The Outpatient Breastfeeding Champion Program Session 5

IABLE

Institute for the Advancement of Breastfeeding & Lactation Education

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- The Instructor has no conflicts of interest to disclose
- Continuing medical education credits (CMEs) and continuing education recognition points (CERPs) for IBCLE are awarded commensurate with participation and complete/submission of the evaluation form
- CMEs can be used for nursing credits

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Building Breastfeeding-Knowledgeable Medical Systems & Communities

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OBC Session 5 Topics

- Reasons for Insufficient Infant Weight Gain
- Weight Checks
- The Sleepy Baby
- Evaluating Growth Charts
- Low Milk Production
- Pre/Post Feed Weights
- Supplementing the Breastfed Baby

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Session 5 Objectives

- Identify 3 symptoms of a 3-day old infant who is not consuming sufficient calories.
- Demonstrate competency at interpreting infant growth on an infant weight growth chart.
- Recite steps taken to perform a pre- and post-feed weight.
- Describe 4 typical pieces of advice given to parents with sleepy babies.

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Session 5 Objectives

- Describe switch nursing.
- Identify 4 major reasons why milk production may be low.
- Describe 3 methods to supplement infants in the first few weeks postpartum.
- Identify 3 commonly used galactagogues.

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Signs of Adequate Intake in the First 3 Days

- The baby nurses every few hours
- 2 stools a day
- 2-3 voids a day
- Content between feedings
- Minimal jaundice
- Breasts feel heavier
- Weight loss (from birth weight) is less than 10%

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Reassuring Signs of Adequate Intake After the Milk Increases in Volume (after ~day 3)

- The baby nurses every few hours
- 3-4+ yellow seedy stools/day
- Always wet
- Infant content between feedings
- Breasts feel heavier before feeding, softer after
- Weight is no longer decreasing, and ideally is increasing ~30 grams a day (1 oz)

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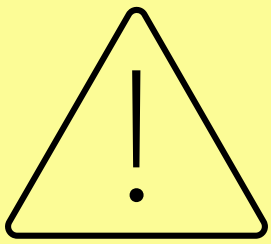
Signs of Insufficient Intake

- Infant restlessness after feedings
- Dry small stools
- Dry diapers at times
- Constant nursing
- Breasts without fullness
- New breast/nipple pain
- Ongoing weight loss or lack of weight gain



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What are infant feeding behaviors that lead parents to worry about how much the baby is taking?

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Parental Concerns re Weight

Parents often express concerns that can lead to supplementation:

- Is our baby getting enough?
- Is our baby feeding too often?
- Is our baby not nursing long enough?
- Is our baby fussy because he is still hungry?

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Instilling Confidence

- **Infant Weight=Proof of Adequate Feedings**
  - Feedings cannot be assessed by phone
  - Adequacy of calorie intake cannot be determined by observing feeds
- Non-gaining babies might:
  - Have nl # of stools/voids
  - Be satisfied after nursing
  - Spit- up after feedings
  - Sleep all night

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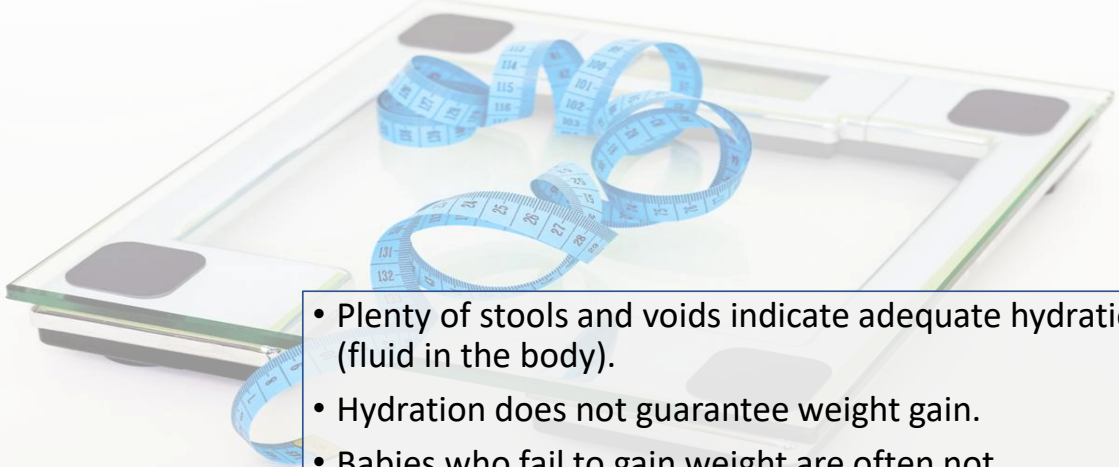
Does a report of adequate daily stools and voids indicate optimal intake?- NO



- Plenty of stools and voids indicate adequate hydration (fluid in the body).
- Hydration does not guarantee weight gain.
- Babies who fail to gain weight are often not dehydrated.

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Not everyone can see a provider, lactation consultant or WIC for a weight check.
What are other options in your community for a weight check?

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Triage Tool

Is My Baby Getting Enough?

Group 1

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- Your baby is 10 days old
- The baby wants to nurse every hour when awake
- The baby falls asleep after nursing on one side, and you cannot get her to wake up to feed from the other side .
- The baby has lots of wet diapers, and 3 poops a day
- Your breasts feel somewhat full at times, mainly at night
- You think that your baby's color is fine

For Babies Who are 4 Days-14 Days Old:

Are all of the following true?		
Is the baby nursing at least every 2-3 hours? **Does the baby have at least 4 yellow seedy stools a day?** **Is the baby wet at least every 2-3 hours around the clock?** **Does the baby seem satisfied after nursing for at least 1.5 hours?** **Does the parent notice that their breasts feel full before it is time to nurse the baby?** **Does the baby appear healthy with no yellow color in the skin or eyes (jaundice)?**	Yes →	A weight check should be done to make sure the baby is gaining approximately 1 ounce a day or more. Confirming a good weight gain will boost the family's confidence.
	No →	**The baby must be seen soon** for a visit with the physician.

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Discussion Case Is My Baby Getting Enough?

- What is the parent concerned about?
- How can you help this parent?

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What are reasons why a baby may not gain enough weight when breastfeeding?

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Common Reasons for Insufficient Infant Weight Gain

Sleepy at the breast

Infrequent feeding

Low milk production

Infant illness

Distraction at the breast

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‘Sleepy-Feeder’ Babies

- Too sleepy to transfer enough calories
  - All newborns are sleepy
  - These babies are **too** sleepy at the breast
- Increased risk
  - Small for Gestational Age (SGA) babies
  - Premature infants
    - Especially 35-38 week infants
  - Sedating medications taken by the parent

Source: US Breastfeeding committee

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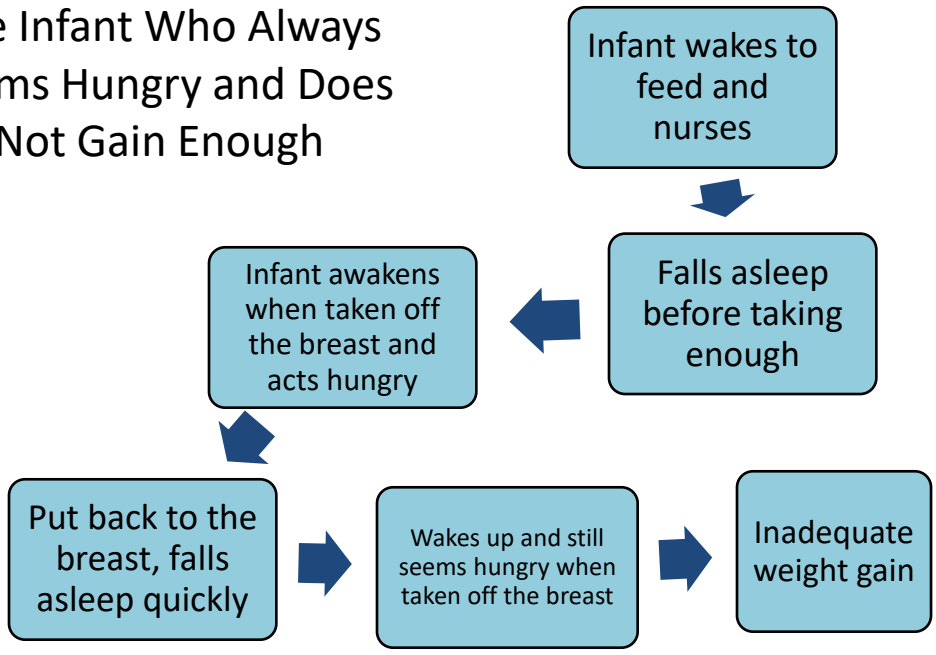
The Infant Who Always Seems Hungry and Does Not Gain Enough



