

BREAST MILK EXPRESSION • 1/2

RATIONALE

- Breast milk feeding, even partial, reduces risk of necrotising enterocolitis (NEC) and improves cognitive outcomes in preterm babies
- Human milk is important in establishing enteral nutrition
- Any amount of mother's fresh breast milk is better than none
- Physician advocacy has a strong influence on intention to feed

GENERAL

- Early initiation (within first hour of birth) is associated with adequate milk supply at 2 weeks
- Recognise that building a milk supply is a challenge for mothers who are separated from their babies and they will require consistent face-to-face support
- Electric breast pumps used in hospital should have the following characteristics:
 - easy to assemble and disassemble with all parts able to withstand sterilisation methods
 - fully automatic, with a cyclic suction rhythm that mimics baby suckling
 - vacuum strength ≤ 250 mmHg, and easily regulated
 - separate drive and suction system to ensure no contamination from milk spillage can enter pump
 - collection system enabling milk to be pumped directly into storage container with universal thread, to avoid need to transfer milk to another container for storage or administration
- Advise mothers to:
 - bath or shower daily
 - wash hands thoroughly with soap and running water before expressing
 - gently massage breast and stimulate nipple to trigger milk ejection reflex before milk expression
 - complete expressing log

MILK COLLECTION

- Sterilise milk collection utensils before use
- Commence milk collection as soon as possible following delivery (preferably within 2 hr)
- Frequency of expression: 8–10 times/24 hr (not leaving a gap >6 hr overnight)
- Teach all mothers hand expression
- Use hand expression to express colostrum and collect milk obtained via a syringe ([see Nutrition and enteral feeding guideline for advice on colostrum collection](#))
- When milk obtained is sufficient to flow easily into storage container, teach mother to use electric breast pump
- Encourage simultaneous (double) pumping of both breasts
- Ensure mother has a properly fitting breast shield (funnel), size is determined by comfort

TECHNIQUE

- Ensure mother seated in comfortable straight-backed chair and keep clothing away from breast while expressing milk
- Support breast from underneath with fingers flat on ribs and index finger at junction of breast and ribs with nipple positioned centrally in shield (funnel)
- Adjust suction control for comfort
- Use gentle pressure to obtain patent seal between breast and shield. Firm pressure will inhibit milk flow by compressing ducts
- Use gentle breast compression during expressing to increase efficacy of electric pump
- Empty breasts as thoroughly as possible since fat content increases as breast is drained
- If using a single pump, switch to second breast when milk flow slows
- Use a new bottle for each expression
- Leave a space of 1–2 cm at the top of each bottle to allow for expansion during freezing
- Following expression, wash equipment in hot soapy water with a bottle brush and rinse before sterilisation
- Encourage mothers to practice 'kangaroo care' also known as skin-to-skin holding ([see Kangaroo care guideline](#))
- Encourage mothers to express where they feel most comfortable; either close to baby or with baby picture/memento
- Complete expressing assessments at least once within the first 12 hr following delivery and ≥ 4 formal expressing assessments in the first 2 weeks (optimise milk production and address any issues related to expressing)

BREAST MILK EXPRESSION • 2/2

Problems related to milk expression

Sore nipples

- Centre milk expression shield
- Try a variety of shield sizes
- Check pump vacuum
- Stop pump before removing shields
- Do not use plastic-backed breast pads
- Change breast pads frequently

Too little milk

- Increase kangaroo care (skin-to-skin)
- Express close to baby's cot
- Check frequency and duration of pumping
- Check shield (funnel) size
- Encourage breast compression during expression
- Increase frequency of expression sessions
- Consider cluster expressing – mothers express 2 or 3 times in 4 hr period
- Consider enhancing prolactin secretion using domperidone
- Praise provision of expressed milk, no matter how small

PARENT INFORMATION

- See www.unicef.org.uk/babyfriendly
- Small Wonders DVD