Primary milk insufficiency syndrome
Although most mothers are capable of breastfeeding successfully, approximately 5% of breastfeeding mothers will not produce enough milk to provide adequate nutrition for their infant, despite establishing a correct feeding pattern and feeding technique. This does not mean that they should stop breastfeeding their baby but that they will need additional supplementation throughout the breastfeeding period. (1)

Mothers at risk of primary milk insufficiency include:
• Mothers with undiagnosed retained placenta.
• Mothers who have undergone breast surgery, especially procedures which involve periareolar breast incisions. (1)
• Mothers who have had excisional biopsies, breast abscess drainage, breast reduction surgery and augmentation mammoplasty.
• Mothers who report minimal or no breast enlargement during pregnancy. Such women may have breast hypoplasia, with marked reduction of breast tissue in one or both breasts. (2)
• Mothers who report no breast fullness in the postnatal period.
• Mothers with severe illness such as postpartum haemorrhage with Sheehan's Syndrome, infection and hypertension.

Secondary milk insufficiency syndrome
Secondary milk insufficiency syndrome is far more prevalent than primary and refers to an inadequate milk supply that results from one or more breastfeeding difficulties.

Secondary milk insufficiency syndrome may diminish rapidly in the face of maternal or infant difficulties (for more information on the physiology of milk production, see factsheet 3: The normal baby). Secondary milk insufficiency is preventable and can be remedied if recognised early and effective breast stimulation and drainage is initiated. (2)

Maternal factors contributing to secondary milk insufficiency:
• Unrelieved postpartum engorgement
• Infrequent and ineffective breastfeeds
• Nipple pain
• Mother-baby separation
• Severe caloric restriction

When breastmilk is not enough

The hallmarks of successful breastfeeding are usually present within the first week of birth. Warning signs of lactation failure require early follow-up and intervention.
Infant factors contributing to secondary milk insufficiency:

- Small-for-dates or premature babies
- Abnormality of oral structures (for information on tongue tie see fact sheet 5: Nipple pain)
- Hypo or hypertonia, cardiac disorders or respiratory disease
- Sleepy, undemanding babies
- Hyperbilirubinaemia – especially jaundice requiring phototherapy
- Excessive use of pacifier
- Newborn babies sleeping more than 5-6 hours at night
- Babies who receive regular supplements of formula or glucose and water.

Summary of assessment criteria for effective breastfeeding

- Baby’s weight (see criteria for referral for when to refer to specialist in, see factsheet 3: the normal baby).
- General health. Signs of dehydration may not be visible until water loss is severe (>15%) in breastfed babies. Consider prompt referral for laboratory analysis in any baby whose weight loss exceeds 12% of birth weight.
- Observation of a breastfeed by a lactation specialist if possible.
- Elicit frequency and duration of feeding, stooling and voiding patterns, pacifier use, infant hydration and presence of jaundice.
- Elicit maternal reports of postpartum engorgement, difficulties with milk flow and complaints of sore nipples.

Treatment

- Ensure correct positioning and attachment
- Encourage feeds at least 10-12 times in 24hrs.
- If baby is unable to feed, express and feed expressed breast milk
- Tell mother to feed from both breasts at each feed and switch from side to side to keep baby awake if necessary
- Encourage mother to ask for help with other children and household chores so she can concentrate on feeding for a few days

Mothers whose babies are not extracting sufficient milk and require supplements will benefit from using a breast pump to maintain their supply. An electric pump is the most efficient. Using a pump to express milk from the breast after the baby has breastfed allows the mother to maintain an adequate milk supply and provides breast milk supplements as top-ups for her baby. She should pump for 10-15 minutes using a dual collection system, if possible, to drain both breasts simultaneously. The high fat, calorie-dense hind milk can be used to supplement the baby, with additional formula being used only when the availability of breast milk is insufficient to maintain infant nutritional requirements.

References