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An Infant Who is Sleepy but Wakes Up When Parent Attempts to Take Off the Breast

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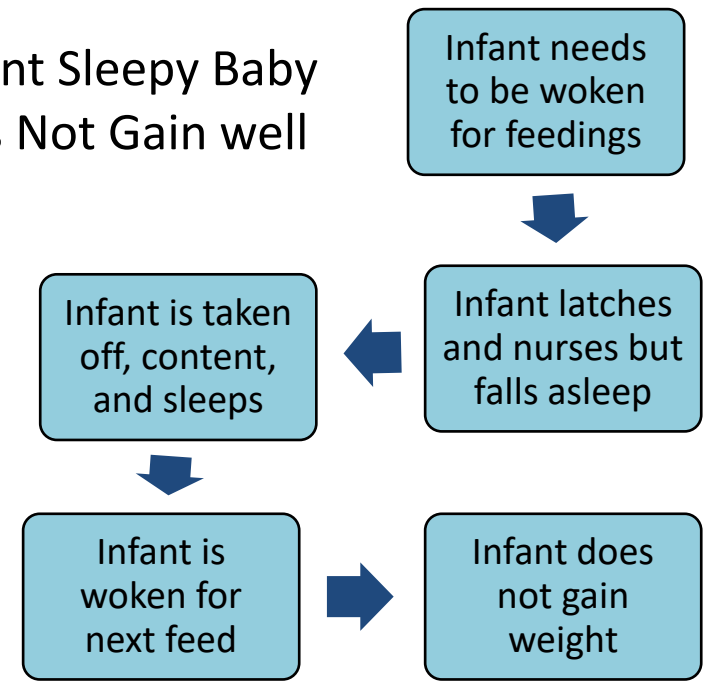
The Content Sleepy Baby Who Does Not Gain well



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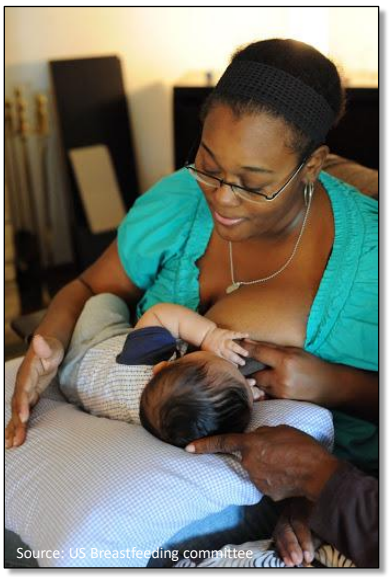
Why Doesn't Milk Transfer Occur?

- Breastfeeding is an active process
- The baby must work to initiate milk flow
- Sleepy babies cannot generate this work



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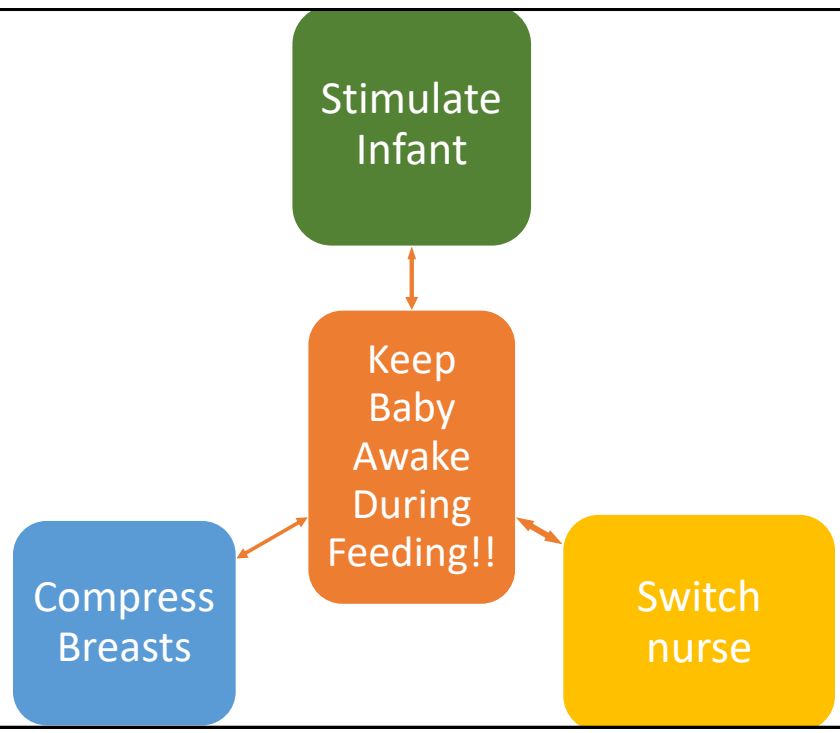

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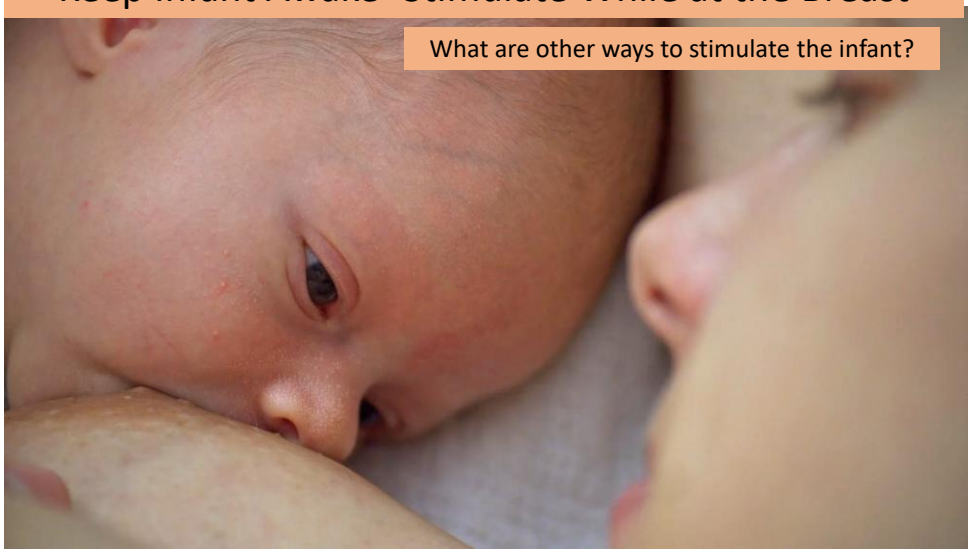
Keep Infant Awake- Stimulate While at the Breast



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Breast compressions while nursing can help transfer milk to a sleepy infant

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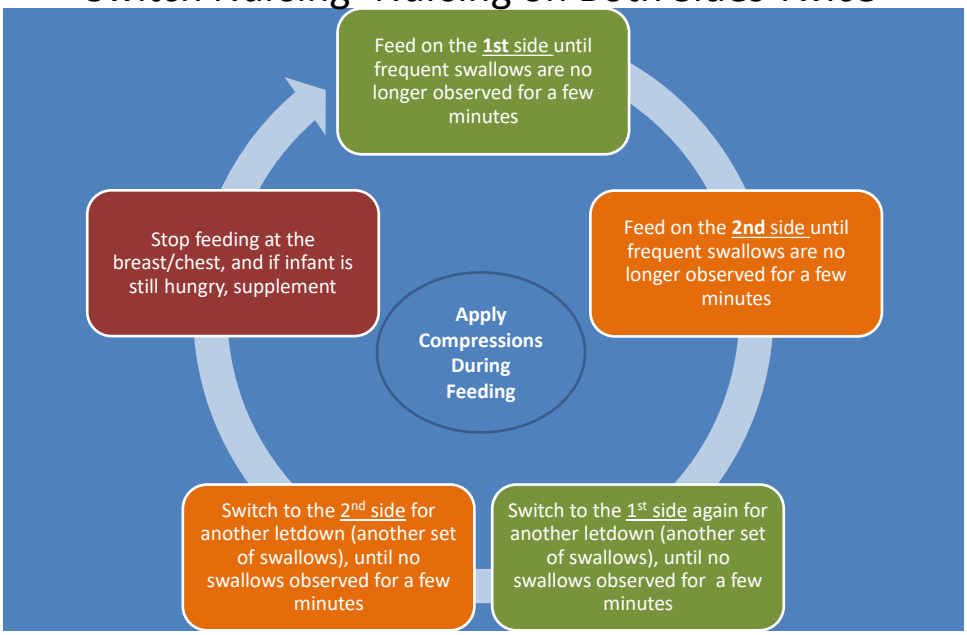
Switch Nursing- Nursing on Both Sides Twice



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Watch for Sucks and Swallows Determine When Swallows End

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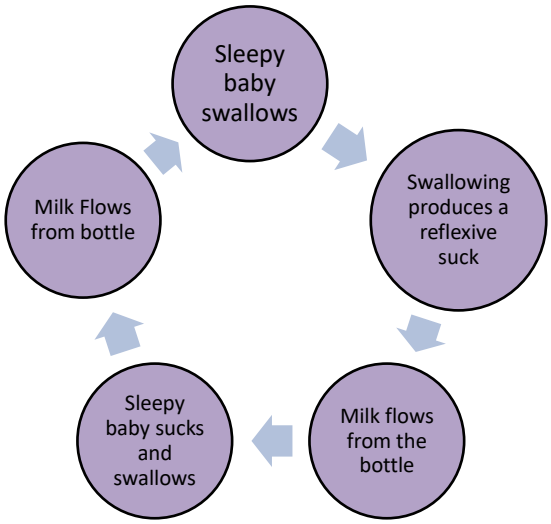
Supplementing Sleepy Babies

Bottles are often necessary when attempts to keep them awake and switch nursing do not help



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Why Paced Bottle Feeding?

