor Expressed Breast Milk?

DEBM is donated by breast feeding mums who have more milk than they need to feed their own baby.

DEBM is delivered to the milk bank, pasteurized to ensure it is safe to give and kept frozen until needed.

All donor mums are screened for infections before their milk is accepted by the milk bank. Milk is not accepted from mums who smoke or take certain medications.

When might babies be given DEBM ?

If you have given birth to a very preterm or sick baby you may not always be able to provide enough of your own breast milk **at first**. This is only temporary and will improve over the next few days with regular expressing and support. (Please ask your nurse or midwife for help).

DEBM may be the preferred alternative milk if there is not enough of mum's own breast milk to meet baby's needs² in the first few weeks. Generally, babies who are born preterm (less than 30 weeks) are the ones who will benefit most from donor breast milk.



DEBM can be used on its own or given alongside mums own milk to make up the volume required. You will need to give your consent for DEBM to be given to your baby.

How long will DEBM be used for?

As mum's own milk volume increases over time, the amount of DEBM used will decrease until it is no longer needed.

If mum's own milk continues to be unavailable or in short supply, the change from DEBM to preterm formula is necessary to meet the baby's nutrient requirements. Often due to the processing methods, the protein and energy content of DEBM is not enough to meet the long term needs of your preterm baby. The medical team looking after your baby will discuss the timing of this change with you.

Further reading:

BAPM 2016 The use of donor human expressed breast milk in newborn infants. A framework for practice.

<https://www.bapm.org/resources/use-donor-human-expressed-breast-milk-newborn-infants-framework-practice>



Human Milk Fortifier (HMF)

A pre-term baby should grow much faster than a baby born at term. To meet the increased nutrient requirements of a preterm baby, all breast milk (mum's own and donor milk) will have human milk fortifier added when baby is established on feeds. Fortifier provides extra protein, vitamins and minerals to support growth.

Alternatives:

The alternative to DEBM is pre-term formula. Pre-term formula provides the extra nutrition needed to support growth in pre-term babies², however it does not provide the protective factors of mum's own breast milk.

Where mum's breast milk is not available, the evidence suggests feeding a preterm baby with DEBM reduces the risk of developing NEC when compared to using formula alone².

Consent

The use of alternative milks for your baby will always be discussed with you. You will be asked to give your consent before DEBM is given to your baby.



Remember your own breast milk, either freshly expressed or by breast feeding, is almost always the milk of choice for your baby.



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 Allied Health Professionals Feb 2020

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Donor Expressed Breast Milk (DEBM)

Although DEBM does not provide all of the benefits of mum's own milk, we know it can help to protect babies against gut disease (Necrotising Enterocolitis, NEC) in preterm babies.

Whilst there is an undeniable body of evidence supporting the wonders of mother's own milk, when this is not available DEBM is widely regarded as the next best option.

It is widely recognised that DEBM helps to protect the health of vulnerable babies; for example, it can reduce the incidence of Necrotising Enterocolitis (NEC) in preterm babies, a devastating gut condition which can have lifelong and costly health consequences.

Unicef 2018¹



Once your supply is established, you may feel you have more milk than is needed to feed your baby. If you would like information about donating please contact the Birmingham Breast Milk Bank:

Breast Milk Bank
 Birmingham Women's and Children's NHS Foundation Trust
 Birmingham Women's Hospital
 Mindelsohn Way
 Edgbaston
 Birmingham
 B15 2TG

bwc.milk.bank@nhs.net
 Tel: 0121 3358245

Additional information about milk banking can be found from the United Kingdom Association of Milk Banking (UKAMB) www.ukamb.org

References:

- 1 www.unicef.org.uk/babyfriendly
- 2 Quigley M, Embleton ND, McGuire W. Formula versus donor breast milk for feeding preterm or low birth weight infants. Cochrane Database of Systematic Reviews 2018, Issue 6.

Current research tells us that mum's own breast milk is the best milk for all babies for lots of reasons¹. It is especially important for babies in the neonatal unit¹.

