Healthy Child Development: Encouraging Breastfeeding: A Practical Approach for the Busy Clinician

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Presented by: First and Last Name

Education | Leadership | Research | Advocacy

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Faculty/Presenter Disclosure

Faculty:

Lisa Graves MD CCFP FCFP

Relationships with commercial interests:

none

Disclosure of Commercial Support

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Potentials for conflict(s) of interest:

There is no conflict or potential conflict of interest related to this presentation to disclose.

Mitigating Potential Bias

[Explain how potential sources of bias identified in slides 1 and 2 have been mitigated]. OR None

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Case-based course covering:

1. Prenatal breastfeeding support
2. Breastfeeding support at birth and in the hospital
3. Infant attachment at the breast – The Latch
4. Breastfeeding and pain
5. Breastfeeding and breast lumps
6. Medications, drugs and breastfeeding
7. Breastmilk production issues

Course Objectives:

- To inform you of the evidence and knowledge base for initiating, supporting and promoting breastfeeding.
- To provide you with basic skills in breastfeeding management, including indications for referral to a lactation specialist.
- To harmonize the information available to all members of the healthcare team.
- To equip you with the knowledge base necessary to make lasting policy and practice changes within the framework of the Baby-Friendly Initiative.

Introduction

Why this is important now…

Education | Leadership | Research | Advocacy

Why are we discussing breastfeeding?

Because...

1. Breastfeeding is good → It saves lives and is cost-effective.
2. Your support makes a difference.

"Can health professionals make a difference?" YES

Physician support increases:

- ✓ **Prenatal intent to breastfeed**
- ✓ **Breastfeeding initiation and duration**
- ✓ **Breastfeeding exclusivity**

Human milk is species-specific

Human milk is for human babies

Cow's milk is for cow babies

Dynamic living fluid produced by the mother to address the changing needs of an infant in its environment.

Shifting paradigms

- Breastfeeding is the normal and natural way of feeding.
- "Benefits of breastfeeding" vs "risks of non-breastfeeding"
- Are breastfed babies at an "advantage", or are formula-fed babies at a "disadvantage"?

Station 1: Prenatal Breastfeeding Support

- Martha is 36 weeks pregnant and a primip.
- You are her family doctor and have followed her pregnancy.
- How do you bring up the subject of breastfeeding and answer her questions during a prenatal visit.

Personal Experience

- Let's take a step back to examine our personal experiences with breastfeeding, as infants, as children, as teenagers and/or as parents.
- Research suggests that personal bias affects the way we offer breastfeeding counselling.
- How can we best acknowledge our experiences, both positive and negative, and offer objective, evidence-based information to our patients?

The Physician's Role

Most before they are even pregnant!

11% after the birth of their baby

26% during pregnancy

Your support is even more important in women who are least likely to breastfeed.

What to say and NOT to say

- Do you want to bottle-feed or breastfeed? **NO**
- What have you heard about breastfeeding? **YES**
- Have you noticed that your breasts are changing in preparation for breastfeeding? **YES**
- Do you have any questions about breastfeeding? **YES**
- Here are some samples and coupons for formula if you ever need. **NO**
- Here are some pamphlets and resources on breastfeeding. **YES**

A neutral attitude toward breastfeeding can be perceived as a negative attitude!

History and physical exam

- Past breastfeeding history:
  - Personal and family hx of breastfeeding lengths and problems.
- Current pregnancy:
  - Support persons and prenatal lactation classes.
  - Ideas about pumping, supplementation, use of bottle.
  - Record issues in chart with plan for f/u or referral.
- Physical exam:
  - Examine breasts and document in chart (nipples, breast surgery, lumps)
  - "You have normal breasts to breastfeed"

WHO Recommendations

Exclusive breastfeeding for the first **6 months** of life, with the addition of complementary foods and breastfeeding continuation until **2 yrs** and beyond.

Endorsed by all major medical organizations
→ CFPC, CPS, AAP, ACOG, CNA.

Guilt and Breastfeeding

- Dr. Myriam Labbok (*Labbok 2008*) → the guilt that some non-breastfeeding mothers feel may be due to the lack of support they received from society/health professionals.
- Physicians have a responsibility to impart objective information about the importance of breastfeeding, in a non-judgemental way.
- Mothers have the right to make an informed decision about their infant feeding decision, and to be supported in their decision.

Breastfeeding really saves lives!

- **1.3** million lives could be saved annually by "optimal breastfeeding" (WHO)
- Formula-feeding is associated with a **1.3 fold** higher risk of infant mortality compared to ever breastfeeding (Stuebe 2009)
- If 90% of families breastfed exclusively x 6 months, an excess **911** deaths/yr in the US could be prevented, of which nearly all would be infants (Bartick and Reinhold 2010).

