

How breastfeeding

works

During pregnancy your breasts change and develop to be ready to make milk for your baby. Milk is there even when your baby is born prematurely. The amount usually increases greatly a few days after birth (the milk *comes in*). The first milk in the breasts after the birth, and often before, is called colostrum. This thick, yellowish milk is more concentrated than mature milk. It is rich in protein and antibodies that help to protect your baby from illness. Your baby only needs a small amount of food in the first few days after birth. Mature breastmilk, which is thin and bluish-white in appearance, gradually replaces colostrum over this time.

When milk is expressed from your breasts, by either your baby suckling or hand expression, tiny nerves in the nipple are stimulated. This causes the release of hormones into your bloodstream. One of the hormones (prolactin) activates the milk-making tissues. The other hormone (oxytocin) causes the breast to push out or *let down* the milk (also known as Milk Ejection reflex).

The advantages of breastfeeding a premature baby

Preterm milk contains even more infection-fighting antibodies than the milk of mothers who give birth at full term. This is important because your premature baby's immune system is immature and she/he is less likely to cope with a variety of infections for which she/he is at risk. Preterm milk also has higher levels of nutrients that meet the nutritional requirements of your premature baby, such as protein, sodium, iron and chloride.

Having a preterm or sick baby also brings many challenges. Establishing and maintaining your milk supply can be difficult due to the emotional upheaval of having a baby in the SCN. Concerns may include worrying about your baby's condition, being separated from your baby, and feelings of tiredness, to name a few. This stress can inhibit your milk producing hormones from working effectively.

To build or increase your supply the following ideas may help.

- Make sure you are getting enough rest and eating a well-balanced diet. Breastfeeding mothers can consume 500 extra calories per day. SCN has a room that could be provided for rest when not in use. Please ask staff if the room is available.
- The importance of relaxing and engaging with your baby cannot be over emphasized. To allow milk ejection (let down) the hormone Oxytocin needs to be stimulated. This can be achieved by being comfortable and relaxed, free of pain, neither hungry nor thirsty and either looking at your baby, looking at a photo of your baby if at home, listening to a recording of your baby or smelling an article of clothing or blanket worn by your baby.
- Some mothers have a warm drink first or listen to soft music. Warmth (expressing after a warm shower, warm face washers on the breast for a few minutes before starting) may also help.
- Increase the skin-to-skin time (kangaroo care) spent with your baby, ideally just before expressing to stimulate the breastfeeding hormones.
- Read the fact sheet on Expressing Breastmilk found in your breastfeeding pack or in the expressing room.
- Use a double electric hospital grade pump, whenever possible, especially if expressing full time.
- If expressing every 3 hours during the day and 4 hourly at night is not maintaining your milk supply, you can try in a 24-48 hour period to increase your pumping times to second hourly during the day and three hourly overnight. More frequent pumping has been shown to have greater effectiveness than longer pumping sessions.

- Some mothers find doing “breast compression” to help drain the breasts can result in greater volumes of milk. Breast compression means squeezing your breast gently (squeeze where the breasts meet the ribs, with fingers on one side and thumb on the other) while expressing.
- Hand expressing after electric pumping has finished can also prove beneficial for some women in obtaining higher volumes of milk.

Galactagogues (substances claimed to increase supply)

- Galactagogues are foods, herbs or medications that can help to increase breastmilk supply. The use of a galactagogue requires consultation with a lactation consultant and/or medical adviser.
- Galactagogues only work when breastmilk is being removed frequently and effectively from a mother’s breasts. When all factors contributing to a low supply have been identified and addressed, then galactagogues may help to speed up the process.
- While there are many substances that have been used by mothers for centuries that are claimed to help them make more breastmilk, there is limited scientific evidence to prove their effectiveness. Many cultures have special foods that are thought to enhance milk production. These vary and may contain active ingredients to fulfil this purpose.
- Prolactin is a woman’s main breastmilk producing hormone. Most medications that act as galactagogues work by increasing prolactin levels.

Examples of Galactagogues:

- **Domperidone (Motilium™)**

Domperidone is a prescription drug used for decades for gastrointestinal disorders. There have been a couple of quality scientific studies done which show that domperidone appears to be an effective galactagogue too. These studies suggest that domperidone has few side effects. However, there have been recommendations that domperidone not be used in women with a history of cardiac problems.

- **Metoclopramide (Maxolon™)**

Metoclopramide is another prescription drug used to treat gastrointestinal disorders. Metoclopramide has been used for nearly three decades to increase breastmilk production. However, it crosses the blood-brain barrier, unlike domperidone. This means that metoclopramide has the potential to cause central nervous system side effects such as restlessness, drowsiness, fatigue and depression in mothers.

One recent (2011) well designed study compared domperidone and metoclopramide as galactagogues. This study showed that there were no statistically significant differences between these two drugs in terms of increased milk production or side effects. This study found that, both domperidone and metoclopramide were very effective at increasing breastmilk production and had minimal side effects.

- **Fenugreek**

Fenugreek is enjoyed in many parts of the world as a culinary herb/spice. It is known to be quite nutritious, containing protein, iron, vitamin C, niacin and potassium. Fenugreek has historically been used as a galactagogue for both human mothers and dairy animals throughout the world and is one of the oldest documented medicinal herbs. There is limited formal scientific evidence on fenugreek as a galactagogue. Further well designed human trials are required before its potential efficacy as a galactagogue can be established.

Conclusion

A galactagogue works best when a mother has low prolactin levels (i.e. when there is a genuine, not a perceived, low milk supply issue), and after a mother has received support and education to improve her breastfeeding or expressing technique. It will only work in conjunction with improved management of regular and efficient milk removal.

References

Australian Breastfeeding Association, Fact Sheet: Expressing and Storing Breastmilk, 2013, online access date 6 May 2015, <https://www.breastfeeding.asn.au/bf-info/breastfeeding-and-work/expressing-and-storing-breastmilk>.

West,D., Marasco,L. 2009. *The Breastfeeding Mother's Guide to Making More milk*, The McGraw Hill Companies, New York.