

Outpatient Breastfeeding Champion Course Lecture Notes

Feb 2023

Session 5



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Institute for the Advancement
of Breastfeeding &
Lactation Education

The Outpatient Breastfeeding Champion Program Session 5



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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 Breast/chestfed Baby

3

Session 5 Objectives

- Identify 3 symptoms of a 3 day old infant who is not consuming in 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.

4

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.

5

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)



7

Signs of Insufficient Intake



8

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

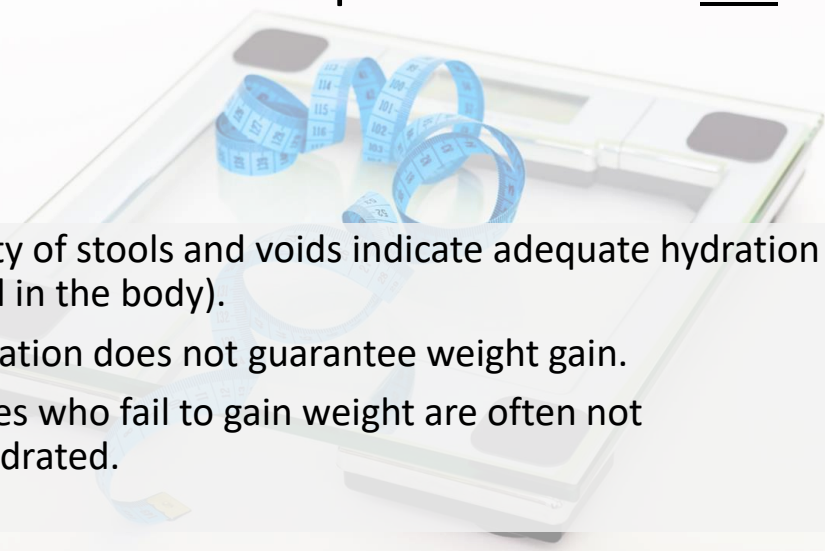
- **Infant Weight=Proof of Adequate Feedings**
 - Feedings cannot be assessed by phone
 - Adequacy of calorie intake cannot be determined by observing feeds
- **Non-gaining babies might:**
 - Have nl # of stools/voids
 - Be satisfied after nursing
 - Spit- up after feedings
 - Sleep all night



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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



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Discussion Case Is My Baby Getting Enough?

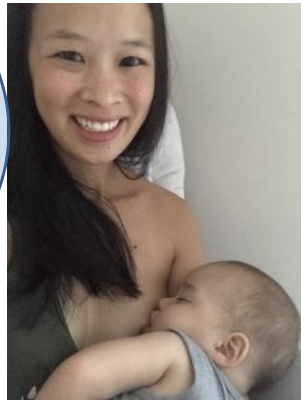
- What are the parent's frustrations?
- What is the parent concerned about?
- How can you help this parent?



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Common Reasons for Insufficient Infant Weight Gain



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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

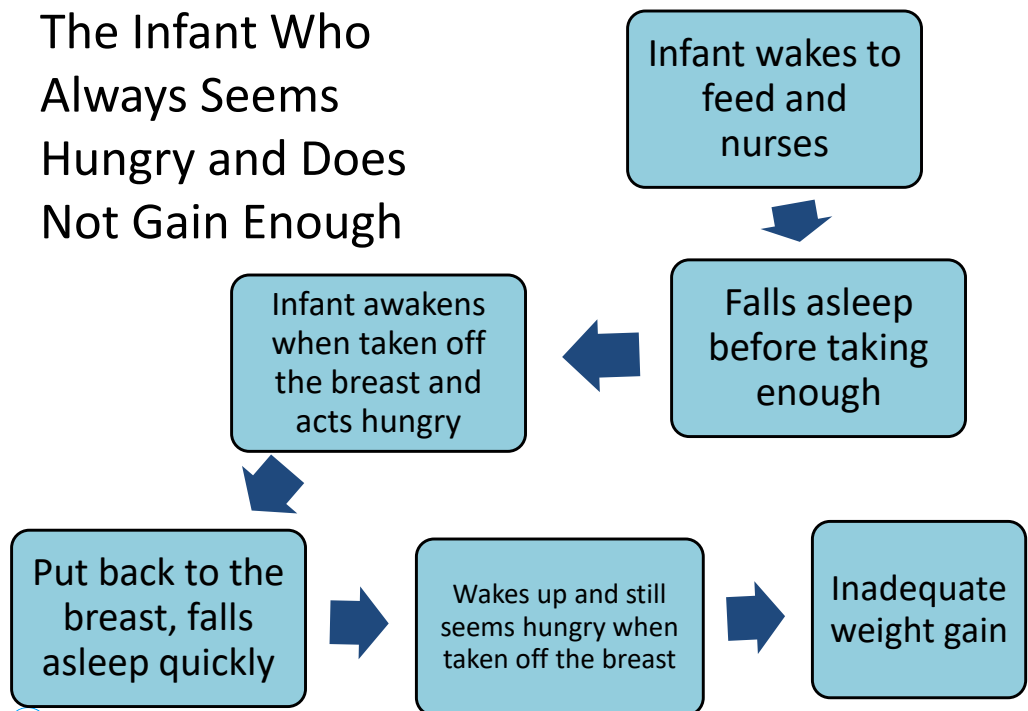


Source: US Breastfeeding committee

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The Infant Who Always Seems Hungry and Does Not Gain Enough



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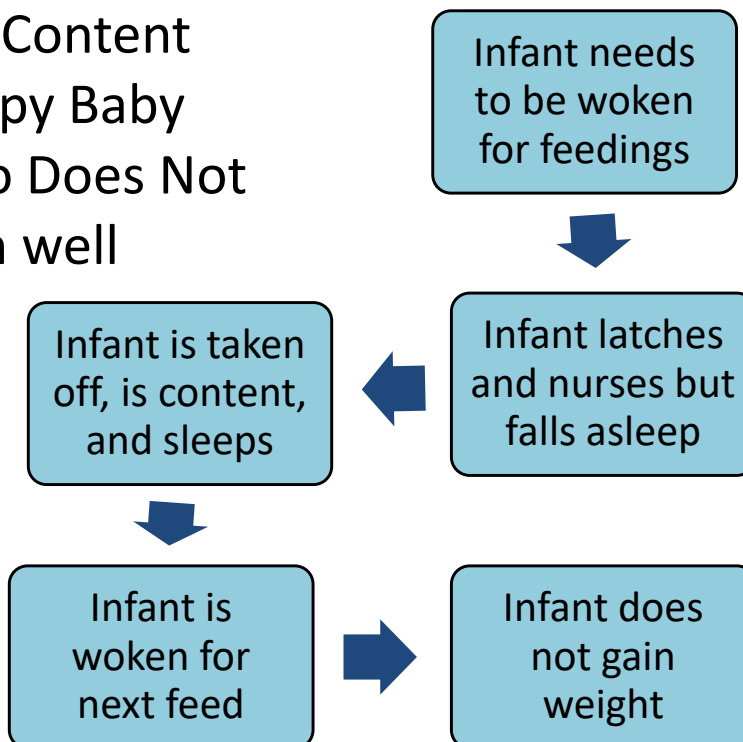
An Infant Who is Sleepy but Wakes Up When Parent Attempts to Take Off the Breast



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The Content Sleepy Baby Who Does Not Gain well



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Why Doesn't Milk Transfer Occur?