Risks of formula-feeding for infant (Stuebe A. 2009)

- Double the risk of otitis media in the 1st yr of life
- 3.6-fold increase in risk of hospitalization for lower respiratory tract infection in the 1st yr of life (compared to exclusive breastfeeding x 4 months)
- 2.4-fold risk of NEC
- Increased likelihood of obesity and diabetes type 2 in future

Risks of formula-feeding for mothers (Stuebe A. 2009)

- Higher risk of breast and ovarian cancer
- Higher risk of obesity, type 2 diabetes, cardiovascular disease and metabolic syndrome

Risks of various outcomes in formula-fed infants (USA Surgeon General, 2011)

Outcome among full-term infants	Excess risk (%)
Acute otitis media	100
Eczema	47
Diarrhea+vomiting (GI infection)	178
Hospital for lower resp tract infection	257
Asthma	67 (w/fam hx), 35 (w/o fam hx)
Childhood obesity	32
Type 2 diabetes	64
Acute lymphocytic leukemia	23
Acute myelogenous leukemia	18
SIDS	56
NEC in preterms	138
Breast and ovarian cancer in mothers	4 and 27 respectively

www.surgeongeneral.gov

WHO Code

- **The International Code for the Marketing of Breastmilk Substitutes** was adopted by the World Health Assembly in 1981.
- Agreement between various groups, including infant formula companies, signed by many countries, endorsed by most major medical associations.
- "It is a tool to protect and promote breastfeeding and to ensure appropriate marketing of breastmilk substitutes, feeding bottles, and teats." (IBFAN).

What products does the Code apply to?

Breastmilk substitutes, infant formula, complementary foods for use before 6 months, feeding bottles and artificial nipples.

Baby food

Avent bottles

Nestle

Main points of the WHO Code:

1) No free samples of formula to patients
2) No pamphlets from formula companies
3) Evidence-based patient information material: value of breastfeeding, proper use and indications for formula
4) Disclose all funding/sponsorship from formula companies

The Code does not prohibit the existence of infant formula or the choice to bottle-feed.
Promotion is prohibited, not the sale of the product.

"*The Code tries to level the playing field so that the superiority of breastmilk - which has no Madison Avenue agency or million dollar marketing budget promoting it - is not lost in the landslide of formula marketing hype…*"

- The International Baby Food Action Network (IBFAN) -

Breastfeeding Resources

- Initial breastfeeding assessment by CLSC/community clinic nurse at home visit within a few days postpartum (in Quebec).
- Support groups →
  - La Leche League (www.lalecheleague.org, www.allaitement.ca).
  - Other community-based groups in various provinces.
- Private lactation consultants www.clca-accl.ca (Canada), www.ibclc.qc.ca (Quebec).
- Specialized lactation clinics

Station 2: Skin-to-Skin and Breastfeeding at Birth


Photos: Carole Dobrich

Skin-to-skin immediately after birth

- For how long? → research is saying 2 hours +.
- It can be harmful to separate mother and infant immediately after birth.
- All infant procedures can be done while skin-to-skin, ie. Apgars, erythromycin ointment, ID bands, O_2, suctioning.

Skin-to-skin: the evidence

- Physiological stability *(WHO 2003):* thermal control, glucose regulation, oxygenation, heart and resp rate, lower cortisol levels.
- RCT comparing skin-to-skin to incubator care for first 6 hrs of life, in 34 newborns weighing 1200 - 2199g: Skin-to-skin infants scored higher on physiological stability parameters, compared to incubator infants *(Bergman 2004).*
- Cochrane review → benefits with breastfeeding outcomes and less infant crying *(Anderson 2003).*
- Colonization with mother's bacteria rather than hospital bacteria.

Early breastfeeding

- At birth, place skin-to-skin and allow baby to find its way → use baby's instincts and don't push/shove baby at breast
- **HANDS OFF**
- As little as 15-20 min of early contact near the breast can increase the duration of breastfeeding (WHO 1998).
- Mother-infant separation at birth can be harmful.

For infants at risk of hypoglycemia

- Early skin to skin → maintains infant body temperature and reduces energy expenditure.
- Early breastfeeding → promotes ketogenesis as a way to conserve glucose levels, so that breastfed infants can tolerate lower glu levels w/o being symptomatic!
- Frequent (<q3h), unrestricted feeds of colostrum, or supplement if colostrum not available.
- Formula may be insulinogenic, causing further hypoglycemia in infants.

(Academy of Breastfeeding Medicine Protocol on Hypoglycemia, 2006)

But I have no milk!

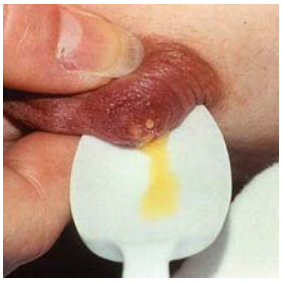


Photo: Jane Morton MD

- How many times have you heard a new postpartum mom say she has "no milk"?
- What can you tell her about her first drops of milk?

Unique composition of colostrum

Characteristics	Colostrum	Mature milk
Timing	Until day 3-5.	Day 3-5 onwards.
Volume	35-100 ml/day	500-800 mL/day.
Lactose	↓er	↑er
Water and minerals	↓H_2O,↑Na, Zn, Cl, Iron	↑H_2O → 87.5%
Fat content	2%	3.5-4.5%
Protein, immune factors	↑proteins, sIgA, WBCs → immune coating.	0.8-1% total protein.
Gastrointestinal effect	Laxative, establishes bifidus flora in gut.	

4 Steps to Success

How can you facilitate breastfeeding success at birth and during the hospitalization?