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- Not paced
- Milk flows quickly from the bottle
- Baby feeds quickly and may overfeed
- At risk for bottle propping
- Baby develops a preference for fast flow, less patient at the breast

- Feeding is paced
- Slows feeding to mimic breastfeeding
- Prevents overfeeding
- Baby has control of milk flow
- Prevents propping

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Triage Tool -Sleepy Baby; Group 2

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- This is your second baby
- The baby is 3 weeks old, and has always been sleepy since birth
- The baby takes 40 minutes to finish each side
- It is hard to wake the baby up after nursing on one side
- The baby nurses every 3 hours
- He has 5 stools a day
- Nothing has really changed in terms of # of stools or voids
- Mom does not have breast pain

For Babies Who are More Than 2 Weeks Old:

Is this sleepy behavior a new change for the baby? → Yes → If yes, the baby needs to be seen today by the physician to rule out illness such as an infection.

↓ No

Has there been a decrease in the number of stools per day?
Has there been a decrease in the number of wet diapers per day?
Does the baby still seem hungry after feedings?
Does the parent notice that their breasts feel less full?
Is there any new breast or nipple pain?
Does the baby need supplementation after feeding because of continued hunger cues?

↓ Yes to Any

↓ No to All → The parent and baby may be scheduled for a weight check with the breastfeeding champion.

The baby must be seen soon for a visit with the physician.

Regardless of responses, the baby needs a weight check to confirm normal growth and provide confidence for the parent.

Advice Given:

- Keep the baby awake at the breast by tickling the feet, back and neck.
- Wake the baby by taking off clothing and changing the diaper before feeding.
- Advise that sedating medications or substances can cause infant drowsiness, such as:
  - Antihistamines (e.g. Benadryl)
  - Narcotics (e.g. hydrocodone, oxycodone),
  - Benzodiazepines (e.g. lorazepam, diazepam, alprazolam)
  - Alcohol
- Advise breast compressions while the baby is feeding to assist with milk flow to the baby.
- If the baby needs supplementation after feeding due to persistent hunger cues, advise pumping or hand expression to maintain milk production.

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Discussion of Case Sleep Baby

- What are mom's concerns?
- What are helpful pieces of advice?
- How can the breastfeeding champion help her in-person?

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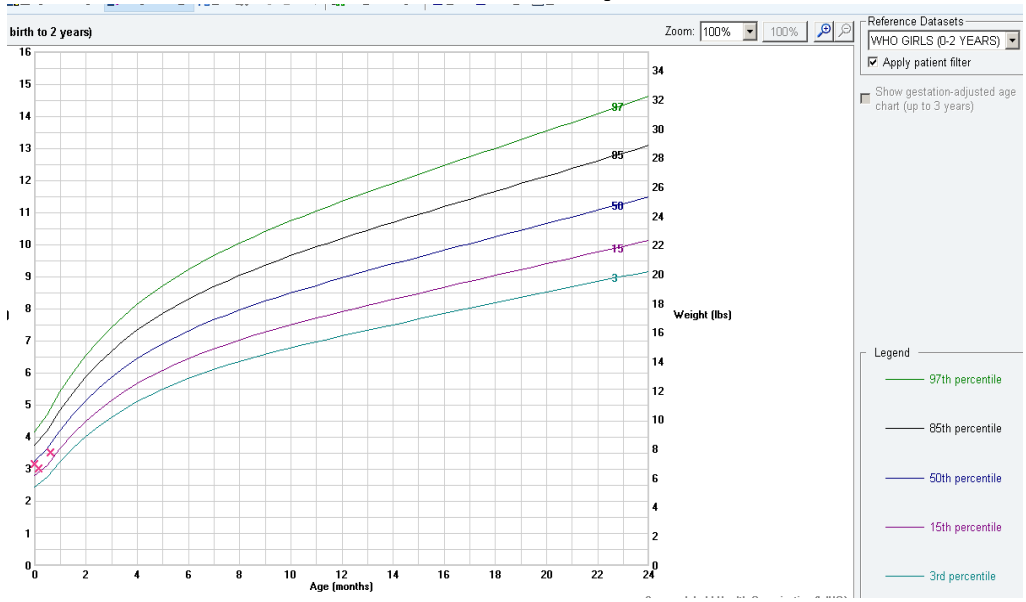
Growth Charts
A Measure of Expected Growth



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Growth Curves

- The Centers for Disease Control uses the World Health Organization Growth Curves thru age 2
  - http://www.cdc.gov/growthcharts/who_charts.htm
- Appropriate for human milk fed and formula fed infants
- Plot naked weights for accuracy

Do you use growth curves? –parents often follow their infant's growth curve on an app

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Expected Rates of Infant Weight Gain

Age of Infant	Expected Rate of Weight Gain
The first 2-4 days	• Mild decrease from birth weight • No more than ~10% weight loss • Lowest weight by day 3-4 of age • Weight loss stops when breasts are fuller • If more than 10% loss, see provider/LC
Day 5 thru approximately 3.5-4 months	• Gain at least 25-30 grams/day • At birth weight or beyond at 2 weeks • Typically gain ~ 2 lb each month • If gaining less, plot weight on growth curve to determine adequacy of growth
After 4 months	• Weight gain/day depends on infant size • Plot the weight on growth chart to determine adequacy of growth

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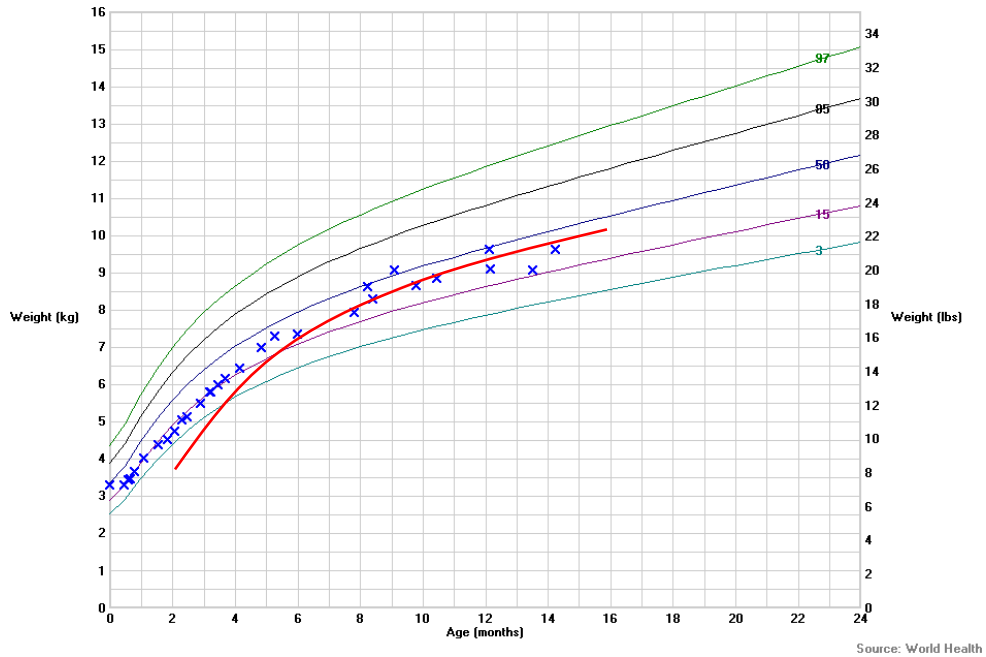
Normal Infant Growth