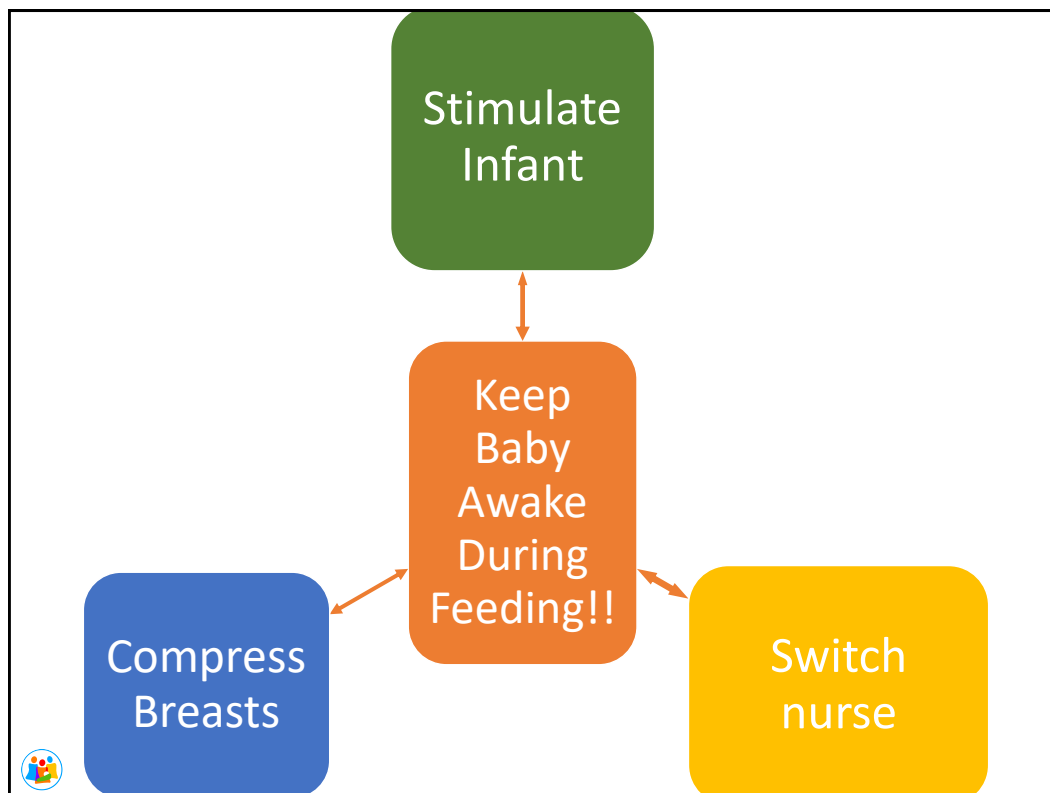
- Breastfeeding is an active process
- The baby has work to initiate milk flow
- Sleepy babies cannot generate this work



Source: US Breastfeeding committee

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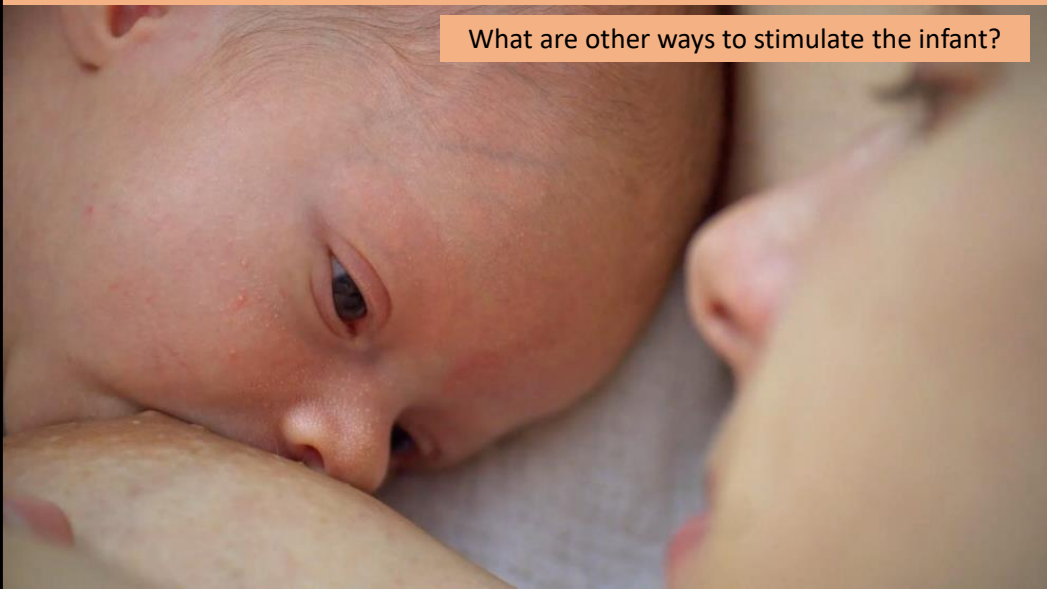
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Keep Infant Awake- Stimulate While at the Breast

What are other ways to stimulate the infant?