1. **Immediate and prolonged skin to skin**
2. **Early and unrestricted contact with the breast**
3. **Breastfeeding on demand:**
   - **8-14 times in 24 hrs, every1-4 hrs**
4. **Rooming-in**

What about your hospital/institution?

- What are the challenges you face with establishing breastfeeding early on?
- What are some potential solutions?

Station 3: 1st Postpartum Visit/Latch

- Michelle is 48 hrs postpartum and is getting ready for hospital discharge.
- She is exclusively breastfeeding.
- She has nipple pain and both her breasts are swollen and hard since the morning.
- You are doing your final assessment before discharge and she has many questions.

The key to breastfeeding success...

- What is the ONE aspect of breastfeeding that is so important, so vital to success, especially early on?
- What, if properly established, can avoid many breastfeeding problems like → early weaning, poor milk supply, nipple pain and trauma?
- What is the most common cause of early nipple pain with breastfeeding?

THE LATCH

The all-important latch

Photos: Goldfarb Breastfeeding Program

A poor latch can lead to nipple trauma/pain, low milk production and early weaning.

Bringing the baby to the breast

Photo: Frank Roop and McGill Instructional Multimedia Services

To summarize, a good latch means...

- Nose is away from breast
- Chin is touching breast
- Mouth is wide open → most of lower areola in mouth
- Head is back
- Lips are everted
- Tongue is down

If it hurts, it's not right!

So do we have to fix the latch ourselves?

NO!

- Step 1 → Importance of recognizing a poor latch, and identifying that there is a problem.
- Step 2 → Appropriate referral.

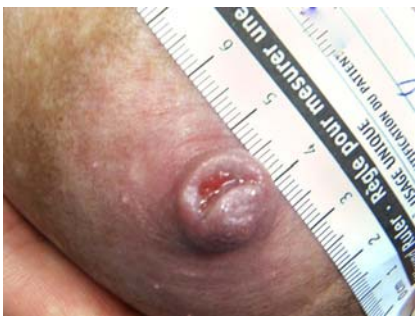
Nipple trauma

- Optimize latch
- Can try expressing breastmilk on nipple
- Can also try:

All Purpose Nipple Ointment to apply after each feed:
- 15g 2% mupirocin ointment,
- 15g 0.1% betamethasone ointment,
- and miconazole powder to make [2%].

- Silicone dressings: indications, how to use, types

Open nipple wound



Goldfarb Breastfeeding Clinic

Signs of adequate hydration in infant

Urine: 1 wet diaper for each day of life, until day 6 → then at least 6 heavy wet diapers/24 hrs. (one on day one; two on day two)

Stools: yellow, soft stools by day 5 of life.

Activity: alert baby, waking up at least every 1-4 hrs to feed.

Breast: fullness vs. softness after feeds.

Weight: 7-10% weight loss regained by day 10-14, then 20-30g/day.

Review: 1st week of baby's life at a glance

Day 1: usually sleepy, erratic feeds, 1 wet diaper, meconium

Day 2: more alert and demanding, frequent feeds

Day 3-5: transitional milk, breast fullness, green/brown stools; no more weight loss

Day 6 +: mature milk, yellow seedy stools, 6 heavy wet diapers, weight gain 20-30g/day

Day 10-14: return to birth weight

Choices for supplementation:

Mother's own pumped milk

↓

Pasteurized donor milk

↓

Artificial infant milk/formula

Hospital discharge and follow-up

Who will follow-up breastfeeding after discharge?

- Visit with health care provider: day 2-3 postpartum
- Visit with physician at 1-2 wks postpartum
- Refer to more specialized breastfeeding clinics if problems arise

Station 4: Techniques related to breastfeeding

Manual expression

- If mother and infant are separated, or if infant isn't able to latch on successfully, then what do we do?
- Start pumping?? Or how about manual expression?
- Manual expression works better to extract the thick, honey-like colostrum than a breast pump.
- According to the WHO, all new mothers should learn how to manually express while in hospital → fast and easy, no need for equipment.

The art of manual expression

- POSITION the thumb and 1st fingers about 1 - 1 1/2 " behind the nipple on the areola.
- PLACE the thumb above and the fingers below, i.e. 12 o'clock and 6 o'clock position.
- PUSH straight into the chest wall.
- ROLL thumb and fingers forward as if making thumb and fingerprints at the same time.
- REPEAT and RHYTHMICALLY ROTATE thumb and finger position around the breast to drain different areas.
- DROPS of colostrum can be collected in an infant feeding cup or spoon and fed directly to the baby.

Nipple shields

- Flexible silicone nipple worn over mother's nipple during breastfeeding
- Indications for use →
  - Preterm infants with poor/weak suction
  - Flat or inverted nipples
  - Maternal nipple pain
  - Non-latching baby who has received bottles

Breast pumps

- Manual vs. electric
- Single vs. double
- Importance of checking flange size
- What to do if mom says it's painful when she pumps?
- Indications to pump
- When to pump

Alternative feeding devices


Photo: Goldfarb Breastfeeding Clinic

a lactation device at the breast


Photo: Mélanie Gingras, IBCLC

dropper feeding


Photo: Goldfarb Breastfeeding Clinic

cup feeding


Photo: Dr. Jack Newman

finger feeding


Photo: Mélanie Gingras, IBCLC

spoon


Photo: Microsoft Office Online

bottle

Station 5: Pain

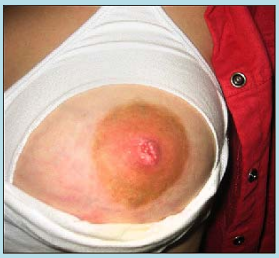


Photo: Goldfarb Breastfeeding Clinic

- Anais is 1 month postpartum
- She is suffering from breast and nipple pain
- You reviewed her latch and positioning technique and felt it was adequate
- What else do you want to know?
- What is your differential diagnosis?