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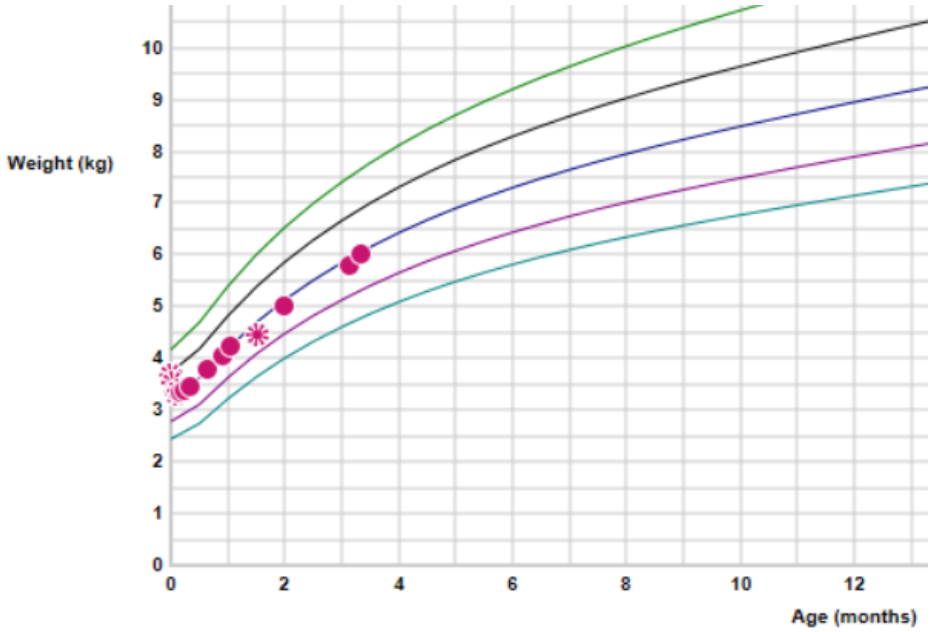

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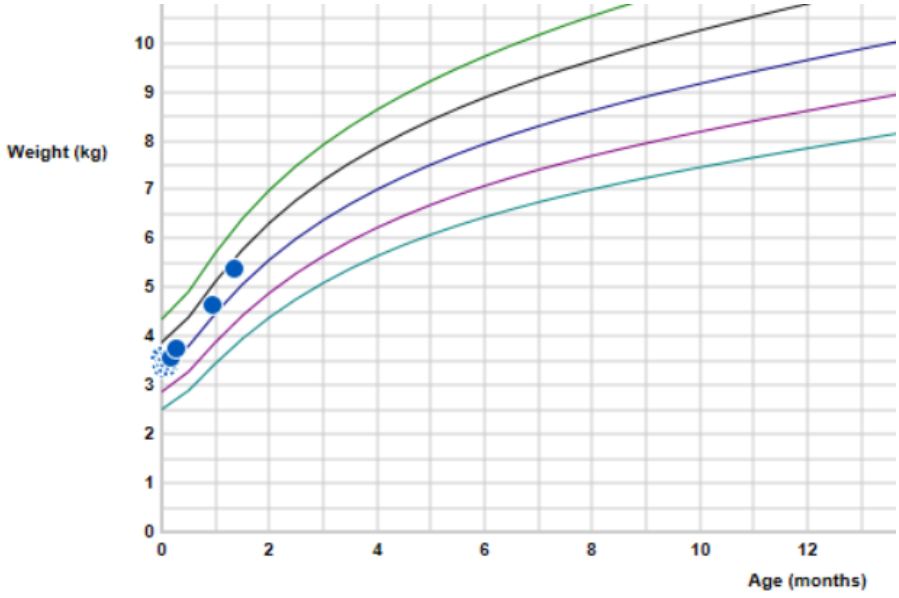

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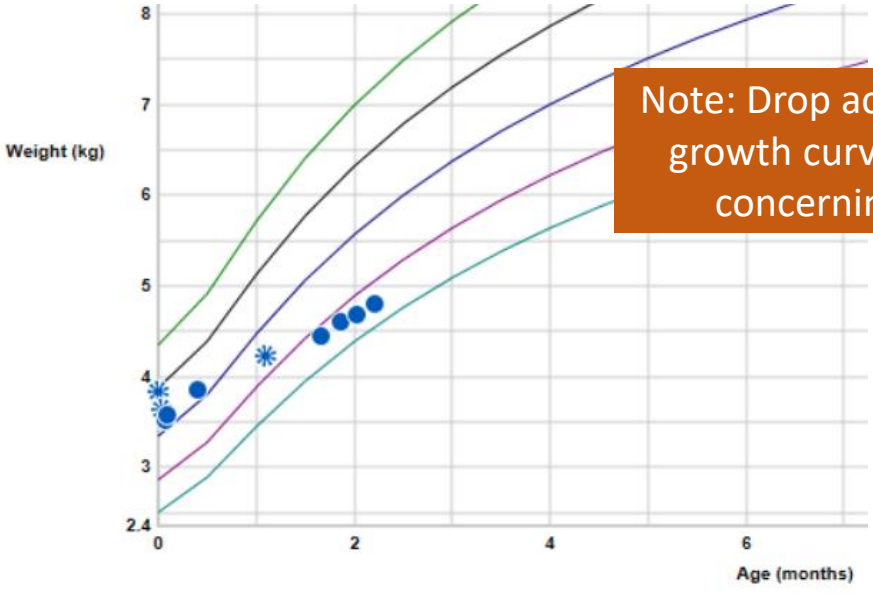

Note: Drop across 2 growth curves is concerning

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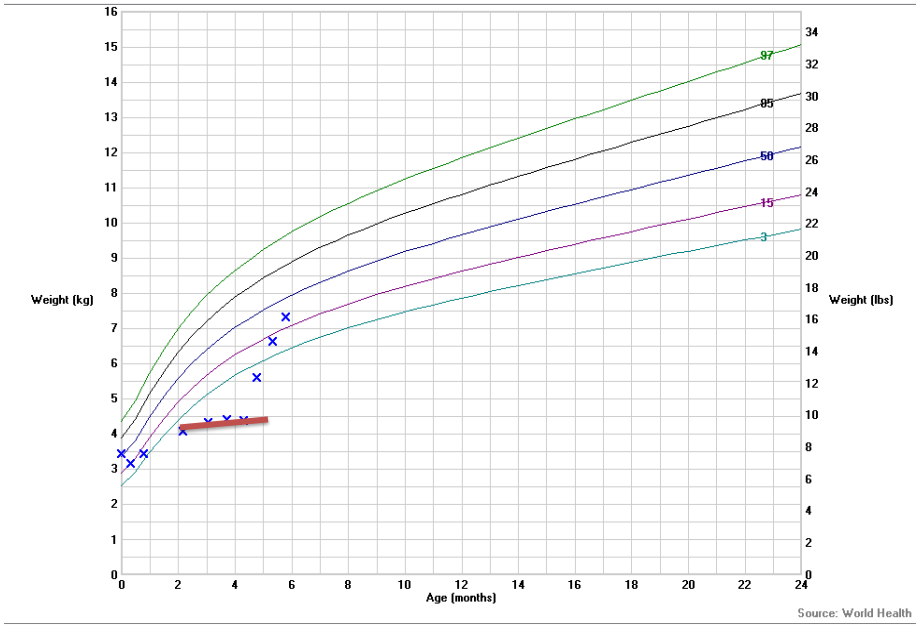
Abnormal Growth



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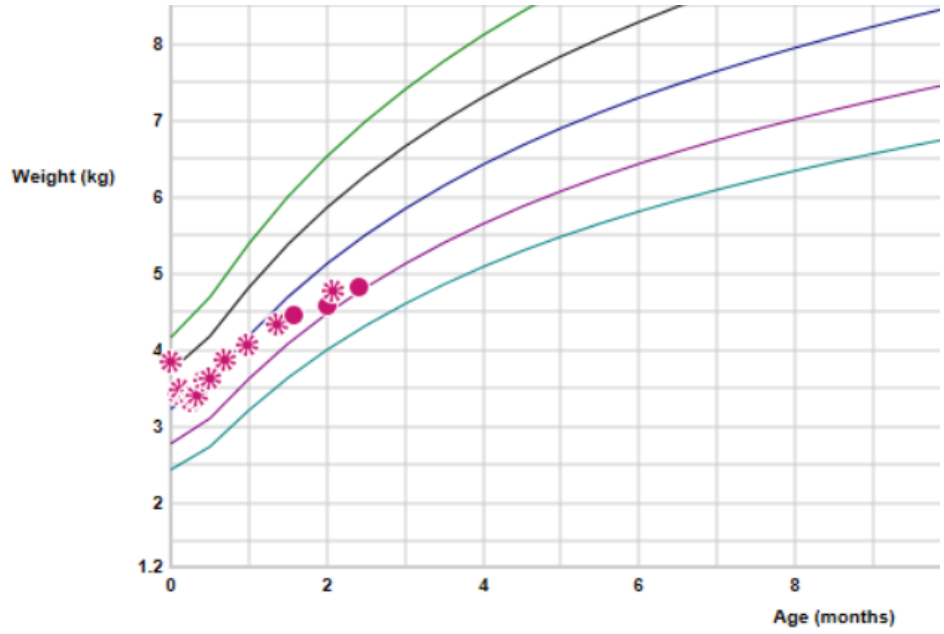