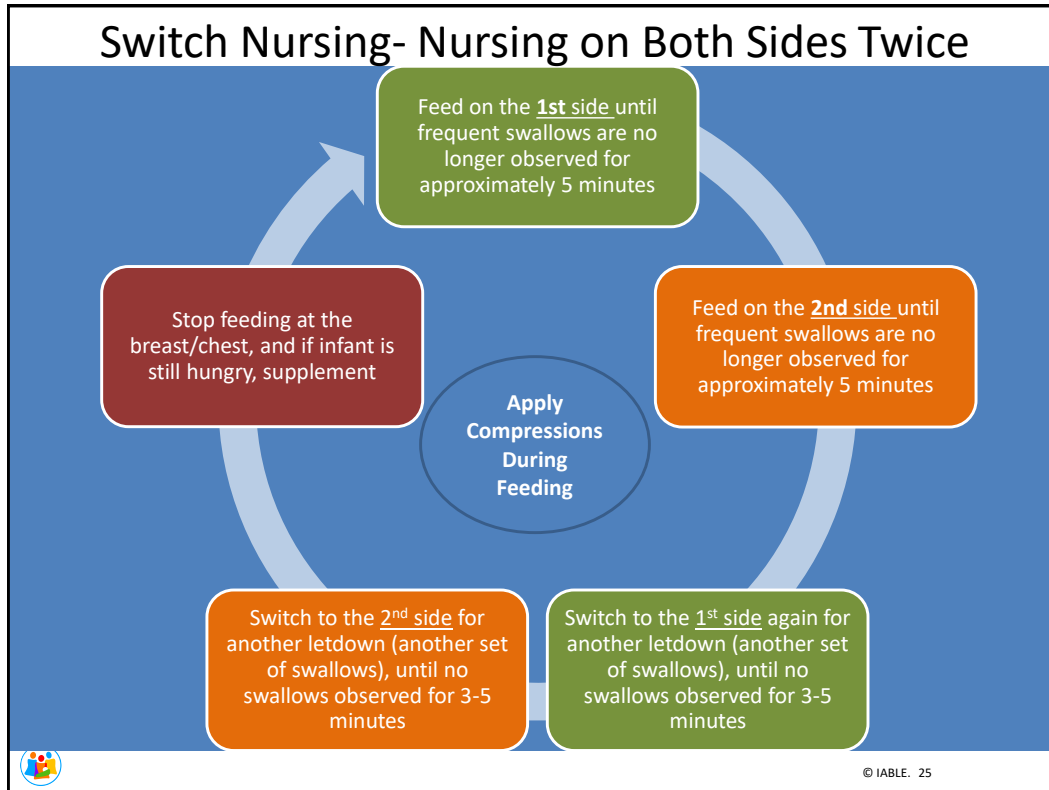
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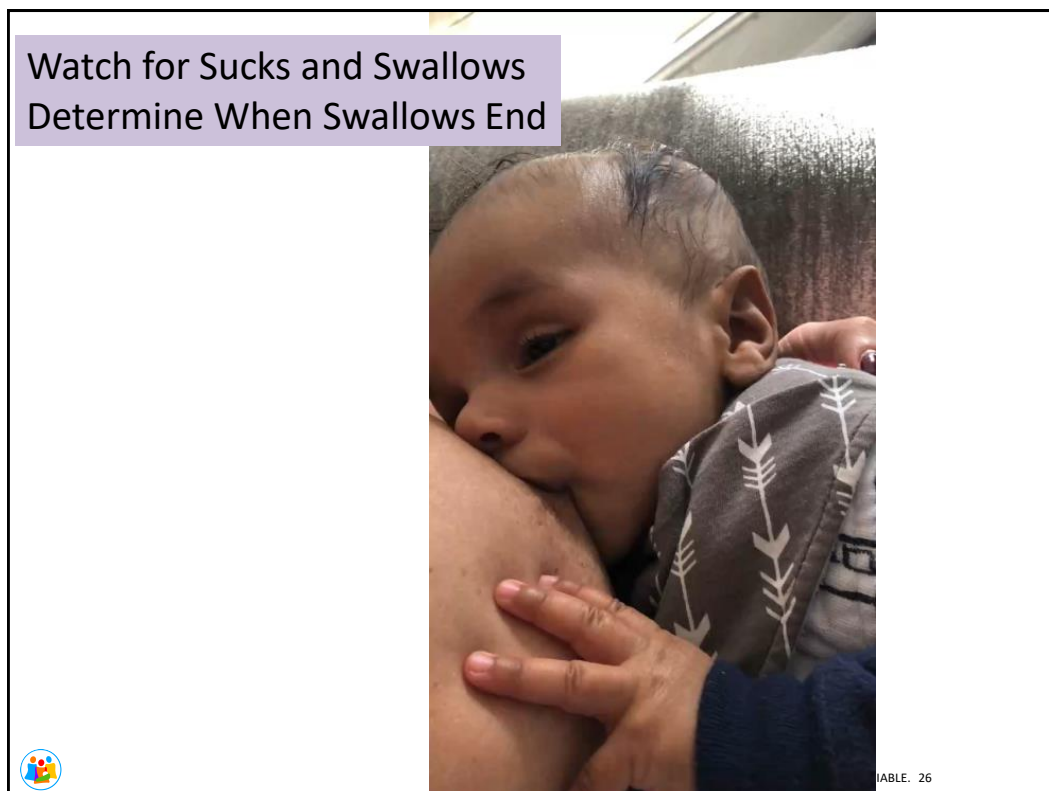
Breast compressions while nursing can help transfer milk to a sleepy infant



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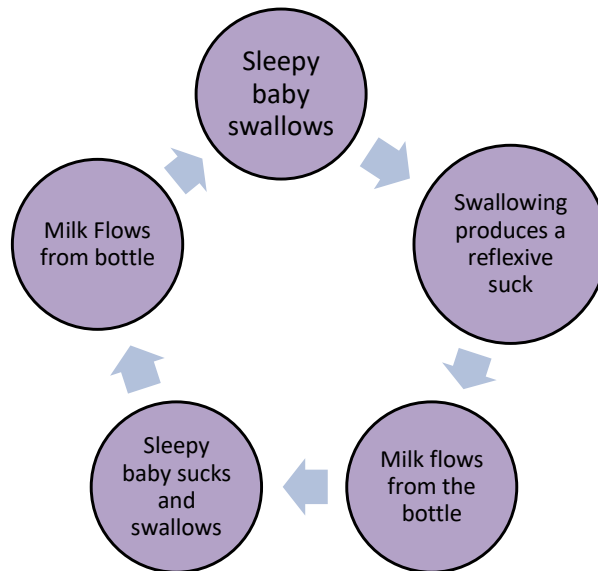
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Supplementing Sleepy Babies

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



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Why Paced Bottle Feeding?

[Click for video](#)



- Slows feeding to mimic breastfeeding
- Prevents overfeeding
- Prevents propping
- Encourages socialization during feeding



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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



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Discussion of Case Sleep Baby

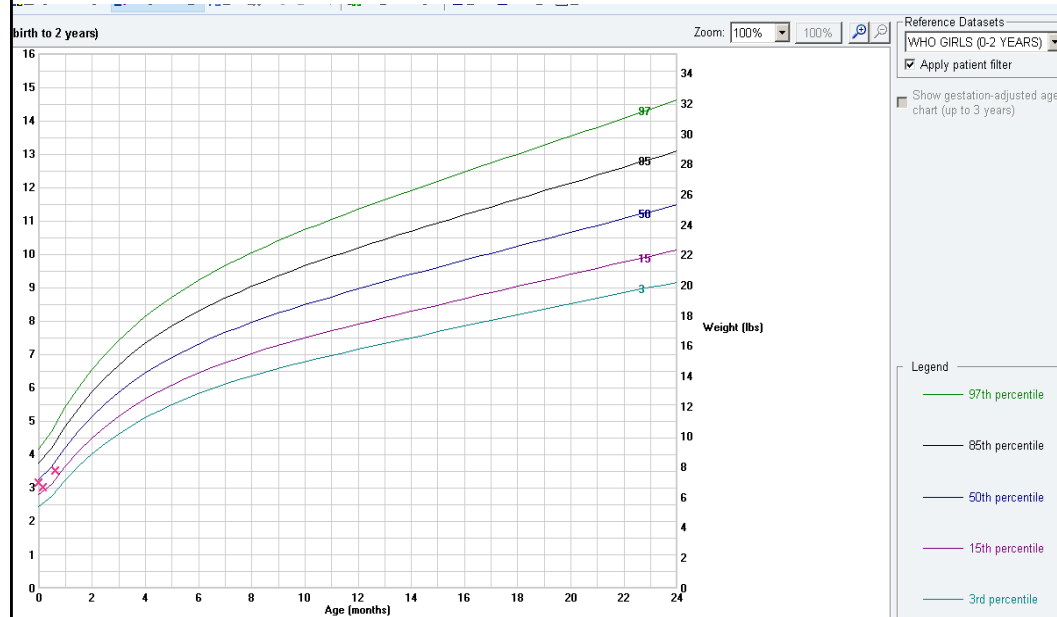
- What are mom's concerns?
- What are helpful pieces of advice?
- How can the breastfeeding champion help her in-person?