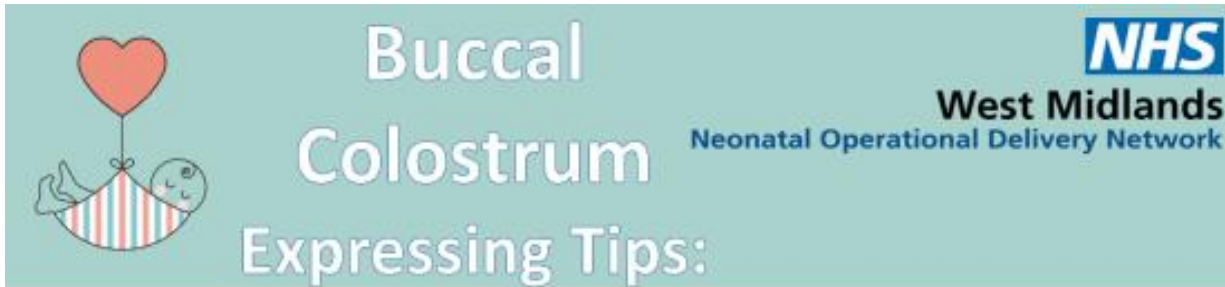


In the early days when mum's own milk is unavailable or in short supply, donor expressed breast milk (DEBM) may be the next best choice².



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Appendix 2 WMNODN buccal colostrum leaflet



Express your breast milk as soon as possible, ideally within 2 hours after your baby is born.

- **Your** breast milk protects **your** baby from infection and helps their brain to grow.
- **DON'T DELAY!**- Expressing breast milk as soon as possible after birth improves later milk volumes
- Every drop of your milk is precious and is given to your baby.



More tips...

- Massaging each breast for a minute or so before expressing helps to stimulate your breasts to produce milk.
- Don't worry if you don't always get milk when hand expressing at first, stimulating your breasts regularly, really helps build milk supply
- Express your milk **8 times or more** EVERY 24hours, including **once at night**.
- Start hand expressing at first and ask your nurse or midwife for advice when to start using an electric breast pump.
- When using the pump, express from both breasts at once for about 15mins, 'double pumping' improves milk supply in the longer term.

Remember your midwife and nurse are there to support you and answer all your questions



Use a QR scanner on your mobile device.
Scan the code to be taken to a video to see how to express colostrum and the benefits of giving it to your baby

www.swmmnn.org.uk/media/



This information should be used in conjunction with the Obstetric Pathways – WAHT-TP-094. Use the version on the internet to ensure the most up to date information is being used.

Appendix 3 WMNODN The feeding journey

The Feeding Journey

GET READY

Baby is not yet ready to feed orally because:

- They need support with breathing.
- They are too sleepy.
- They are not tolerating feeds.

Be with your baby as often as you can. You can help to give tube feeds and make feed times loving and interactive. Ask your nurse about tube feed training.

What you can do:

- Express your breast milk 8x/24hrs (including once in the night).
- Use your milk for mouth care.
- Daily Kangaroo care.
- Talk to baby during feeds.
- If awake at feed times, stroke around baby's lips and face.
- Learn to recognise feeding cues & stress signs (see over) and how to respond.
- Read the Bliss leaflet: "Look at me I'm talking to you".



Discuss your baby's feeding journey with their outside nurse

GET SET

Time to start oral feeds! Baby needs lots of opportunities to practice. Focus on the **quality of the feed, rather than how much baby takes.** Baby will still need most of their feeds by tube.

What you can do:

- Be with your baby as much as possible.
- Keep the cotspace calm & quiet.
- Learn to get baby out of the cot by yourself.
- Use kangaroo care during tube feeds if possible.
- Learn how to position baby to breastfeed.
- Use the elevated side-lying position & slow flow teat for bottle feeding.
- Offer baby oral feeds **any time** you see feeding cues.
- Learn how to score the feed using assessment sheet. Ask your nurse to show you how.
- Watch for stress cues during feeds (see over). Pause or stop the feed and put baby back in kangaroo care. Complete the feed by tube ("Top Up").
- If breast feeding, avoid using a bottle until breastfeeding is established (discuss with your nurse).
- Continue expressing your milk for top up tube feeds and mouth care.

For more information see Progression to oral feeding guideline (scan on a mobile device for link to resources)



GO

Modified Responsive Feeding

- Baby needs to feed any time they show feeding cues. Baby should not be left longer than 3 hours between feeds.
- At this stage, baby may need waking gently, if feeding cues are not shown.
- Score the feed, using assessment sheet.
- Complete the feed by tube ("Top Up"), if needed.
- Express your milk straight after you have settled baby and store in the fridge. This will help maintain your milk supply.

With steady progress, baby can gradually move to responsive feeding .

Once baby wakes regularly for feeds, no longer needs their tube, move to:

Full Responsive Feeding:

- Respond to baby's feeding cues or when you feel baby needs comfort or interaction.
- End the feed if baby shows stress cues.
- Babies feed little and often (at least 8 times a day), and take the amount of milk they need to grow.
- Learn about normal breastfeeding patterns.
- Learn how to make up powdered milk feeds if bottle feeding.