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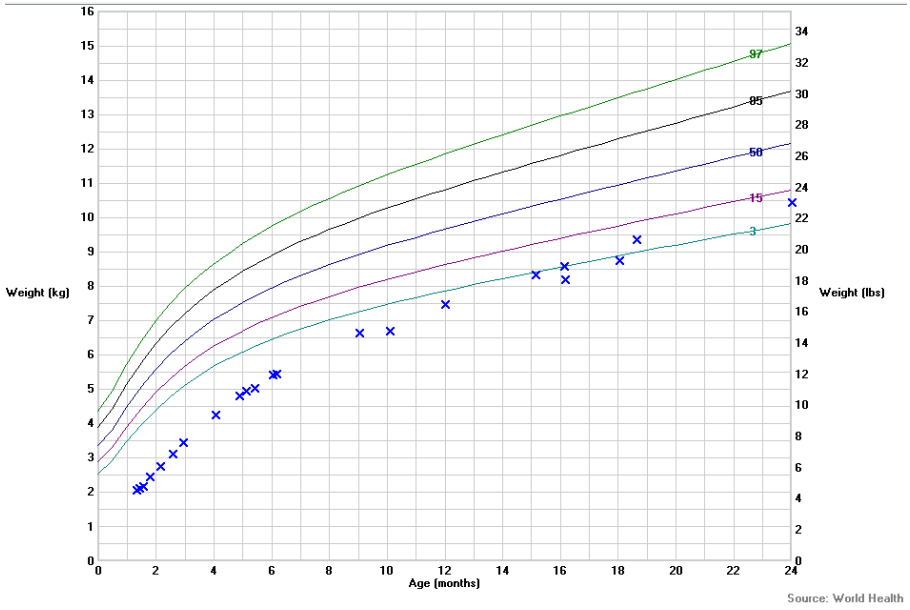
Premature Infant



Source: World Health

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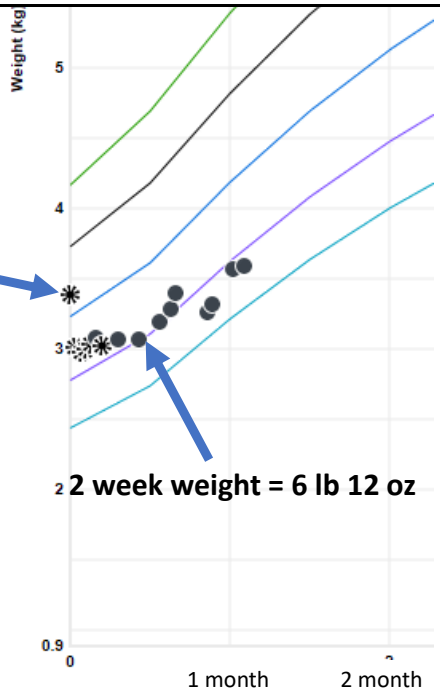
Birth weight at 7 lb 7 oz

What Do You Think of Growth from Birth to 2 Weeks?



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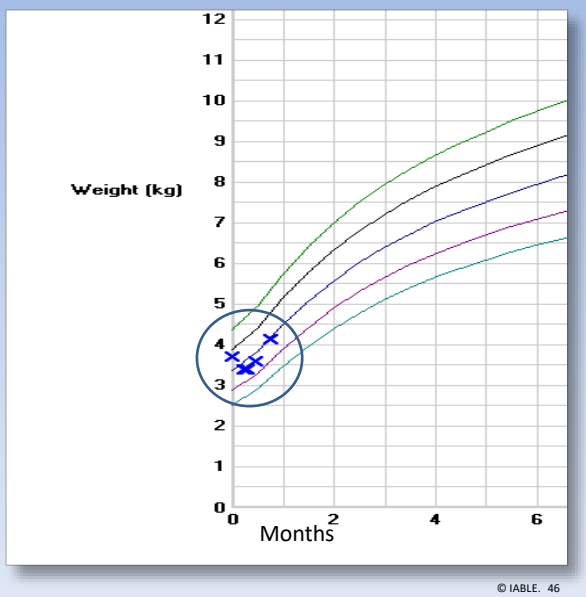
What do these weights tell us?
How is the weight at 2 weeks? At 3 weeks?

Birth wt- 8 lb 2.5 oz (3600g)

2 weeks- 7 lb 14.3 oz (3580g)

3 weeks- 9 lb 1.8 oz (4133g)



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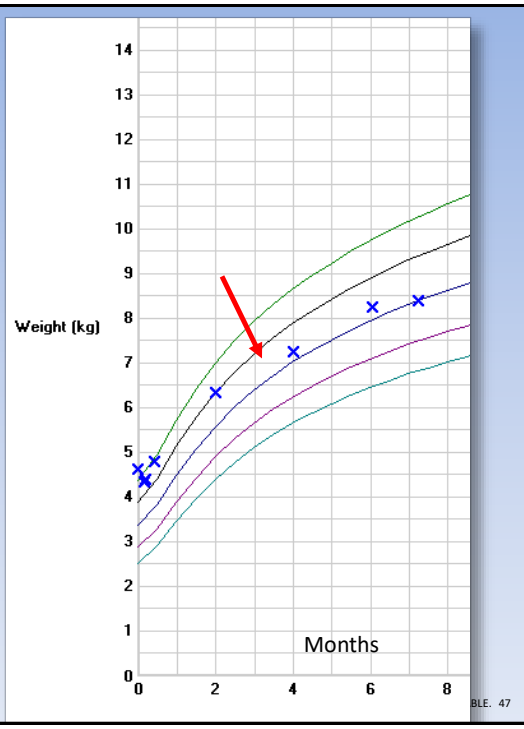
You are seeing this infant at 2 months of age.
How is the growth from birth to 2 months?



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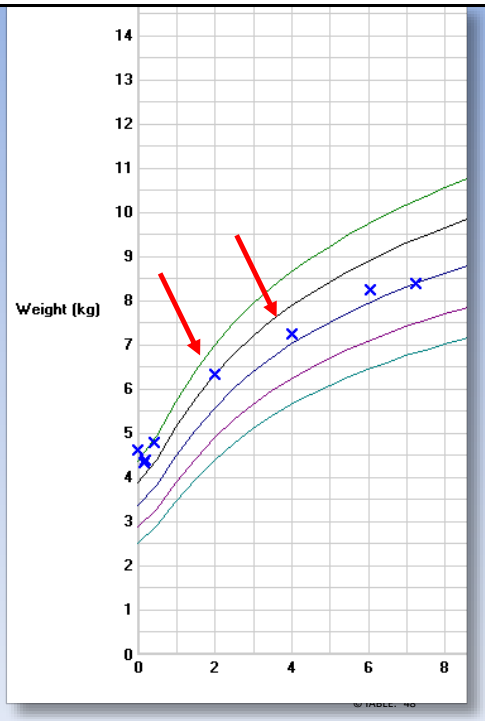
Now you are seeing this infant at 4 months of age.
What do you think about the infant's growth, from 2-4 months?

What questions would you ask parents about feeding?



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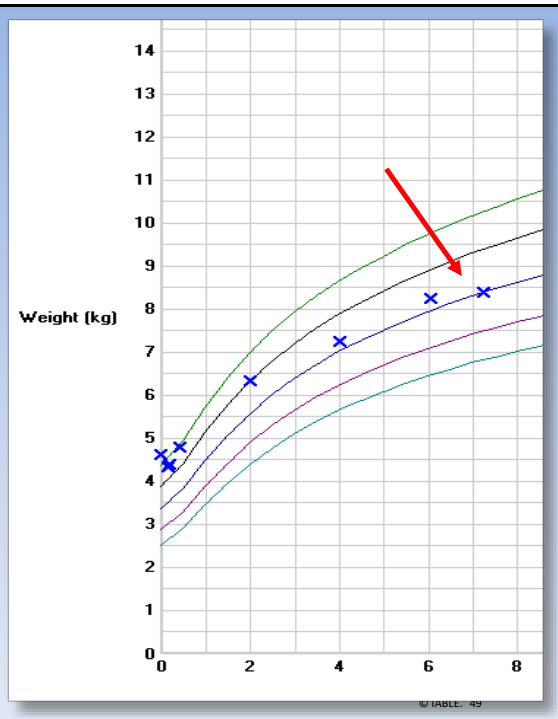
You are seeing the same infant at 7 months of age.