OUCH ! What could it be?

Approach to breast/nipple pain:

- Take 5 minutes for a brief history and physical exam
- Most common cause of breast/nipple pain: **LATCH**
- What else could it be?

What if the breast looked like this?

Risk factors for mastitis

- incomplete breast emptying leading to milk stasis
- nipple fissures, cracks or sores from a poor latch
- change in frequency of feeding (either more or less frequent)
- stress/fatigue, or maternal illness
- maternal anemia or malnutrition
- pressure on the breast (tight bra, car seatbelt)

Examination:

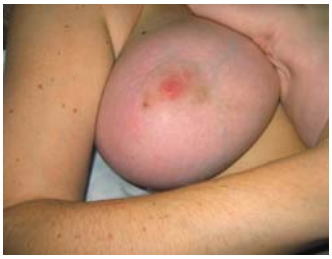


Photo: Goldfarb Breastfeeding Program

- may be an abrasion on nipple
- tender axillary nodes
- hot, painful, hard, red area of the breast

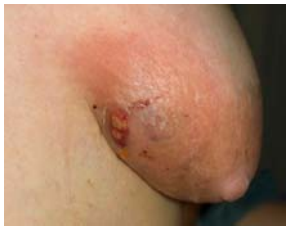
What is the bacteriology?

- staph aureus most commonly
- beta-hemolytic strep
- H. flu
- coagulase negative staph
- strep phaecalis
- E. coli

Management of mastitis

- Cold compresses
- Breastfeed and/or extract milk often → have baby nurse on affected side first
- NSAIDs
- Antibiotics for 10-14 days:
  - Cloxacillin (500 mg qid), Cefadroxil, Cephalexin, or Amoxicillin-Clavulanic acid (875 mg bid)
  - If allergic to Penicillin → Clindamycin (300 mg tid/qid)
- **Correct the latch!!!**

Abscess



Can develop from a mastitis:

- If treated within 2.7 days, low risk of abscess.
- If treatment delayed > 4 days → 11% risk of abscess.
- General risk of abscess formation is 5-11%.

Management:

- Ultrasound
- Drainage by needle or open

What do you think of this story?

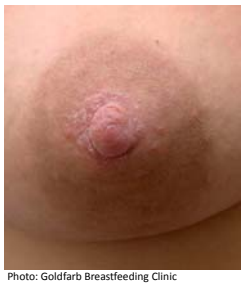


Photo: Goldfarb Breastfeeding Clinic

- Anais has deep burning breast and nipple pain, shooting to the axilla and back.
- The pain is most prominent at the end of feeds and in between feeds.
- There is shiny flaky skin on the nipple and areola.
- She has recently finished a course of antibiotics for sinusitis.

Diagnosis?

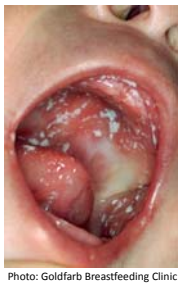


Photo: Goldfarb Breastfeeding Clinic

Candida:

- 1% Gentian Violet in aqueous sol'n qd for mother and infant x 4 - 7 days
- Grapefruit seed extract 250 mg TID PO
- Fluconazole 400 mg stat, then 100 mg bid x 2 - 4 weeks; 3-6 mg/kg for infant prn
- Oral nystatin liquid 1 - 2 ml qid for infant IF there are signs of thrush.
- Probiotics for the mother as adjunctive or preventive treatment.
- Canesten cream

Case: Itchy, painful rash on breast

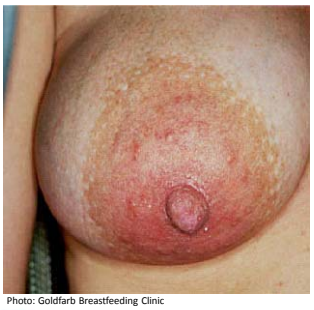


Photo: Goldfarb Breastfeeding Clinic

Severe eczema with bacterial superinfection

Nipple vasospasm

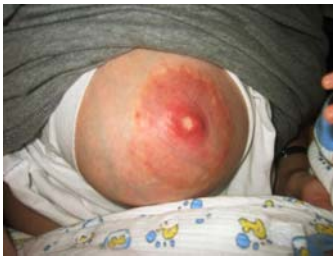


Photo: Goldfarb Breastfeeding Clinic

Pain during or in between feeds, associated with the nipple turning white, purple or deep red.

