Picasso was the avatar of Steve Jobs, because he saw elegance in simplicity. Can we apply simplicity to breastfeeding support to make a difference? Can we erase the rules, reduce the gadgets and return to a simple, consistent focus, easy to learn and easy to teach? Maybe only what really matters the most, matters at all. In these presentations, I share my thoughts on combining the latest research with the most critical, logical basic goals each new mother needs to understand, from the very first hour, regardless of the scenario of her delivery.

It’s simple to make a case for change in hospital management, when up to 20% of mothers stop breastfeeding by 1 month for primarily preventable problems. Due to demographic factors and obstetrical practices, we are challenged with a growing population of at-risk dyads, primarily those born a little early, who are notorious for suffering from breastfeeding complications. These complications relate to insufficient milk production and suboptimal milk intake and account for delayed discharge, readmission and this early sharp drop off in any breastfeeding.

A simple, proactive approach to care for all dyads might reduce the number of less remedial, time consuming breastfeeding complications. A simple, proactive approach might inspire more healthcare providers, who otherwise shy away from really “being there” to help and share the marvels of becoming a new mother.

So what might this simple, preventative strategy look like? Consider reducing the goals in the first 3 days to only three: A, B and C. A=attachment (achieving a comfortable and effective latch), B=breastmilk (stimulating a robust supply) and C=calorie (insuring the infant’s optimal milk intake). Distill down the critical “grains of truth” about each goal to only two.

A =Attachment:
1. The longer the interval between birth and first feeding, the more likely a baby is to have a dysfunctional suck.
2. Poor attachment improves with uninterrupted contact and optimal milk production

B=Breastmilk production:
1. Production is time sensitive and depends on the early, frequent and effective removal of colostrum from the first hour. The more colostrum removed, especially in the first hour, the more milk a mother will produce.
2. Production, the cornerstone of breastfeeding, is the factor most strongly associated with the duration and exclusivity of breastfeeding.

C=Calorie:
1. You can never over breastfeed a baby in the first 3 days. Put another way, the more colostrum a baby receives, the less likely he/she is to suffer the complications of underfeeding (hypoglycemia, excessive weight loss, jaundice and suboptimal growth).
2. For the term infant, without complications, the needs are small; the reserves are adequate; focus can prioritize A (attachment) and B (breastmilk stimulation). But for the at-risk infant, the needs are higher. So prioritize C and B.

All three goals will be impacted by what a new mother does (or does not do) from the most important first hour after delivery. Learning prenatally the benefits of hand expression (and spoon feeding, if needed) gives expectant mothers the answer to many typical “what if” concerns and prepares her for whatever the outcome of her delivery may be. Unlike a machine, a mother’s touch is quite natural and does not suggest a problem or medicalize milk expression.

From Picasso to Steve Jobs, artists and inventors, and we as teachers, have found that keeping things simple is worth striving for. Building simplicity, repetition, and logic into a didactic setting is key. By making every first hour really count, offering simple skills for these first several days that could prevent the serious complications of insufficient milk production and suboptimal intake, we would enable each mother to exclusively breastfeed, while keeping her newborn safe.

**Practice Changes to Reduce Risks**

1. Make every first hour count in every scenario
2. Low threshold for hand-expressed spoon feeds
3. Prioritize CBA vs. ABC for at-risk dyad.
4. Normalize mother/partner helping hands in 1st hour
5. Change the message: “You have all you need!”

**References:**

AAP’s (American Academy of Pediatrics) Model Hospital Breastfeeding Policy: Safe and Healthy Beginnings: A Resource Toolkit for Hospitals and Physicians’ Offices:  
www2.aap.org/breastfeeding/.../Hospital%20Breastfeeding%20Policy


Carberry AE, Raynes-Greenow CH, Turner RM. Breastfeeding within the first hour compared to more than one hour reduces risk of early-onset feeding problems in term neonates: A cross-sectional study. Breastfeeding Medicine 2013 Dec; 8(6) 513-514.


Goyal NK, Attanasio LB, Kozhimannil KB. Hospital Care and early breastfeeding outcomes among late preterm, early term and term infants. Birth 2014; 41:1 330-338


Hill PD, Aldag JC, Zinaman M, Chatterton RT. Predictors of preterm infant feeding methods and perceived insufficient milk supply at week 12 postpartum. J Hum Lact. 2007 Feb;23(1):32-8


*Jones E. Crossover study measuring expressed milk with and without breast massage. Arch Dis Child Fetal Neonatal Ed. 2001;85:F91-95

Kacica, MA., Kreiger L, Johnson GD. Breastfeeding Practices in New York State Maternity Hospitals: Results from a Statewide survey. Breastfeeding Medicine 2012 7(6) 409


McLaurin KK Hall CB, Jackson EA, Owens OV, Mahadevia PJ. Persistence of morbidity and cost differences between late-preterm and term infants during the first year of life. Pediatrics 2009;123:653-9

Merewood A., Morton JA. Inside Track: Using your hands to express your milk. J Hum Lact 2013. 29: 635

Morton, J., Hall J., Pessl, M. 5-Steps to Improve Bedside Breastfeeding Care: Proposal for a Shared, Sustainable, Proactive Model. 2013. AWHONN’s *Nursing for Women’s Health* Vol 17, issue number 6, pp 478-488.