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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?

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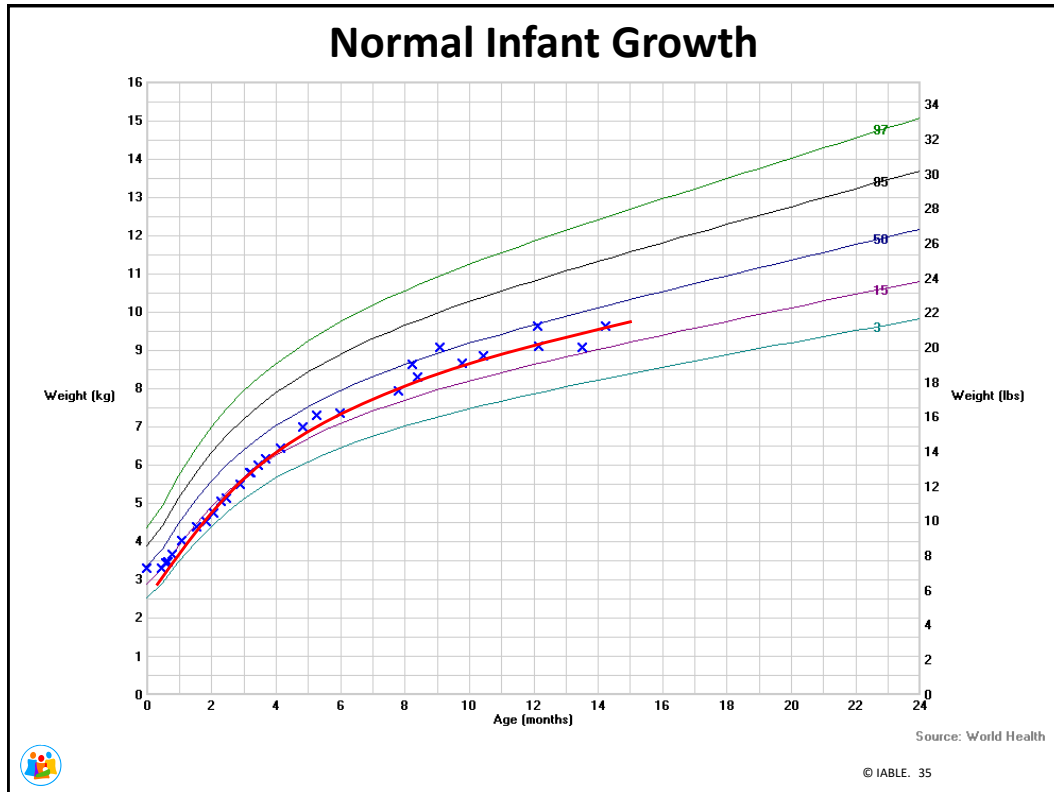
Expected Rates of Infant Weight Gain

Age of Infant	Expected Rate of Weight Gain
The first 2-4 days	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Weight gain/day depends on infant size • Plot the weight on growth chart to determine adequacy of growth