Treatment of painful nipple vasospasm

- Fix latch
- Warm compresses and protection from cold
- Assess oral cavity: is there a tongue-tie??
- Medication:
  - Vitamin B6 200mg x 5 d, then 25-50mg qd,
  - Magnesium 500 mg bid and Calcium 1000 mg bid
  - Nifedipine XL 20 - 30 mg oral.
  - Evening primrose oil
  - Omega fatty acids

Station 6: Infant Issues Affecting Breastfeeding

- Uma has been having nipple pain with feeds since day 1
- Baby is fussy at the breast, frequently chokes and refuses the breast
- Baby regurgitates after every feed
- What other questions do you have?
- What are you thinking of?

More information

- 6 week old ♂
- birth weight: 3,580 gms
- present weight: 4,865 gms
- baby regained birth weight by 7 days
- 8 heavy wet diapers & 5 stools per 24 hours
- baby very fussy with feedings in the past 3 weeks, crying during and after feedings
- baby starting to refuse feedings

Assessment & breastfeeding observation

- Baby is healthy and chunky.
- On breastfeeding observation – baby has shallow latch and often slips off breast.
- Baby cries within minutes of starting to feed and stops feeding.
- What could be happening?

Diagnosis?

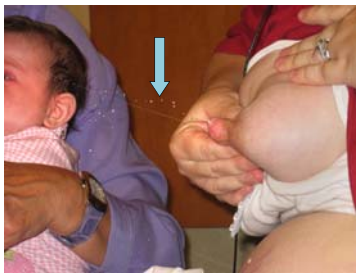


Photo: Carole Dobrich

Hyperactive MER (Milk Ejection Reflex) Differential → GERD

Evaluation

Hyperactive milk ejection reflex and gastroesophageal reflux disease (GERD) may show similar symptoms in the baby:

- Latches, sucks, chokes and comes off
- Appears hungry
- Cries a lot
- Becomes afraid to latch
- But is often growing well initially
- Consider bovine protein allergy
- But remember normal babies do cry!

Hyperactive Milk Ejection Reflex

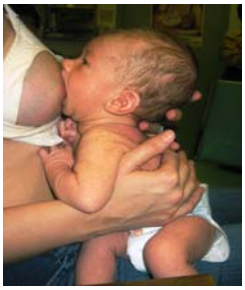


Photo: Carole Dobrich

Diagnosis:

- mother will notice strong jet of milk from breast

Treatment:

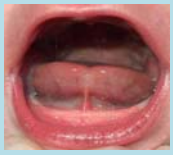
- change position of feedings → upright, side-lying or leaning back
- express milk to start - remove some milk

GERD

- may appear to be similar to MER
- may have increased spitting or gagging
- if severe, may lead to failure to thrive, wheezing, esophagitis
- Dx: GI consult or pH monitoring
- trial of Ranitidine or Lansoprazole
- Ranitidine: 2-4 mg/kg/dose divided bid

Station 7: Ankyloglossia and frenotomy

- Martha is a 30 yr old mother with a 1-month old baby.
- Baby has had slow weight gain
- Breastfeeds are difficult, baby easily slips off the breast
- Nipples feel like sandpaper throughout the feed
- Feeds last more than an hour
- Baby cries "a lot"
- **What are your thoughts?**

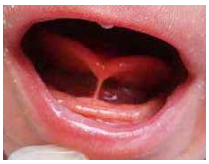


Ankyloglossia

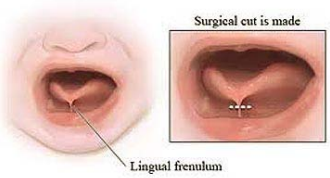
- Sublingual frenulum that extends further than usual towards the tip of the tongue.
- Anterior vs posterior (submucosal).
- Seen in many infants.
- 25 - 44% of ankyloglossic infants will have breastfeeding problems → poor latch due to tongue restriction, maternal nipple/breast pain, decreased milk supply, poor infant weight gain and early weaning.

Anterior tongue-tie (types 1 and 2)

Classic type, easy to see, closer to or at tongue tip; difficulty with extension and lifting of tongue.



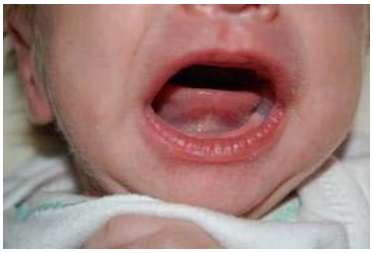
http://www.tonguetie.co.uk/



http://www.fertilefoods.com/healthy-pregnancy/motherhood/frenotomies-not-just-for-breastfeeding/

Posterior tongue-tie (types 3 and 4)

Further back from the tongue-tip, nearer the base of the tongue or under the mucosa; not as easy to see, easy to miss



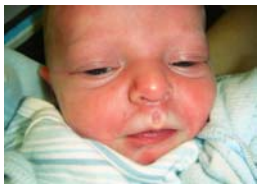
http://tongue-tied.net/

How does mother present?

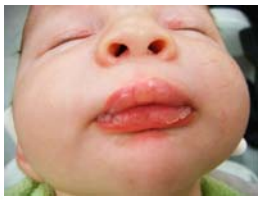
- Nipple and/or breast pain
- Gumming/chewing feeling while feeding
- Nipple trauma/wounds
- Nipple vasospasm
- Decreased milk supply
- Blocked ducts and mastitis
- Untimely weaning

How does infant present?