What do you think about the infant's growth, from 4-7 months?



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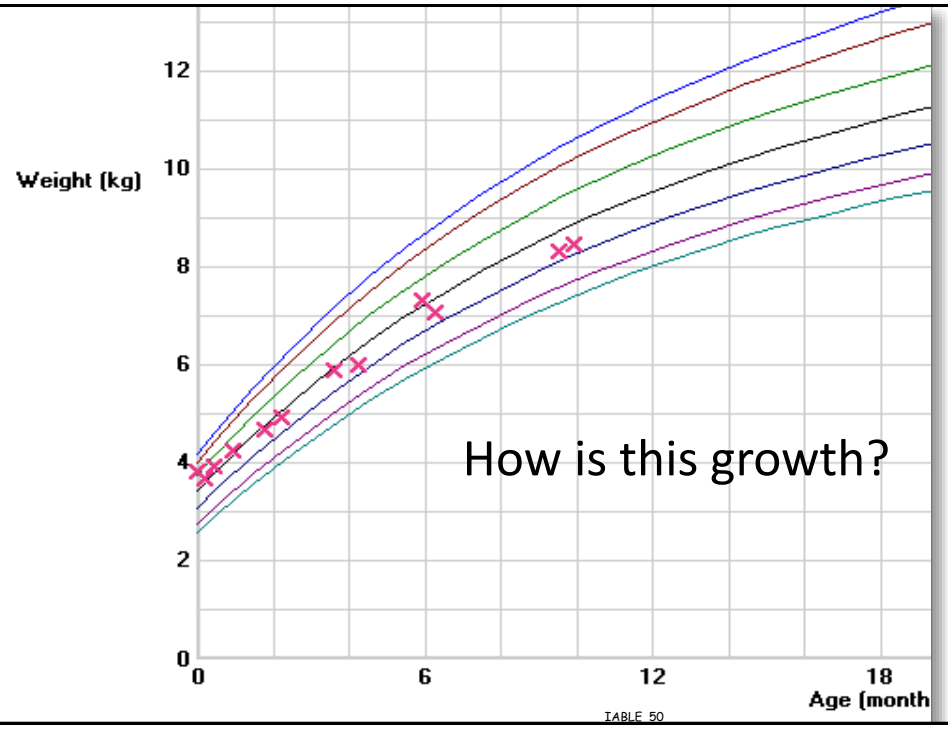

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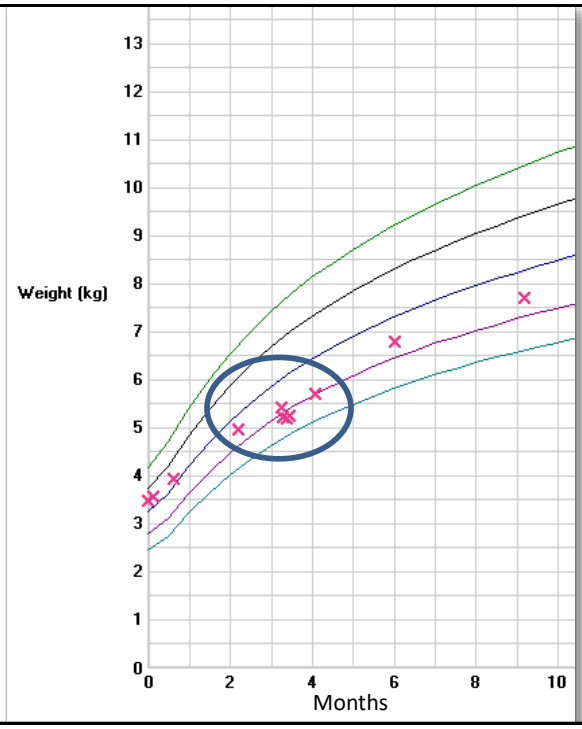

Is this growth OK? What may have happened at 2-4 mo?

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Pre- and Post- Feed Weights

- A way to measure intake at one feeding
- One feeding does not represent all feedings for the whole day
- The proof of appropriate calorie intake is in the daily/weekly weight gain

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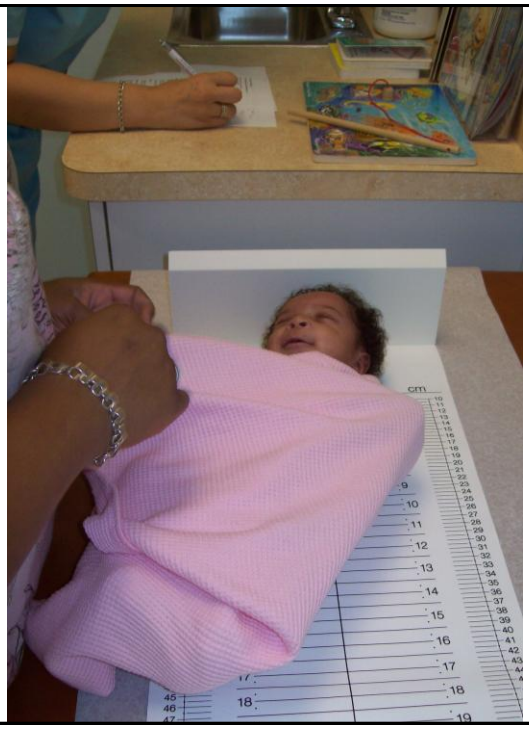
Pre/Post Feed Weights Can Backfire

- Volumes vary per feed
- An office feeding ≠ home feeding
- What is the right amount?
  - Is 2.5 oz (75ml), 3 oz (90ml), or 4 oz (120ml) the right amount?



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Optimal Situations for Pre-Post Feed Weights

- The baby has not been gaining well, and mom appears to have plenty of milk
- Monitoring the baby known to have low milk transfer
  - Premature or sleepy babies
- The baby nurses for a long time, the parent is not sure about their milk production, baby's growth is marginal

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How to Perform a Pre-Post Feed Weight

- Use a digital scale, measuring at least to 2 grams
- Weigh the baby naked, for documentation on growth chart
- Put on clean diaper and clothes that baby will wear while nursing, and weigh the baby in grams
- Feed the baby
- Reweigh the baby in the same clothes and diaper.
- Difference in grams= amount of milk transferred
  - 5400g pre-feed, 5464g post feed =64g difference, which is 64ml transfer

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The Breastfeeding Champion's Role

- Weigh the baby and determine if growth is sufficient
  - If weight is excellent, provide reassurance.
  - If not sufficient or unclear, needs a provider/LC visit
- Initial recommendation for supplementation
- Support the parent's milk production

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Options for Supplementation

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Why are bottles the most popular way to supplement a breastfed infant?

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Bottle Feeding

Pros

- Easy to use
- Available
- Easy to clean
- Culturally acceptable for most families

Best Bottles?
-elongated round nipples

Cons

- Parents may perceive this as giving up
- Baby might prefer the bottle over the breast

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Cup Feeding

Pros

- Does not fulfill infant's suck need
- Cups are easily available and inexpensive (shot glass)
- Easy to clean

Cons

- Learning curve
  - Spillage, slow
- Not typical in our culture
- Overwhelming task for some

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Finger Feeding

Pros

- Avoids using a bottle
- Good for small volumes
- Active participation

Cons

- Difficult with larger volumes
- Needs coordination
- Aspiration
- Cleaning
- Accessibility

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Feeding via a Tube at the Breast

Pros

- Saves time
- Increases breast stimulation
- Avoids artificial nipples
- Can help remove milk from the breast

Cons

- Clumsy, hassle
- Need extra equipment
- Not easily transportable
- Some babies refuse it
- Not for sleepy babies

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Breastfeeding Champion's Role in Cases of Low Milk Production

- Identify whether the parent may have low production
- Cannot diagnose etiology
- Support the milk production
  - Advise frequent nursing
  - Pump after feeding
    - Unless infant empties the breast thoroughly
  - Help parent access a pump
  - Advise on milk storage

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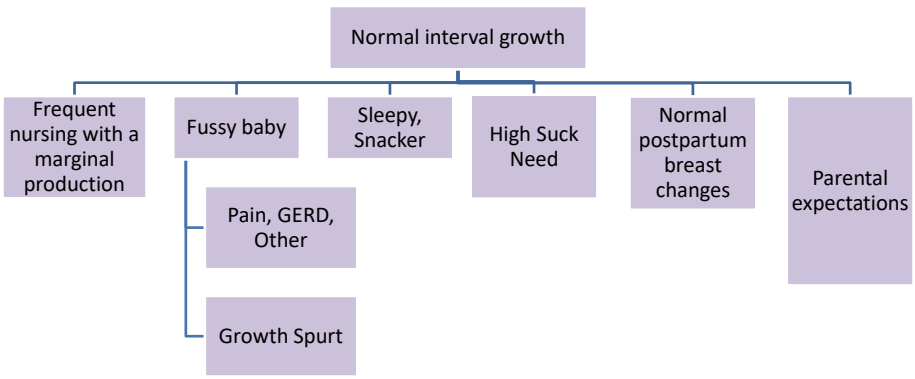
Self-Reported Low Milk Production