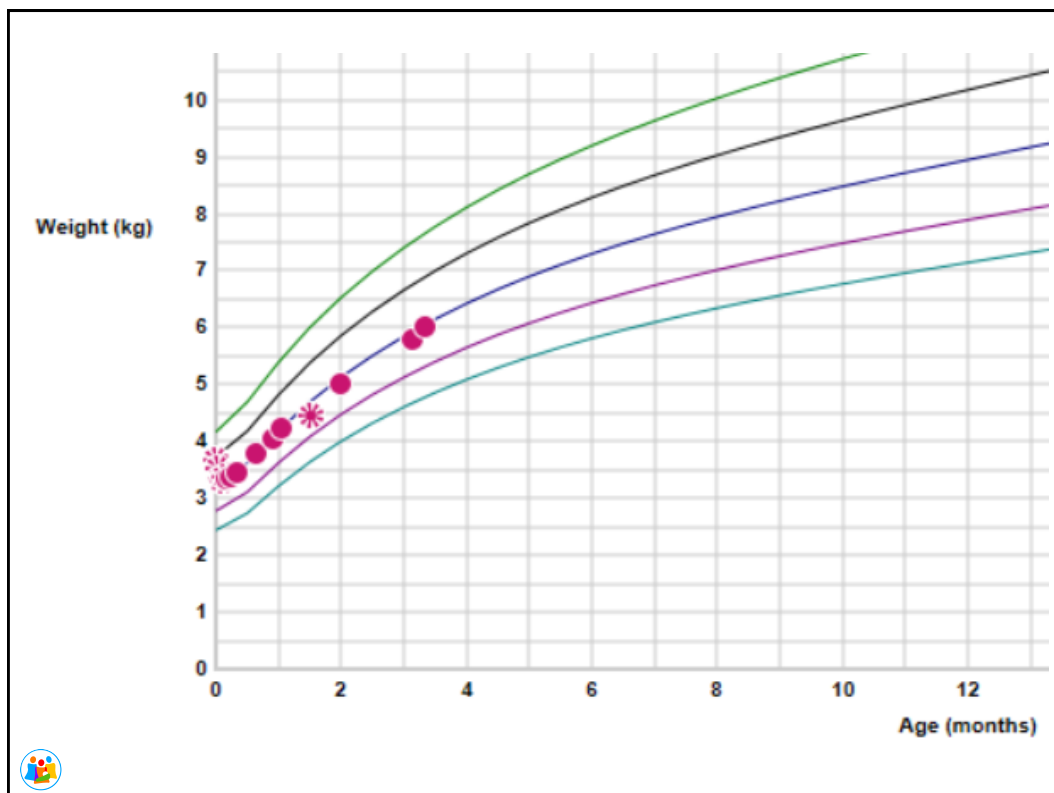


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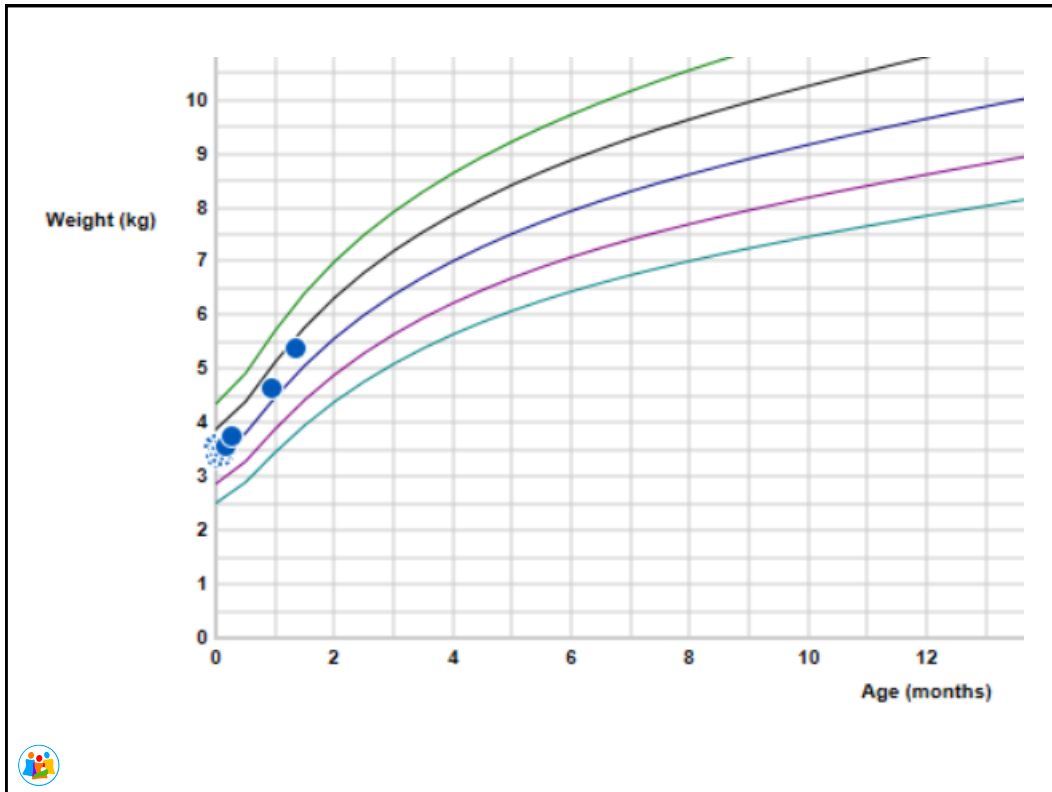
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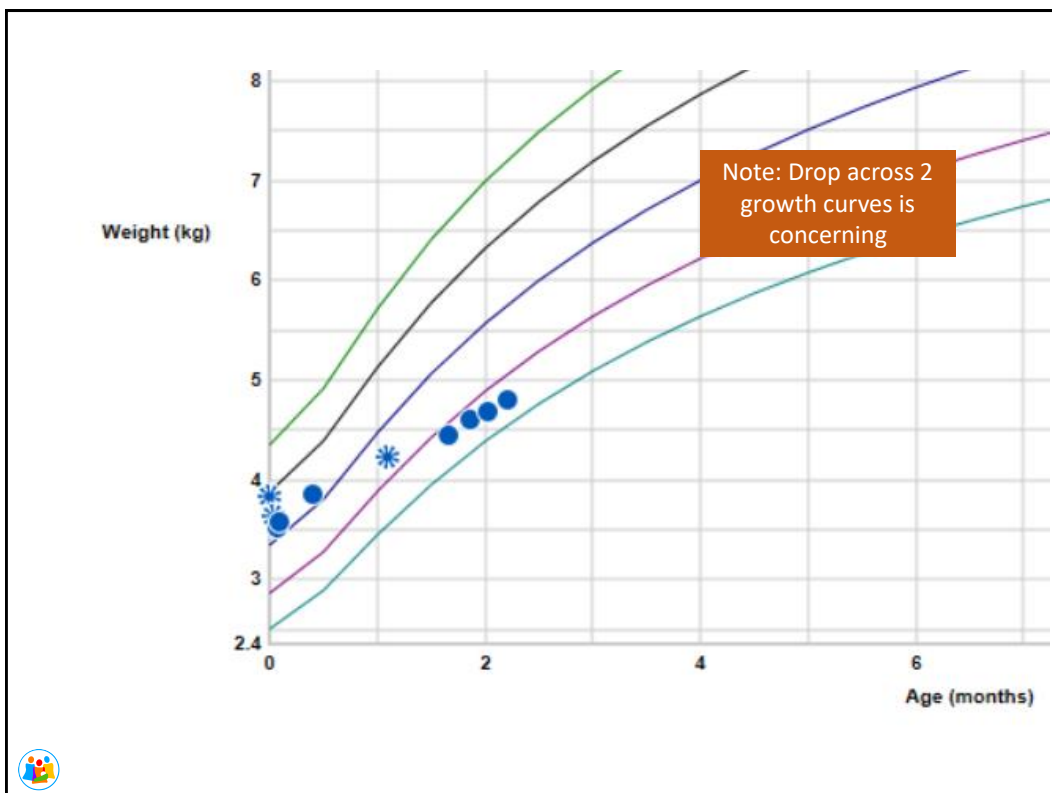