Remember your baby will need time to mature. It takes time to learn how to suck, swallow and breathe altogether. Don't rush!



Produced by SWMNODN Allied Health Professionals Sept 2018

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The Feeding Journey

Feeding Cues

Early I'm ready	Mid I'm really hungry	Late Calm me first, then feed me
Stirring, eyes open	Stretching	Crying
Mouth opening, tongue moving	Increased movement	Agitated, cross
Turning head, seeking, rooting	Hand to mouth	Turning red

Stress Cues

These are the signs that your baby may show when they want to pause or stop feeding. Any remaining feed can be given by tube.

- Grimacing
- Arching
- Finger splaying
- Crying
- Dribbling
- Colour changes around the face
- Drop in Oxygen levels ("sats")
- Loss of alertness, falls asleep
- Hiccup or sneezing



It is important to respond to these signs to make sure feeding is safe, and a positive experience for your baby.



Understanding about sleep:

Sleeping for long periods and not waking regularly for feeds is common when baby's feeding skills are still immature. Your baby will need to have some or all of their feeds by tube. This makes sure they get enough food to grow. The tube acts as a "safety net" and should not be taken out too soon. As your baby matures they will wake more often to feed.

After good feeding experiences your baby needs to sleep to lay down positive brain pathways. This helps them remember what to do next time!

Feeding Frequency

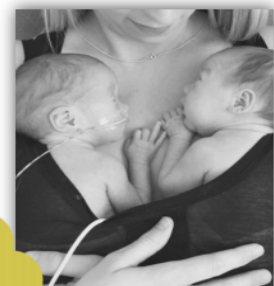
Smaller more frequent feeds are much better tolerated and more comfortable for a baby with a tiny tummy. It is important that babies learning to feed **should not be left longer than 3 hours between feeds.** If your baby is sleepy when a feed is due, try to wake them gently and if alert enough offer an oral feed. See over for Modified Responsive Feeding.

Late Preterm babies:

Babies born between 34-37 weeks may look like full-term babies, but remember they have been born early and are still developing. These babies will benefit from a 'modified' responsive feeding plan (see over) to make sure they get enough food to grow and develop.

Babies don't need to be taught how to feed, their feeding skills develop over time. Babies need the right support, given in the right way, at the right time. This leaflet will guide you through this journey.

Supporting your baby's feeding journey will help you and your baby develop a close loving relationship.



Appendix 4- SWMNN Expressing Breast Milk leaflet

- Continue pumping until the flow stops - about 30 minutes total but there are no time restrictions. If you are pumping each breast separately, keep swapping breasts as the flow slows.
- When you have finished, label the milk bottles as follows before giving it to your baby's nurse:
 - Baby's name & hospital number
 - Date & time expressed
 - MEBM (Mother's expressed breast milk)

Storage of milk expressed at home for use in the Neonatal Unit

- Label as described
- Store milk in fridge for up to 24 hours
- Bring into hospital at next visit
- If next visit is greater than 24 hours after milk expressed please freeze milk
- Transport milk in cool freezer bag; do not let frozen milk defrost, as it cannot be refrozen.

Alternatives to Expressing

Use of formula milk (See Benefits of Breast milk: Information for Parents)

Use of Donor milk from the Milk Bank (See Donor Breast milk Parent Information)

Risks of Expressing

Expressed breast milk is at risk of bacterial contamination if the Mother does not ensure the following:

- thorough hand washing and drying immediately prior to expressing,
- if the expressing equipment is not properly cleaned and sterilised prior to each use, and
- if the milk is not correctly stored in a refrigerator.

There is extensive scientific evidence to support the consensus that breastfeeding is the best way to feed an Infant (Department of Health Infant Feeding Recommendation).

Further Information

www.babyfriendly.org.uk/health.asp
www.laleche.org.uk

www.newbornnetworks.org.uk/southern

Southern West Midlands Newborn Network
Solihull Care Trust

Expressing your Breast Milk on the Neonatal Unit



Information for Parents

Written by Ali White on behalf of:
Southern West Midlands Newborn Network
Working together to improve care for the very youngest patients

Hereford, Worcester, Birmingham, Sandwell & Solihull

Colostrum is present in your breast from early pregnancy. It is the first milk that you produce and appears yellow. It is a unique food & medicine & therefore is highly valued. It is packed full of antibodies to help protect your baby from infection.

The volume of colostrum produced at each expression is usually very small but it is all your baby needs. **Remember your baby's tummy is small too** & the amounts needed over the first few days are measured firstly in droplets & then in teaspoons rather than in bottles. Even if your baby cannot receive colostrum straight away it can be frozen & used later on.