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If Interval Growth is Normal

- Reassure
- Make sure that production is not marginal
- Advise on keeping baby awake with feedings
- Evaluate family's expectations
- Identify growth spurts
- Could consider a pacifier if needed

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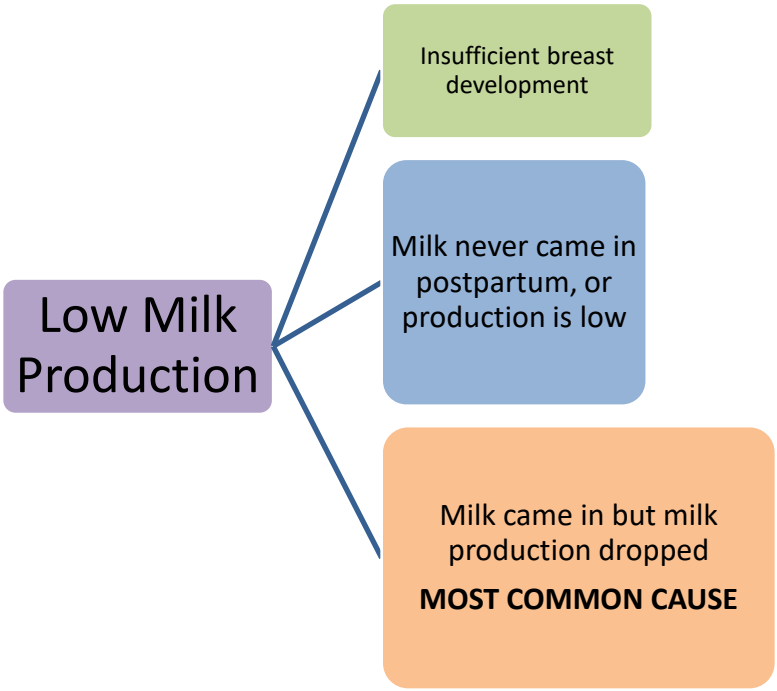

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Prenatal Reasons for Low Production

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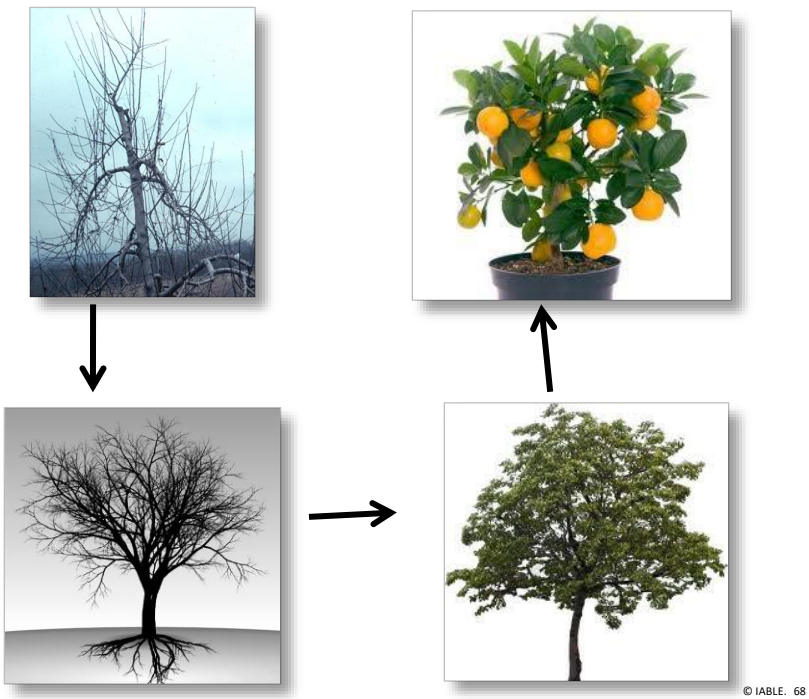

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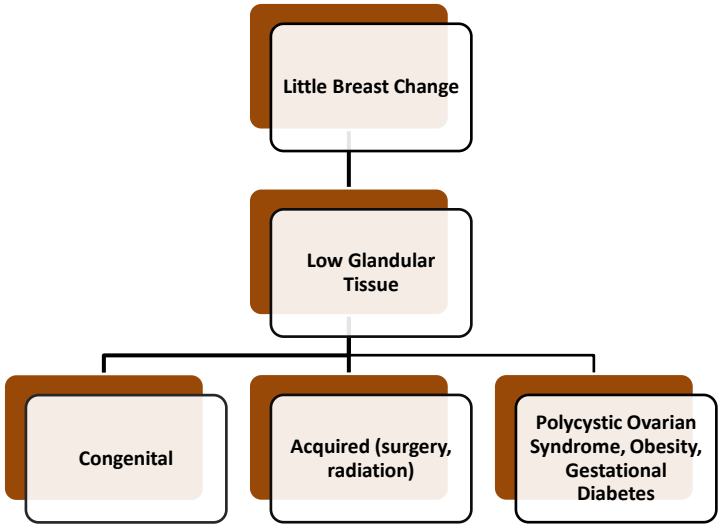
Little or No Breast Changes in Pregnancy



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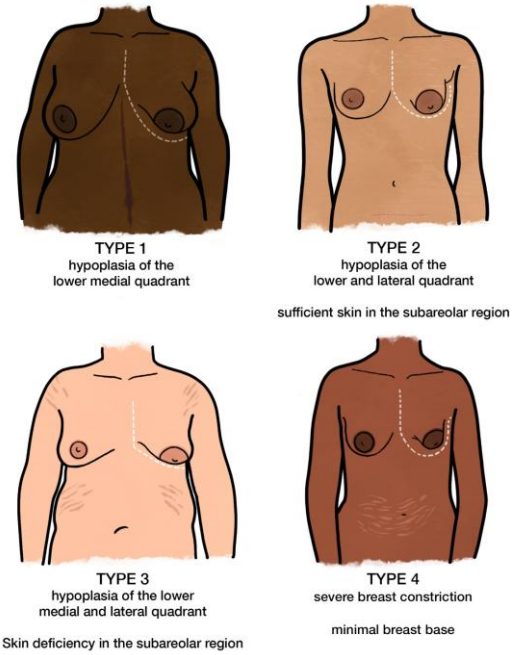

Congenital Insufficient Glandular Tissue

- May or may not report breast growth in pregnancy
- Not related to size of breast
- Shape of breasts can be a clue
  - Widely spaced
  - Nipples point down or outward
  - Large areola on small breasts

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Postpartum Complications Leading to Low Milk Production

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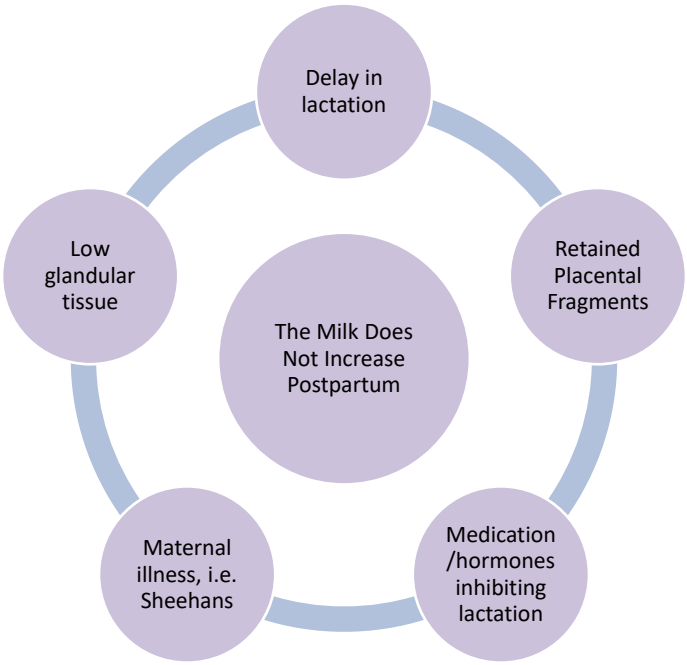

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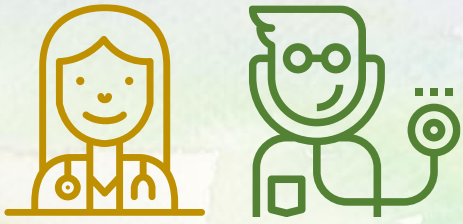
If Minimal/No Milk by 7-8 Days, Refer to a Knowledgeable Physician/Provider