- Latch difficulties:
  - needing more support, frequent pop-offs, superficial latch.
- Long and/or frequent feeds, dissatisfaction after feeds
- Poor weight gain
- Tongue restriction:
  - heart-shaped tongue, seems short, rests on floor of mouth, limited extension; cupping/central depression of tongue when crying or trying to raise tongue
- Noisy feeds (clicking)
- Lip blisters and/or two-toned lips
- Peri-oral blanching post-feeds
- Prominent naso-labial folds
- White coating on tongue
- Irritability, fussiness at breast
- Bubble palate
- Strong gag reflex



Two-toned lips



Peri-oral blanching

Photos: http://tongue-tied.net/

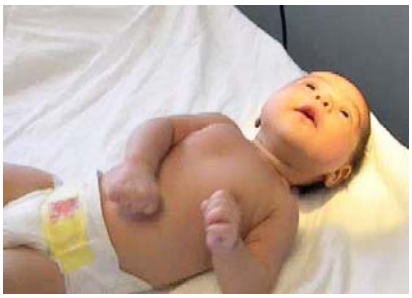
Evaluation: Main points

- Presence of tongue-tie alone is not enough to decide on management
- Need to evaluate function and restriction of tongue movement AND level of breastfeeding difficulties

Evaluation of tongue mobility

- Presence of "speed bump" when performing tongue-sweep under tongue
- Tongue lifting
- Tongue lateralization
- Tongue extension
- Sucking assessment

Evaluation of posterior tongue-tie



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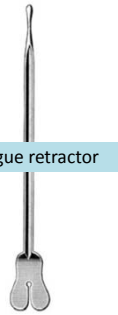
Initial treatment considerations

- Frenotomy not needed in all cases
- Always work on LATCH first
- Evaluate need for treatment of other problems:
  - Craniosacral therapy for infant MSK issues (torticollis, tight jaw)
  - Maternal vasospasm treatment
  - Management of poor milk supply and poor weight gain

Frenotomy

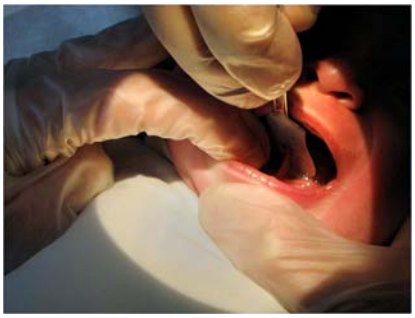


Tongue retractor

a) Tylenol
b) Mobilization of infant with swaddling and assistant holding head in extension
c) Isolation of frenulum with tongue retractor
d) 2-5 mm incision of lingual frenulum
e) Compression prn if bleeding
f) Immediate latch and feed at breast OR drops of expressed breastmilk in mouth

Blunt end Metzenbaums

Anterior frenotomy



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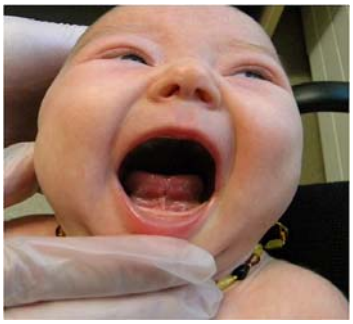
After anterior frenotomy



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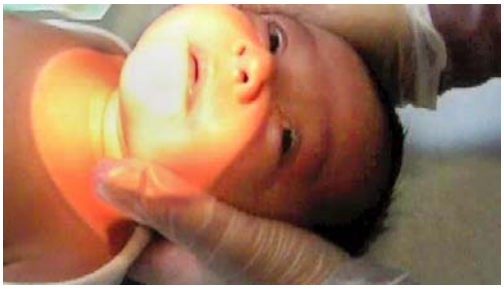
Posterior frenotomy video



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After posterior frenotomy

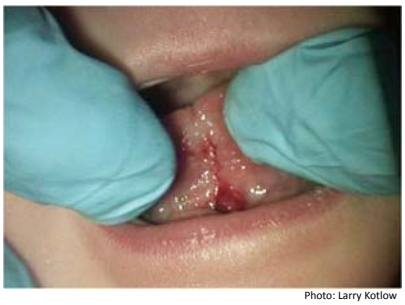
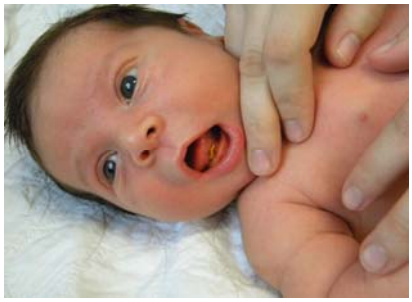


Photo: Larry Kotlow

Frenotomy risks

- SAFE according to literature
- **The Theoretical:**
  - Significant bleed: less with anterior frenotomy
  - Infection: rare, never seen in our clinic
  - Salivary gland injury: rare, never seen in our clinic
- **The Actual:**
  - Pain
  - No or slow improvement
  - Irritability/refusal to feed in following days
  - Reattachment

The healing process



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Stretching exercises

- What do we do about all of the posterior frenotomy dyads who improve and then plateau or regress?
- Stretching exercises:
  - Backwards and upwards massage done with fingers on either side of frenotomy incision site (diamond-shaped); can be done with one finger over frenotomy site as well.
  - Done in clinic 2 days later and 1 week later.
  - Done by parents 3 times a day before feeds at home x 1-2 weeks
  - Study at Goldfarb Breastfeeding Clinic done in 2012 showed less incidence of repeat frenotomies with stretching exercises

What about the labial frenum?