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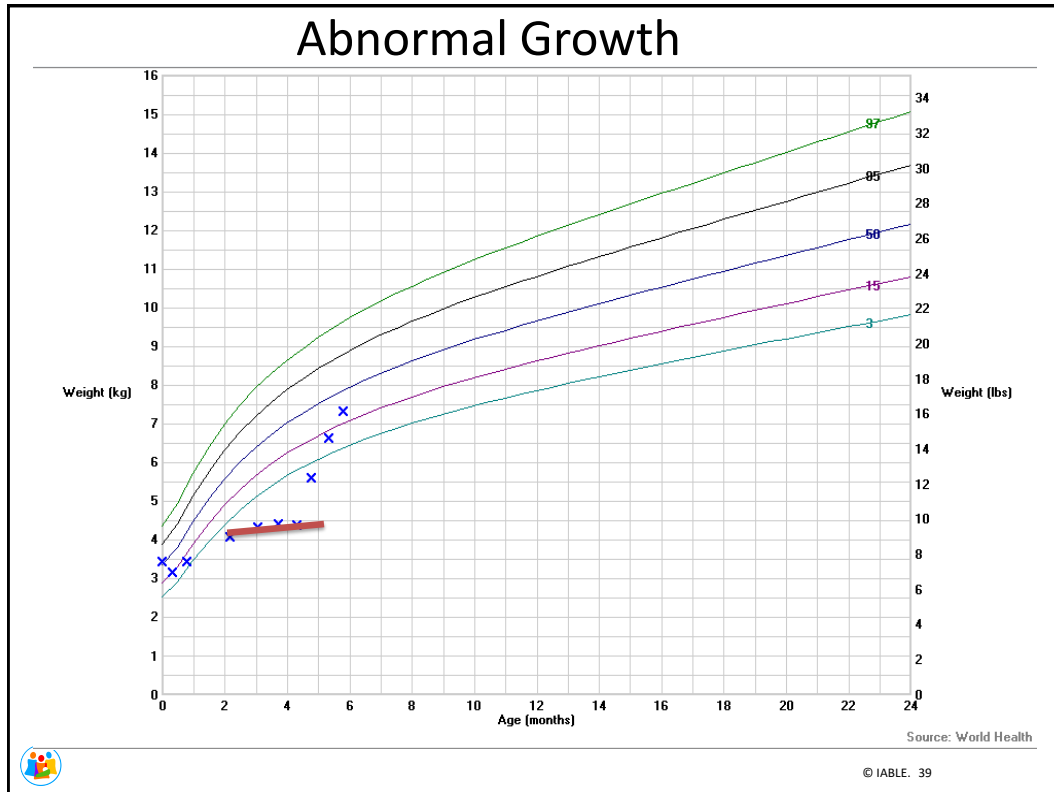
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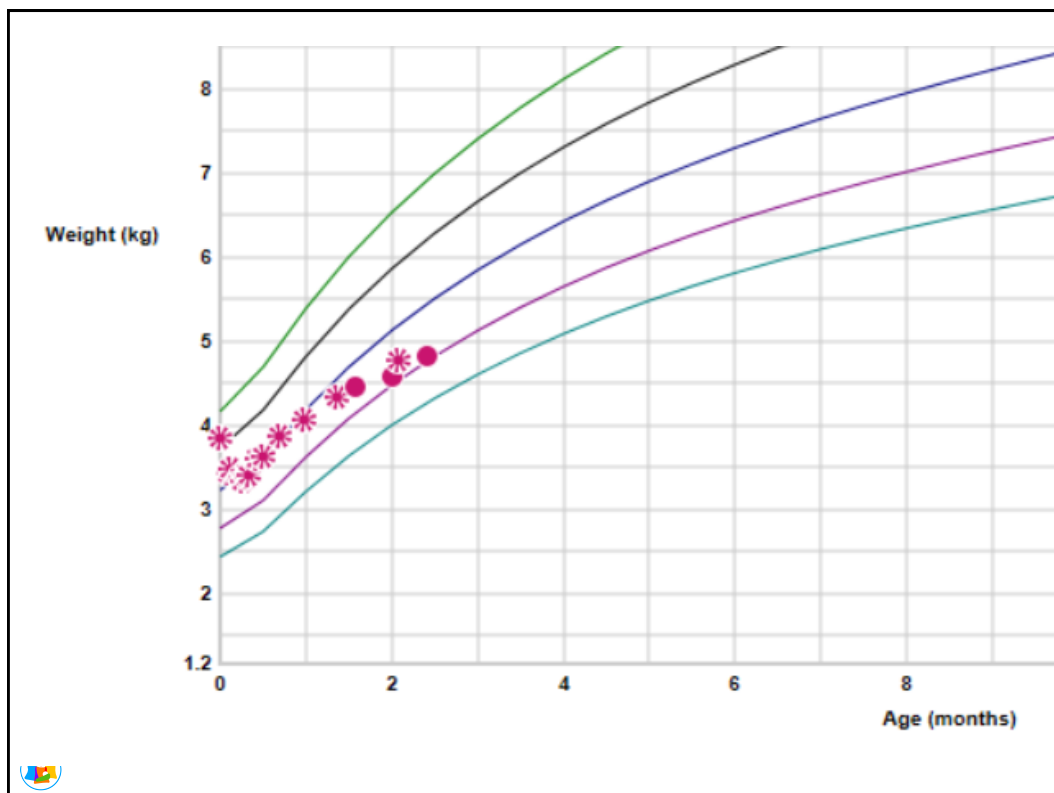
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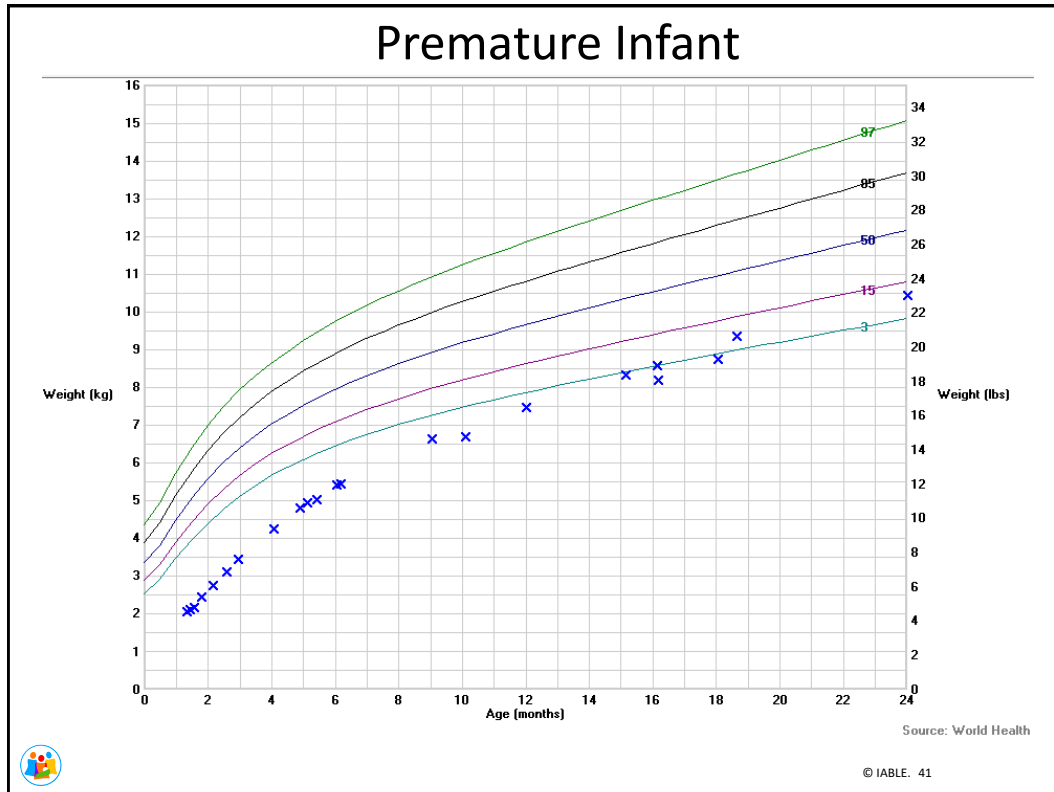