See: The Perfect Latch, Hand Expression, Maximizing Milk Production


Pre-glandular, Glandular and Post-glandular Causes for Insufficient Milk Production

by Jane A. Morton MD  2003

Two common models for conceptualizing causes for insufficient milk production are maternal vs. infant and primary vs. secondary. Frequently, however, the maternal infant scenario defies neat categorization, as it becomes complicated by a variety of factors contributing to a cascade of events (such as the engorged mother with flat nipples and her sleepy baby with difficulty latching). An alternative conceptual model, based on the traditional construct for renal failure, defines three categories for causes of compromised lactation: pre-glandular, glandular and post-glandular (Table 1). Pre-glandular causes include an unfavorable hormonal profile or systemic conditions. Hormonal causes primarily involve conditions that result in the suppression of prolactin or oxytocin release or activity. Less consistently, endocrinopathies such as thyroid disease and diabetes may also impact lactation. Severe nutritional compromise or profound systemic illnesses also contribute to pre-glandular causes of lactation failure. Glandular causes include primary developmental hypoplasia as well as conditions associated with the disruption of the normal histological architecture of the breast. Post-glandular causes include the multitude of situations that account for delayed, infrequent or ineffective breast emptying. Although no model entirely eliminates overlapping conditions, this format is suggested as a logical framework for approaching the evaluation of insufficient milk production. Organizing and expanding our focus of the differential diagnosis of this common condition may offer more than an intellectual exercise. In some remedial cases, effective management will not be considered if we prescribe a narrow, “one size fits all” approach for all mothers with insufficient milk production. For example, a commonly used treatment regimen for post-glandular causes of impaired production include increasing the frequency of nursing or pumping, improving the effectiveness of emptying (correcting the latch or pumping techniques), and perhaps recommending galactagogues. However, the woman with pre-glandular causes, (for example, the woman with retained placenta, or one who just initiated combination birth control pills) or the woman with glandular causes (a mother who has undergone reduction mammoplasty) would be less likely to respond to this prescription. Of greater concern, a potentially helpful remedy may be delayed or overlooked, without a more thorough investigation of potential contributing factors or conditions. This conceptualization may also be useful for those interested in research. For example, post-glandular causes may correlate with the intensity of a negative inhibitory feedback system. Additionally, with post-glandular causes for delayed lactogenesis, the breastmilk sodium remains elevated for an extended period. Theoretically, these phenomena would be less likely to apply to some pre-glandular and glandular causes, (such as the mother on birth control pills or with reduction mammoplasty). Without sorting these three groups out, investigatory results may be inconclusive or confusing. Finally, as breastfeeding medicine becomes more established in the academic curriculum, using the same conceptual model traditionally used for renal failure provides consistency and logic. (First described: Morton JA. The clinical usefulness of breast milk sodium in the assessment of lactogenesis. Pediatrics.1994; 93(5):802-806.

Dr Morton an Adj.Clinical Professor of Pediatrics at the Stanford University School of Medicine.
<table>
<thead>
<tr>
<th>Factors Contributing to Insufficient Milk Production</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-glandular</strong></td>
</tr>
<tr>
<td>Hormonal</td>
</tr>
<tr>
<td>• Prolactin</td>
</tr>
<tr>
<td>- retained placenta</td>
</tr>
<tr>
<td>- pregnancy</td>
</tr>
<tr>
<td>- Sheehan's syndrome</td>
</tr>
<tr>
<td>- drugs:</td>
</tr>
<tr>
<td>- estrogen containing birth control</td>
</tr>
<tr>
<td>- bromocriptine</td>
</tr>
<tr>
<td>• Oxytocin</td>
</tr>
<tr>
<td>- distraction, stress, fatigue</td>
</tr>
<tr>
<td>- drugs: alcohol, opiates</td>
</tr>
<tr>
<td>• Other</td>
</tr>
<tr>
<td>- ?thyroid disease</td>
</tr>
<tr>
<td>- ?diabetes</td>
</tr>
</tbody>
</table>