- Defined as the upper lip attachment to the maxillary gingival tissue.
- New research and clinical expertise shows that the labial frenum can also cause breastfeeding difficulties and labial frenotomy is safe and effective.
- *Kotlow 2013:*
  - A tight labial frenum can interfere in the baby's ability to flange the lips to maintain a good seal and latch
  - The sign of a tight labial frenum is a small crease/compression line between the upper lip and nose

Station 8: Breast Lumps

- Ariane is 4 months postpartum and is exclusively breastfeeding her baby with no problems so far.
- She complains of a lump in her right breast for the last 4 wks.
- The lump is not tender.
- She feels a decrease in milk supply on the affected side.
- Baby has been refusing the right breast for the last 4 wks.
- How do you proceed?

Engorgement

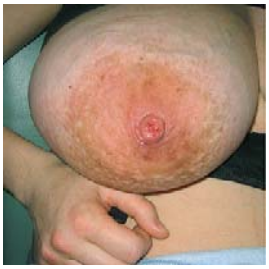


Photo: Goldfarb Breastfeeding Clinic

- Usually occurs day 3-5 postpartum or soon after
- Red, painful, swollen breasts bilaterally
- Occasionally fever/malaise.
- This is not "too much milk" but "not enough milk removal".

Management of engorgement

Prevention:

- Skin-to-skin contact
- Frequent, unrestricted breastfeeding on demand
- Pumping or manual expression if unable to breastfeed
- Optimal latching

Treatment:

- Manual expression or pumping
- Cold compresses, cabbage leaves
- Frequent feeds
- Reverse pressure technique

Blocked Ducts

- Painful, hard area in the breast, may have redness
- Could notice decrease in milk supply on that side.
- No fever, chills or malaise

Management of blocked ducts

- Feed/pump frequently on affected side
- Position infant so that chin is pointing towards blockage
- Massage blocked duct while feeding/pumping
- Epsom Salt soaks
- Ultrasound therapy
- Lymphatic drainage
- Lecithin 1200 mg QID for repeated blockages

Remember to think about...

Breast cancer:

- 2%-3% of breast cancers are diagnosed during pregnancy and lactation.
- Breast refusal for no apparent reason could be an early sign of breast cancer (Goldsmith sign).
- Note if there changes in breast anatomy like newly inverted nipples, peau d'orange.

Station 9: Breastfeeding and Drugs and Medications

Mimi is a 25 year-old woman who is currently 28 weeks pregnant. This is her first baby. So far her pregnancy has been uncomplicated. With her hand on the door knob leaving your office, she says the following:

"I have been afraid to mention this but I like to smoke every once in a while. I haven't smoked anything since I knew I was pregnant. I can hardly wait until after the baby is born to have a smoke. Do you think I could still breastfeed?"

What can you tell her about smoking and breastfeeding?

What about drugs and alcohol?

What about medication?

Smoking and breastfeeding

- Heavy smoking may decrease breast milk production.
- Cigarette smoking should be minimized while breastfeeding.
- Nicotine replacement therapy is safe in breastfeeding.

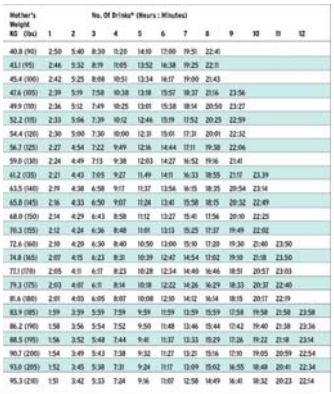
Risk of smoking and breastfeeding < Risk of smoking and NOT breastfeeding

Do I need to abstain from alcohol?

- The infant is exposed to very small amounts of the alcohol ingested by the mother, but detoxifies it at half the rate of adults (especially in the first few weeks of life).
- Can consult Motherisk recommendations and table.
- Avoid heavy drinking → it can decrease milk production and interfere with mother's ability to care of infant.

(Koren G, Drinking alcohol while Breastfeeding. Motherisk Update, Can Fam Phys., 2002).

Beststart/Motherisk alcohol and breastfeeding table



Koren G., Drinking alcohol while breastfeeding. Motherisk Update. CFP 2002; 48:39-41

What are your recommendations about drug use and breastfeeding?

www.addictionpregnancy.ca

Pregnancy-Related Issues in the Management of Addictions (PRIMA): A Reference for Care Providers

Medications and breastfeeding:

Watch out for:

- Estrogens, pseudoephedrine, ergots, bromocriptine → may decrease breastmilk production.
- Demerol → may lead to neurobehavioral effects in infant.
- ACE inhibitors → avoid in neonates.
- Sulfonamides → avoid in neonates.
- Codeine
- Fluoxetine

However, most medications are OK while breastfeeding.

Breastfeeding and imaging

- CTs and MRIs with contrast: **safe** for breastfeeding mothers according to American College of Radiology:

  < 0.04% of maternal contrast dose in breastmilk, of which only 0.8% absorbed by baby.

