

Collecting Colostrum During Pregnancy (Harvesting)

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1. Purpose of guideline

Promoting, protecting and supporting breastfeeding is at the core of our care of women in any Auckland DHB setting. This guideline will provide safe, effective, research based education for staff to assist women who wish to harvest their colostrum antenatally.

The aim is to increase the rate of exclusive breastfeeding from birth and reduce the risk of infants developing hypoglycaemia in the first few hours of life.

2. Guideline management principles and goals

Antenatal expression of colostrum is the hand expression and collection of colostrum during pregnancy. Expressed colostrum is collected by the woman and then frozen to be used to feed the baby, if required, after birth.

The *Ten Steps to Successful Breastfeeding*, *The International Code of Marketing of Breast-milk Substitutes* and the World Health Assembly resolutions, form the benchmark for promoting exclusive breastfeeding as the optimal nutrition for infants.

For the purposes of this guideline, particular references to Step Three and Step Six of the *Ten Steps to Successful Breastfeeding* are made.

Step Three states: “Inform all pregnant women about the benefits and management of breastfeeding.”

Step Six states: “Give newborn infants no food or drink other than breast milk, unless medically indicated.”

Medical indications to give any other food or drink to a newborn infant:

- Preterm, very low birth weight; less than 32/40 gestation and weighing less than 1500g
- Hypoglycaemia BSL <2.6mmol/L where there is insufficient breast milk immediately available
- Clinical dehydration
- Significant weight loss > 10% of birth weight, after an assessment of baby and breastfeed
- Phenylketonuria. Some breastfeeding is possible, but feeds need to be partly replaced by Phenylketonuria free formula
- Severe hyperbilirubinaemia
- Maternal absence when expressed breast milk cannot be regularly available
- Maternal HIV
- Maternal chemotherapy
- Maternal Radioactive treatment (131)
- Maternal medication, some epileptic medication, illicit drug use
- Lyme disease (a tick borne disease)

Note: All severely ill babies are likely to be in NICU with individual plans.

3. Who will benefit from antenatal colostrum expressing (harvesting)

Any expectant mother can express her colostrum from 36/40 gestation.

It is particularly useful if the baby is at increased risk of having low blood sugars in the first few hours after birth, this can include:

- **Women:**
 - With diabetes in pregnancy (pre-existing or gestational)
 - Having elective caesarean sections
 - With breast hypoplasia
 - With PCOS
 - Who have had breast surgery (including breast reduction)
 - With hypertension
 - With a strong family history of dairy intolerance or inflammatory bowel disease
 - With previous poor milk supply
- **Infants:**
 - Diagnosed with cleft lip and/or palate and other congenital abnormalities
 - With intrauterine growth restriction – IUGR/SGA
 - Large for Gestational Age (LGA)

4. Precautions

Advise all women who will be harvesting colostrum that they may experience some uterine contractions (Braxton Hicks), this is not a concern unless they become regular and painful.

STOP hand expressing and rest. Notify their LMC.

5. Contraindications

Do not harvest colostrum if:

- Reduced fetal movements
- Any vaginal bleeding
- There is a history of threatened/actual preterm labour
- Cervical incompetence
- Placenta Praevia
- Multiple pregnancy
- Cervical suture in situ
- HIV
- Receiving chemotherapy
- Some maternal medication, e.g. some anti-epileptic medication, some antidepressants. **Check with Lactation consultant.**
- Illicit drug use
- Lyme disease

6. How to hand express

For video:

www.stanford.edu Keywords: *Hand Expressing Milk* - to view a how-to video

7. How much colostrum to expect

It is important to be aware of the wide variation in the volume of colostrum each woman can express antenatally.

There is no evidence that a woman who can express small amounts is at risk of a low milk supply and vice versa.

The Diabetes and Antenatal Milk Expressing (DAME)¹ study (Forster et al, 2014) found that the volume varied depending on the number of expressions, length of time between onset of expressing and birth, and the time spent expressing, with a median of 14 days of expressing and 40mL (range 5 to 310mL) obtained.

8. Storage

Guidelines for storing expressed breast milk

Storage conditions	Storage time	Comments
Room temperature (< 26°C)	4 hours	Cover containers and keep them as cool as possible
Refrigerated – fridges should operate at 2-4 °C	48 hours	Store milk in the back of the main body of the fridge
Frozen: freezer box in refrigerator	2 weeks	Store milk toward the back of the freezer, where the temperature is most constant
Separate door fridge/freezer	3-6 months	
Separate deep-freeze	6-12 months	

Refer to Women's health, Expressing Colostrum Antenatally *pamphlet which also includes* information on the storage and transportation of expressed breastmilk .

<http://nationalwomenshealth.adhb.govt.nz/healthprofessionals/publications/patient-information-sheets/>

¹ The DAME trial is the first study that provides rigorous evidence regarding the practice of antenatal expression of colostrum in late pregnancy for women with diabetes in pregnancy.

As the study demonstrated this practice was found to be safe and effective for this high-risk group, it also concluded that it would be safe for other women as well.

9. Documentation

Individual plans and details of harvesting will be clearly documented in the woman's care plan on Healthware so she can continue to be supported in her efforts.

10. Supporting evidence

- UNICEF. (1991). *Ten Steps to Successful Breastfeeding* (the interpretation of Step Four was clarified by WHO/UNICEF in the BFHI Revised, Updated and Expanded for Integrated Care documents Jan. 2006 and adopted by New Zealand.
- Forster, D.A., Jacobs, S., Amir, L.H., Davis, P., Walker, S.P., McEgan, K., ... & McNamara, C. (2014). Safety and efficacy of antenatal milk expressing for women with diabetes in pregnancy: protocol for a randomised controlled trial. *BMJ open*, 4(10), e006571. Retrieved from <http://bmjopen.bmj.com/content/4/10/e006571>
- New Zealand Breastfeeding Alliance (NZBA).
- Australian breastfeeding Association.
- Royal Woman's Hospital, Brisbane.
- Mid Essex Hospital Service. (NHS Patient information).
- Stanford Medicine. (n.d.). *Hand Expressing Milk* [Video file] Retrieved from - <http://med.stanford.edu/newborns/professional-education/breastfeeding.html>
- World Health Organisation (WHO). (1981). *International Code of Marketing of Breast-milk Substitutes*. (WHO Code) and Relevant World Health Assembly (WHA) Resolutions. (2005).

11. Associated documents

- Breastfeeding policy
- Collecting colostrum during pregnancy and storing, freezing and transport of expressed breast milk
- Management of neonatal hypoglycaemia
- Management of maternal hypoglycaemia
- Recommendations for breastfeeding: A guide for mothers (antenatal and postnatal booklets)

12. Disclaimer

No guideline can cover all variations required for specific circumstances. It is the responsibility of the health care practitioners using this Auckland DHB guideline to adapt it for safe use within their own institution, recognise the need for specialist help, and call for it without delay, when an individual patient falls outside of the boundaries of this guideline.

13. Corrections and amendments

The next scheduled review of this document is as per the document classification table (page 1). However, if the reader notices any errors or believes that the document should be reviewed **before** the scheduled date, they should contact the owner or [Document Control](#) without delay.