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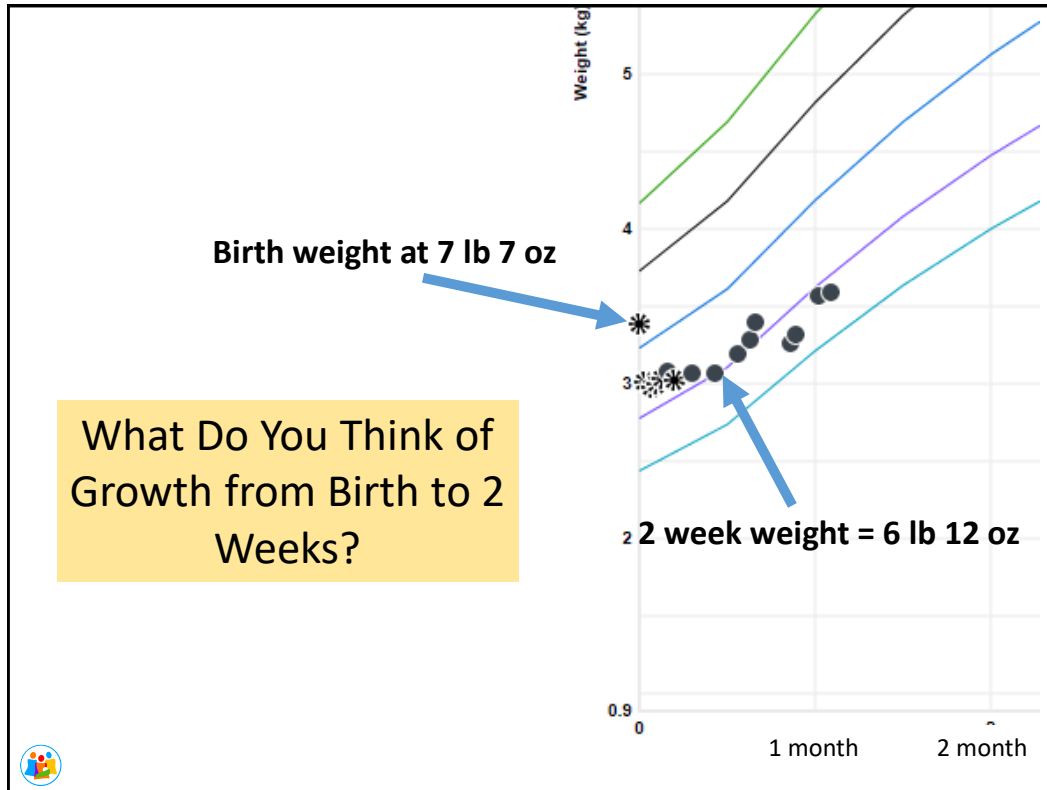
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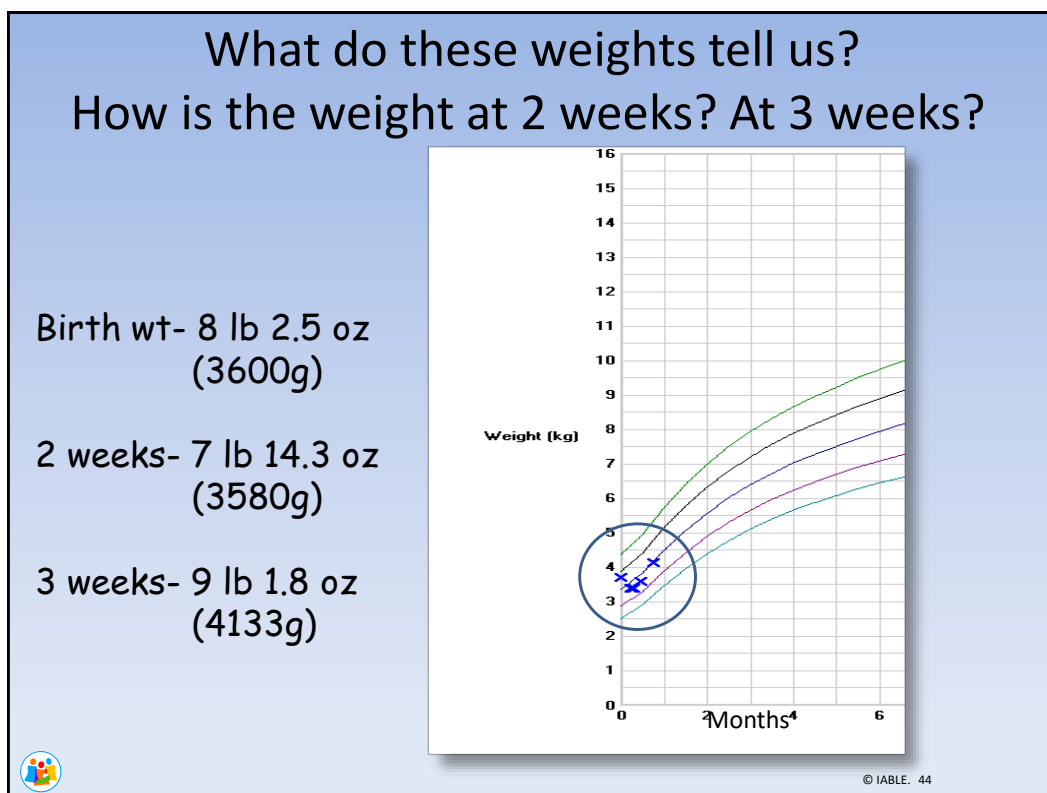
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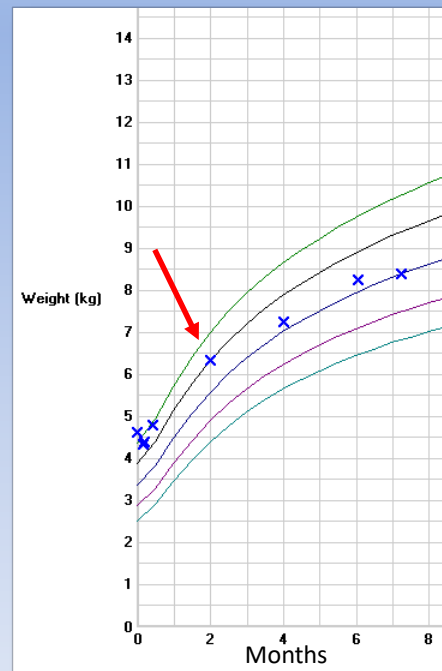