There is NO substitute that has the qualities of colostrum, so EVERY DROP COUNTS...

- Start expressing by hand as soon as you can - preferably within the first 6 hours of birth.
- If you are unwell immediately after the birth, start hand expressing as soon as your condition allows - the sooner the better.

Your milk supply will start to increase just as soon as you start to remove the colostrum & it will take another 3 or 4 days before you actually see larger volumes of milk. **Your milk supply will increase sooner the more frequently you express.**

- Express at least 8 times/day, including once at night for the first few weeks. Hand expressing is recommended in the first 24 hours or so as the volumes expressed are so small but after that you can move on to using an electric breast pump.
- The milk-making hormone is very active at night so try not to allow a gap of longer than 6 hours overnight.
- Pumping both breasts together increases milk supply sooner & reduces the time spent pumping.
- If you prefer you can express each breast separately, swapping from breast to breast each time the flow of milk slows down or stops. This will take longer - about 30 minutes.
- Continue expressing until the flow stops - this will ensure the fat/calorie rich milk is removed, & it will help to reduce breast discomfort.

Expressing Technique

Your baby's nurse will show you how to hand express and where the expressing equipment is kept, how to use the pump effectively and what to do with the collection set after each use.

You are likely to produce more milk if you spend some time with your baby - preferably in skin-to-skin contact - just prior to expressing. Take a photo of your baby or a piece of your baby's clothing to help stimulate your milk flow.

- Wash & dry your hands thoroughly.
- Spend a few minutes stimulating the hormone that pushes the milk out:
 - apply warm flannels to your breast;
 - massage all of your breast using clenched fists;
 - lightly stroke the breast with your fingers towards the nipple;
 - roll the nipple between finger & thumb;
 - hand express for a few seconds as it helps to release the fat-rich milk.
- Assemble the equipment & attach it to the pump.
- Centre the funnels over your nipples & press gently against your breasts to form a seal then turn on the pump.



Good Practice for
 Handling & Storing
 Expressed Breast Milk

NHS
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 Neonatal Operational Delivery Network
 sara.clarke1@nhs.net (Dietitian)

Mother's own breast milk offers considerable protection to sick and preterm infants. There is no evidence at this time that Covid-19 can be passed through breast milk. It seems sensible to do all we can to continue to promote, protect and support the use of breast milk for all sick and preterm babies.

"We suggest the containers should be received...., by others wearing gloves who then wipe down the outside surface of the individual milk containers with disinfectant before doing anything else with them" (1)

Recommendations for Handling Bottles of Expressed Breast Milk:

- Wear gloves when receiving bottles of expressed breast milk from **ALL** mothers
- Wipe down the outside surface of **ALL** the individual bottles using universal disinfectant wipes already in place at hospitals
- Set wiped containers in a rack or on a tray to dry (wet to dry ensures time for viricidal effect) before storing in refrigerators or freezers
- Label with the infants name, date of birth, hospital number and date and time of expressing
- Store in the EBM fridge, in an individual, named, box. (with a lid if mother COVID19 suspect or +ve)
- Use within 48hrs of expression and placed into the EBM Freezer if not used within the allotted time



- References:
1. [Safe Handling of Containers of Expressed Human Milk in all Settings During the SARS-CoV- 2 \(COVID-19\) Pandemic](#), *Journal of Human Lactation* (2020) 0 10.1177/0890334420919083, Kathleen A. Marinelli, and Robert M Lawrence.
 2. [Unicef Uk Baby Friendly Initiative Statement On Infant Feeding On Neonatal Units During The Coronavirus \(Covid-19\) Outbreak](#)
 3. [Centers for Disease Control and Prevention. \(2020\). Interim considerations for infection prevention and control of coronavirus disease 2019 \(COVID-19\) in inpatient obstetric healthcare settings.](#)
 4. [BDA Guidelines for the Preparation and Handling of Expressed and Donor Breast Milk and Specialist Feeds for Infants and Children in Neonatal and Paediatric Health Care Settings \(2019\)](#)



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Expression log

Appendix 6

Start expressing your breast milk as soon as possible after the birth of your baby, ideally within 6 hours.

Hand express for the first 24-48 hours

Massage first, Express until the milk stops coming, initially it will be thick and sticky, after a few days it will flow

Moving onto a pump ... always massage your breasts first, this will encourage milk to flow, pump from both sides at the same time (double pump)

You need to express at least 8-12 times in 24 hours.