Labs and eval needed for::

- Pituitary function
- Uterus for retained placenta
- Other hormone problems
- Medication side effects

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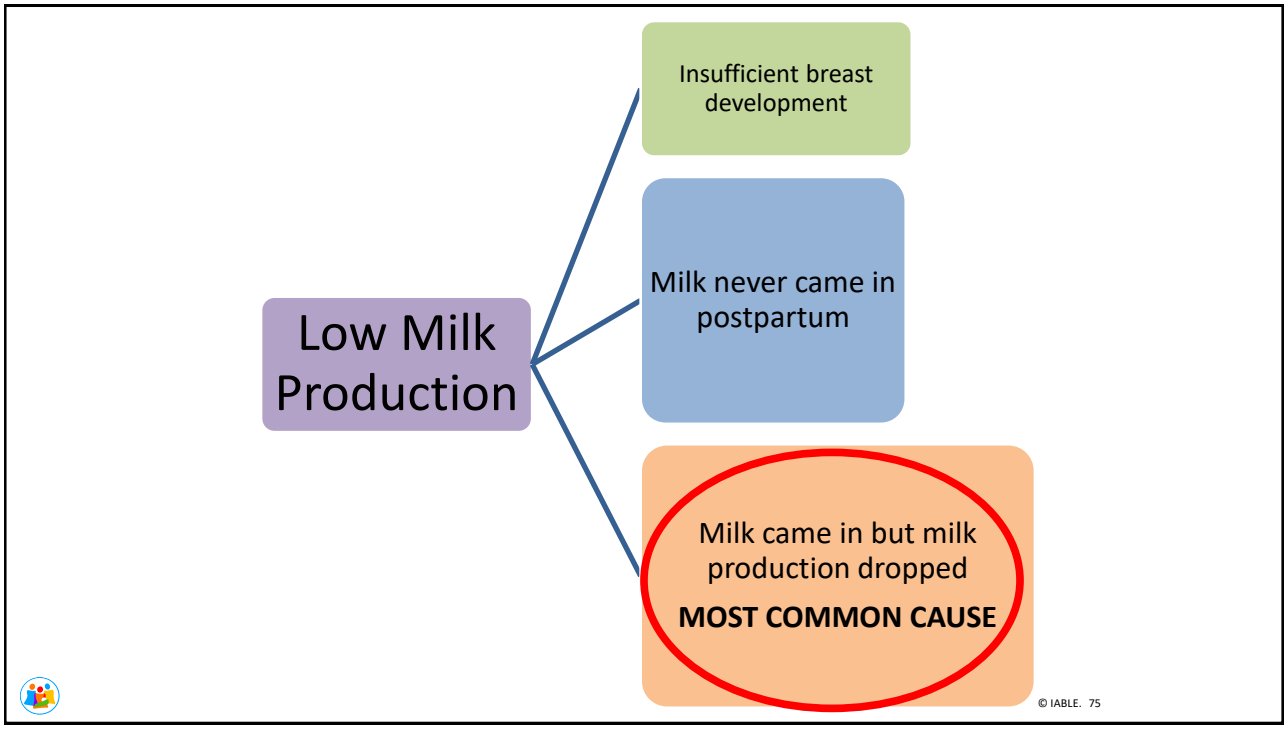
Low Milk Production
Insufficient breast development
Milk never came in postpartum
Milk came in but milk production dropped
MOST COMMON CAUSE
© IABLE. 75

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If the Milk Comes In, How Can a Parent Lose Milk Production in the First Week Postpartum? (review of earlier sessions)

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Medications and Substances that may Decrease Milk Production

- Cabergoline
- Estrogen-containing birth control pills
- Progesterone birth control, esp in the first 6 weeks
- Decongestants- pseudoephedrine
- Aripiprazole (Abilify) and brexpiprazole (Rexulti)
- Nicotine, tobacco
- Alcohol
- High dose steroids
- Epinephrine
- Antihistamines, especially frequent use
- Herbal teas/supplements
- Placenta encapsulation

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First Steps to Increase Milk Production

- Pumping and/or breastfeeding at least every 3 hours with no more than a 5-6-hour break at night
- Avoid medications that decrease production
- Sufficient self-care
  - Eat, drink, sleep

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Galactogogues- Substances That Increase Milk Production

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Commonly Used Galactogogues

- Fenugreek
- Goats Rue
- Moringa Leaf
- Shatavari Root
- Herbal combinations as tinctures/teas
- Metoclopramide- prescription
- Domperidone- non-FDA approved prescription
- Non-prescribers generally not licensed to endorse these products

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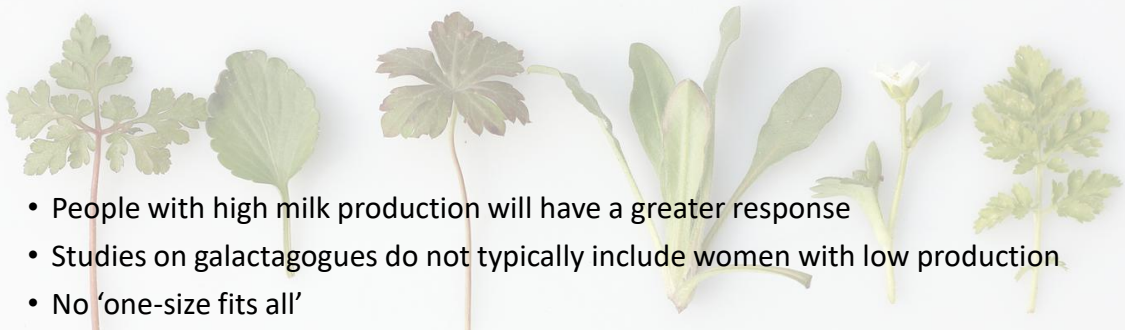
Considerations in Galactagogue Use



- People with high milk production will have a greater response
- Studies on galactagogues do not typically include women with low production
- No 'one-size fits all'
  - People respond differently to different herbs
- Research is generally low quality. Best evidence is cultural experience
- No data on how long to take herbs for effectiveness

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Low Glandular Tissue

Milk production will gradually rise over several months

Goats rue and/or metformin may help

Insulin Resistance

Milk production will gradually rise over several months

Goats rue and/or metformin may help

Milk Production Drops Over Time (assuming no other reason)

More frequent nursing and/or pumping usually increases production

Herbs not typically necessary

Metoclopramide or Domperidone may be needed

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Goat's Rue (Galega Officinalis) or Metformin

- These require approval by their medical provider.
- Both improve insulin resistance early postpartum
- May be the most effective to increase production in the first few months
  - Low glandular tissue
  - Known insulin resistance, such as diabetes before and/or during pregnancy
- Metformin is a prescription that is derived from goat's rue
  - Can cause stomach upset and reduce B-12 absorption.
- Goat's rue is well tolerated by expensive.

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Metoclopramide- Prescription Med

- Requires a prescription from the physician/provider.
- Increases prolactin levels
- Side effects- fatigue, dizziness, depression, seizures, tremors, tics
- Contraindications- psychiatric disorders, seizures
- Dose = 5-10mg 3-4 times a day
- It can double milk volume at most
- Follow the lactating parent closely for depression, anxiety, seizures

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Domperidone- Prescription Med

- Requires a prescription from their physician/provider
- Increases prolactin levels
- Rare neurologic side effects
- Similar efficacy to metoclopramide
- Dose at 10mg 3 times a day
- Not FDA approved in the USA
- Side effects- cardiac, abdominal cramps, rash, itching
- Several medication interactions
  - Fluconazole
  - Lithium
  - Erythromycin
  - + others
- Must be weaned off over time- sudden discontinuation can cause severe depression and suicidality

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Common Foods Believed to Increase Milk Production Based on Culture, Little Research

- **Herbs and Spices**
  - **Garlic, ginger, basil, onions, caraway, anise, coriander, dill, cumin**
- **Hops**
- **Chamomile**
- **Green Leafy Vegetables and sprouts**
- **Grains- oats, quinoa, barley, rice**
- **Nuts and nut butters**
- **Brewers yeast**

Mother-food.com

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When to use Galactagogues

- Galactagogues are not a substitute for optimal nursing/pumping
- Milk production will not increase with supplements alone

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Conclusions Session 5

- Many babies appear to breastfeed well, but they need weight checks to confirm proper growth.
- Weight checks are key to instilling confidence.
- Parents need support in protecting their milk production when babies are not nursing well.

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Conclusions Session 5

- There are many reasons why a parent may have low milk production, and sorting out the underlying reason(s) can be complicated.
- Most parents can increase their production with effective and consistent nursing/milk expression routines.
- Galactogogues do not take the place of regular nursing and breast expression to increase the milk production.

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