The Little Green Book of Breastfeeding Management for Physicians & Other Healthcare Providers

6th Edition

Anne Eglash MD, IBCLC, FABM
Kathy Leeper MD, IBCLC, FABM
Gail S. Hertz MD, IBCLC, FABM
# Table of Contents

## A. The Basics
- a) Bioactive Components of Breastmilk ........... 9
- b) Why It Is Important to Breastfeed ............ 10
- c) How to Read the Literature ..................... 11
- d) Conditions Necessitating BF Caution .......... 13
- e) Current BF Recommendations ................. 14
- f) Anatomy And Physiology ....................... 15
- g) Counseling Families On Infant Feeding Decision And Prenatal Support .................. 18
  - i. Prenatal Red Flags For BF Problems ...... 20

## B. Breastfeeding Policies That Impact Public Health
- a) Baby Friendly Hospital Initiative ............. 20
- b) International Code of Marketing of Breastmilk Substitutes .......................... 21

## C. The Immediate Postpartum Period
- a) The Golden Hour ..................................... 22
- b) Skin-to-Skin .......................................... 23
- c) Positioning And Latch ............................. 24
- d) Rooming-In ........................................... 25
- e) Feeding Frequency ................................... 26
- f) Pacifiers .............................................. 27
- g) Weight Loss .......................................... 28
- h) Stools .................................................. 28

## D. Problems During The Postpartum Hospitalization
- a) Jaundice .............................................. 29
- b) Hypoglycemia ...................................... 31
- c) Delay In Lactation ................................. 31
- d) Supplementation- Indications ................. 32
- e) Supplementation- Options ...................... 33
The Infant Who Will Not Latch .......................... 34
Sore Nipples.................................................................. 35
Tongue-Tie........................................................................... 37
Late Preterm........................................................................ 38
Prematurity.......................................................................... 40

E. The First Week After Hospital Discharge
   a) Office Follow-Up- First Visit ................................. 41
   b) Topics of Discussion The First Week............... 43
      i. Support At Home ......................................... 43
      ii. Vitamins And Supplements........................... 44
      iii. Infant Feeding Schedule ................................. 44
      iv. Variations In Milk Supply ............................... 45
      v. Changes In Stooling ........................................ 45
      vi. Pumping ....................................................... 45
      vii. Night Time Feedings .................................... 46
   c) Common Problems The First Week .............. 46
      i. Excessive Feeding Frequency ....................... 46
      ii. Slow Weight Gain ........................................... 48
      iii. The Sleepy Infant ......................................... 49
      iv. Jaundice ......................................................... 49
      v. Engorgement ................................................... 49
      vi. Sore Nipples .................................................. 50

F. General Breastfeeding Medicine Topics
   a) Acute Nipple/Breast Pain ................................. 51
   b) Chronic Nipple/Breast Pain ............................... 58
   c) Imaging The Lactating Breast .......................... 60
   d) Breast Surgery And Radiation .......................... 61
   e) Low Milk Supply- Perceived And Real ......... 62
   f) Galactogogues ..................................................... 66
   g) Hyperlactation (Excess Milk) ...................... 68
Low Milk Supply

Perceived Low Milk Supply

There are many reasons why mothers PERCEIVE they are not making enough milk, when in fact they are. Breastfeeding is a confidence game. If a mother interprets infant feeding behavior or breast changes as a loss of milk supply she may decide to supplement the infant with formula, leading to a decrease in production due to less frequent feedings at the breast. Changes in feeding routines that mothers may interpret as low supply include:

- Feeding more frequently than expected
- Infants with a high suck need
- Constant infant fussiness
- Infant rejection of the breast
- Decline in breast fullness after 2-4 months postpartum
- Decrease in infant stooling
- Bottle preference

Mothers should be encouraged to see a provider or lactation specialist to help determine if these changes are due to low supply or something else. An infant weight is crucial to sort this out. Therefore, this is not an evaluation that can be done over the telephone.

Real Low Milk Supply

There are also many reasons why a mother has a truly low milk supply. It helps to divide causes of low milk production into problems originating prenatally, intrapartum, and postpartum.
Prenatal Causes of Low Milk Supply

The most likely prenatal cause of low supply is insufficient breast development, called “Insufficient Glandular Tissue” (IGT) or “breast hypoplasia”. There are a variety of hormonal or anatomic problems associated with this phenomenon, all of which are not completely understood.

• **Hormonal**- breast development during pregnancy is under the influence of placental hormones that stimulate new glandular tissue formation. Hormonal problems such as polycystic ovarian syndrome, obesity, pre-eclampsia and diabetes are associated with insufficient glandular development during pregnancy. Current theories include high androgens and/or insulin resistance associated with these conditions.

• **History of breast procedures**- Women with a history of radiation to one breast, such as in cases of breast cancer, will not make milk from the irradiated breast. Breast reduction is also strongly associated with insufficient milk production. Breast augmentation tends to have little effect on milk production. (see section on Breast surgery and Radiation, Pg. 61)
• **Anatomic**- Some women have limited potential to make sufficient glandular tissue, for unknown reasons. These women may notice breast growth during pregnancy, but often have characteristic findings, such as wide spacing between breasts, a lack of ‘rounding’ of the breast, or tubular shaping of the breasts (See Fig 5). Women with very asymmetric breasts often find that the much smaller breast makes much less milk.

![Fig 5.](image)

**Intrapartum Causes of Low Milk Supply**

Some mothers have normal breast growth during pregnancy and no prenatal risk factors for low milk supply. Uncommonly, some mothers notice that the milk never ‘comes in’. Reasons for this include:

• **Retained placental fragments**- Because the drop in progesterone after placental delivery is the hormonal trigger for making milk, retained
placental fragments that continue to secrete progesterone can be associated with lack of lactogenesis II.

- **Pituitary trauma** - This is commonly known as Sheehan’s syndrome, an infarct of the pituitary usually caused by extreme hypotension, which stops the release of prolactin and oxytocin, halting lactation.

- **Theca Lutein cyst** - These are ovarian cysts that secrete testosterone. Testosterone is a strong inhibitor of lactation.

- **Medications** - Some medications given postpartum can markedly impact milk production, including decongestants, high dose steroids, and progesterone given for contraception immediately postpartum.

If there is truly NO milk production, then an evaluation including serum cortisol, prolactin, testosterone, thyroid function testing, HCG, and possibly an ultrasound looking for retained fragments is indicated.

**Postpartum Causes of Low Milk Supply**

By far the most common scenario is that the milk does “come in” fine, but is not removed adequately, resulting in a low supply. REMOVING MILK FROM THE BREAST IS THE MOST POTENT STIMULATOR OF PRODUCTION. Lack of milk removal results in a build-up of the feedback inhibitor of lactation (FIL), which is a substance that communicates with the lactocytes to decrease milk production.