You will need to express at least once at night, Don't leave it any longer than 6 hours between expressions

Your aim by 2-3 weeks is 750mls of milk in 24 hours

DATE	1	2	3	4	5	6	7	8	9	10	11	12
Example → 7/7/13	02.30 / 0.1ml	0730 / 0ml	0930 / 0.1ml	12.00 / 0.1ml	15.45 / 0.3ml	1815 / 0.5ml	21.15 / 0.4ml	23.00 / 0.5ml	/	/	/	/

Appendix 7

What you need to know about Antenatal hand expressing

Did you know you can hand express and collect first breastmilk called colostrum before your baby is born ?



Antenatal Hand expressing means expressing your colostrum before your baby is born .



Antenatal hand expressing is particularly

useful if you are diabetic, having a planned caesarean , having twins or triplets , know the baby is going to be born early or have a medical condition such a high blood pressure



You can hand express 2 to 3 times a day for about 5-10 minutes . Don't worry if you don't get much—expressing now can help your milk supply increase sooner when baby is born . Reducing the need to give formula .



Giving this extra milk may reduce the risk of your baby needing admitted to the neonatal unit .



We will provide you with 1ml syringes .Use the teaspoon provided to express onto and draw up into the syringe to store. You can add colostrum to the same syringe for up to 24hours ,keeping it in the fridge before storing it in the freezer .



Bring your frozen colostrum with you into hospital in a cool bag with a frozen ice pack .

If you are being induced, give this to a staff member who will pop it into the freezer . Remember to label it . It wont take long to defrost once you have your baby .

What you need to know about Antenatal hand expressing

Very occasionally expressing can stimulate mild contractions . If these occur each time you express stop expressing and contact your midwife for further advice

How to Hand Express

1. Gently Massage your breast and nipple
2. Position your thumb and fingers in a 'C' shape about 2-3 cm from the base of your nipple.
3. To Express, gently compress and release , compress and release and repeat until your colostrum begins to flow.
4. Avoid sliding your fingers over the skin
5. You may only get very small drops , but that is normal . When your baby is born their tummy is small and this is extra milk, collect these drops on the spoon provided .
6. When the milk flow slows down or stops , move your fingers round your breast and repeat. Then move to the next breast .
7. Draw up the collected colostrum into the syringe provided and cap the syringe off .Place syringe into the fridge . You can add to this syringe for 24 hours .
8. Label the syringe with a patient label and write on the date and time of last expression . Store in the freezer until needed
9. Bring your frozen colostrum into hospital in a cool bag



For more information on how to express watch this short film

<https://www.unicef.org.uk/babyfriendly/baby-friendly-resources/breastfeeding-resources/hand-expression-video/>

Your milk supply will increase once baby is born usually around day 3-4 .
 You can contact the infant feeding team on 01905 760 507 for further information

Appendix 8- Cleaning of breast pump kits/ feeding with breastmilk equipment

INFECTION CONTROL TEAM July 2012

Cleaning Procedure for Breast Pump Kits

CLEANING PROCEDURE FOR BREAST PUMP KIT



STEP 1 – Name breast pump funnel for individual patient when issued



STEP 2 – Gather equipment; individual bowl, used breast pump kit, Clinell wipes, detergent, individual brush for cleaning



STEP 3 – Disconnect valve from the funnel



STEP 4 – Measure 1ml of detergent (1squirt is 1ml) then fill bowl to fill level (1 litre) with hot water



STEP 5 – Immerse breast pump under water to clean with brush



STEP 6 – Ensuring inside valve housing is cleaned by inserting the brush



STEP 7 – Rinse thoroughly with hot running water



STEP 8 – Dry funnel and valve with clean soft blue roll, remove as much water as possible



STEP 9 – Rinse and dry bowl with soft blue roll



STEP 10 – Line dried bowl with clean, dry blue roll for storage of clean kit

Use only milk kitchen sink
Please do not leave your kit, bowl or brush in the milk kitchen



STEP 12 – Using a clean Clinell wipe, clean the outside surface of the pump tubing.



STEP 13 – Dispose of used wipes into black bin



STEP 14 – Using a new sanitising cloth wipe breast pump, from top to bottom. Dispose in black bin.



STEP 15 – Place clean, dry breast pump kit on locker for storage until next use..Cover with clean dry blue roll

M:\Acute\InfectionControl\Trust\FORMS&SIGNS\Posters\Decontamination Posters\Breast Pump Cleaning Poster July 2012 V1 – Heather Gentry, Lead Nurse IPC Team, Penelope Turton, Breast Feeding Co-ordinator