- Nuclear tests using radioactive compounds: suggest various periods of temporary breastfeeding cessation based on compound and type of test (more info in Hale).
- Most dangerous: radioactive iodine for thyroid ablation

For more information on meds and breastfeeding

- IMAGE Quebec
- Motherisk: www.motherisk.org
- Medications and Mother's Milk by Dr. Thomas Hale, as well as Dr. Hale's website: http://neonatal.ttuhsc.edu/lact/
- Lactmed: http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?LACT - Available as app for iphone!

CPS breastfeeding safety info is not always up-to-date!

Station 10: Milk Supply Issues

Photo: Carole Dobrich

- For the last 7 weeks, Gita is exclusively breastfeeding her baby, "Jay".
- In the last week, Jay has been crying more and appearing hungry after feeds.
- Jay's feeds have been lasting longer and are more frequent than before.
- Gita's mother-in-law is advising her to supplement with formula.

On exam...

- Jay has gained 10 g/day since his last appointment with you two weeks ago.
- He has been urinating 4 times a day in the last week.
- His stools are yellow and soft.
- He seems irritable and fussy.

Your overall impression: Inadequate weight gain in baby.

Real vs perceived low milk supply

What is "normal infant feeding"?

- Every 1-4 hrs, 8-14 times in 24 hrs.
  How often would you need to eat if you had to double your weight in 6 months and triple it in 1 year?
- Breastfeeding is for nutrition and comfort → mothers may perceive that baby wants to "eat" again as not having enough milk, yet baby may simply need closeness.

Indicators of true low milk supply

- Poor weight gain → < 20 g/d until age of 3 months
- Insufficient output → less than 5-6 heavy wet diapers/24 hrs.
- Stools → change from yellow soft consistency if exclusively breastfed
- Baby consistently hungry after feeds
- Needing to supplement in order to maintain the above

Causes of decreased milk production: INFANT

Very common → inadequate breast stimulation:

- poor latch
- spaced or restricted duration of feeds.
- maternal-infant separation, delayed skin to skin contact
- inappropriate introduction of pacifier or bottle
- prematurity
- infant conditions that interfere with latch (ie. ankyloglossia, cleft lip/palate, neuromuscular problems)

Causes of decreased milk production: MATERNAL

- retained placenta
- postpartum hemorrhage
- unresolved engorgement
- meds → OCP, decongestants
- thyroid disease
- hypopituitarism/Sheehan's syndrome
- PCOS
- stress

Causes of decreased milk production: MATERNAL (cont'd)

Image: Ramsey DT, Hartmann RL, Hartmann PE.

- Small breasts? **NO!** Amount of glandular tissue may affect milk storage capacity, but not overall production
- Breast surgery:
  - Periareolar incisions could sever thoracic nerves essential for milk ejection reflex
  - breast reduction
- Primary mammary glandular insufficiency

"How can I increase my milk supply?"

- Ensure adequate breast stimulation = optimize latch, encourage feeding at breast for as many feeds as possible
- Pump after feeds with double electric pump or manual expression: even 5 min can go a long way!
- Breast compressions: 5 sec squeezes during the feed
- Switch nursing: changing sides often during a feed

Milk storage

For term infants, expressed breastmilk can be stored:

- Outside for 6-8 hrs.
- In a cooler pack for 24 hrs.
- In a refrigerator for 5 days
- In a freezer compartment inside the fridge for 2 wks.
- In a freezer above a fridge for 3-6 months
- In a chest or upright freezer for 6-12 month.

Prescribing domperidone

- 10 mg po tid/qid → 30 mg po qid x 3-8 wks +
- Ask about GI and Cardiac disease, esp long QT syndrome
- Many interactions with other products, including:
  - Grapefruit, cisapride, fluconazole, ciprofloxacin, azithromycin, some antidepressants, lithium, some HIV meds, some antipsychotics, some anti-arrhythmics.

Recent Health Canada Warning (March 2012)

- Based on 2 studies (avg age of patients were 72.5 and 79.4 yrs)
- Many patient had pre-existing health conditions (htn, CAD, CHF)
- Breastfeeding mothers using domperidone don't fall into the same demographics as the patients involved in the studies from which the Health Canada warning was generated
- **http://www.jgh.ca/en/pfrcbreastfeeding -> consensus statement on domperidone safety available on this website**

Domperidone: Side effects

- Headache
- Dry mouth
- Dizziness
- Fatigue
- Sedation
- Diarrhea/constipation
- Abdo cramps
- Increased appetite
- Palpitations

Conclusion

What have we learnt?

Take-home messages

- Breastmilk saves infant lives and greatly benefits mothers.
- Your support makes a huge impact on breastfeeding success.
- Facilitating skin to skin and breastfeeding during birth and the early postpartum period can increase breastfeeding success.
- Breastfeeding problems may arise, but solutions can be found.
- Help is available through referrals to lactation consultants.

Thank you!

Photos: from Korea

Thank you!

Please complete the session evaluation form located in your package.

You will receive a link to complete the post-course questionnaire in three months. Once the questionnaire is complete, we will send your certificate which you can then submit to CFPC.

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