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You are seeing this infant
at 2 months of age.
How is the growth from
birth to 2 months?



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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?

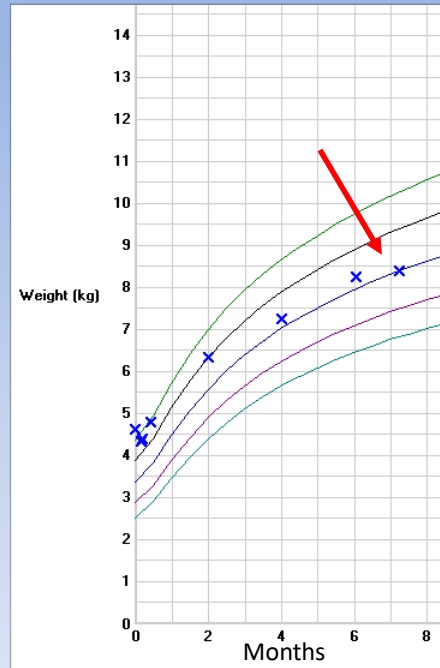


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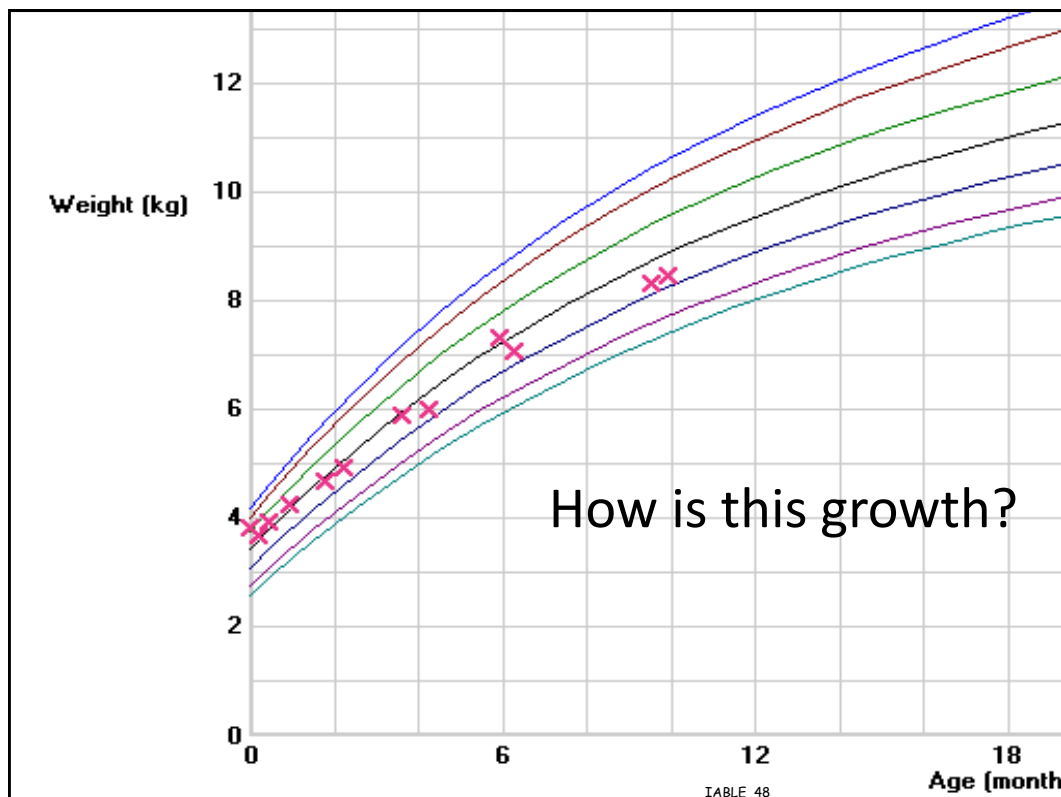
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You are seeing the same infant at 7 months of age.

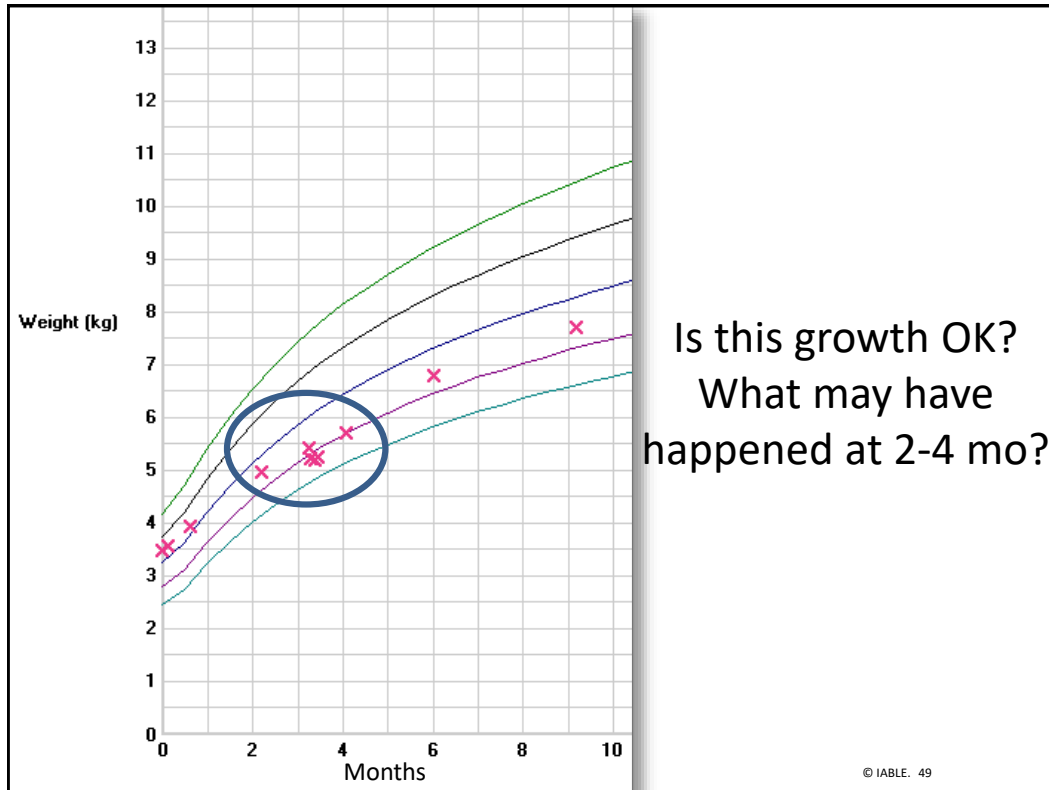
What do you think about the infant's growth, from 4-7 months?



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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 \neq home feeding
- What is the right amount?
 - Is 2.5 oz, 3 oz, or 4 oz 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 Do 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

Cup feeding





Finger Feeding



Tube Feeding at the Breast



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Bottle Feeding


Pros

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

Cons

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

Best Bottles?
-elongated round nipples



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Cup Feeding

Pros

- Does not fulfill infant's suck need
- Cups are easily available and cheap (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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Supplementer at the Breast

Pros

- Saves time
- Increase breast stimulation
- Avoids artificial nipples
- Can help drain 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

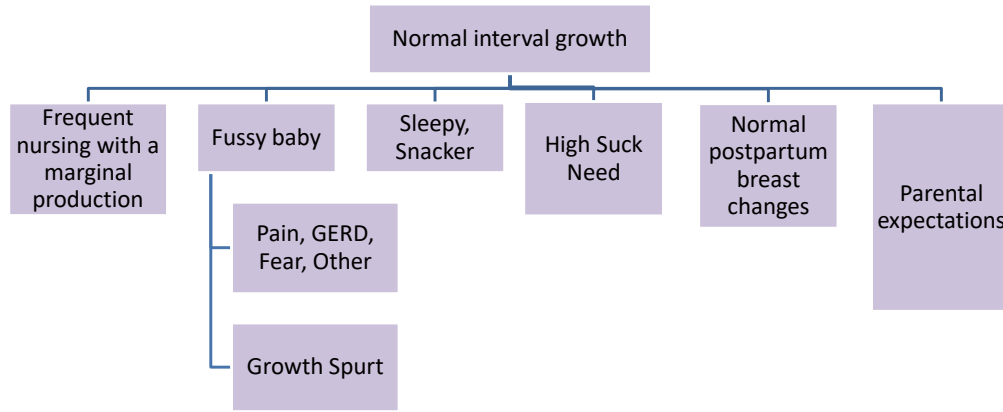
- Identify whether the parent may have low production
- Cannot diagnose etiology
- Support the milk production
 - Advise frequent nursing
 - Pump after feeding
 - Unless infant empties the breast thoroughly
 - Help parent access a pump
 - Advise on milk storage



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Perceived Low Milk Production



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If Interval Growth is Normal

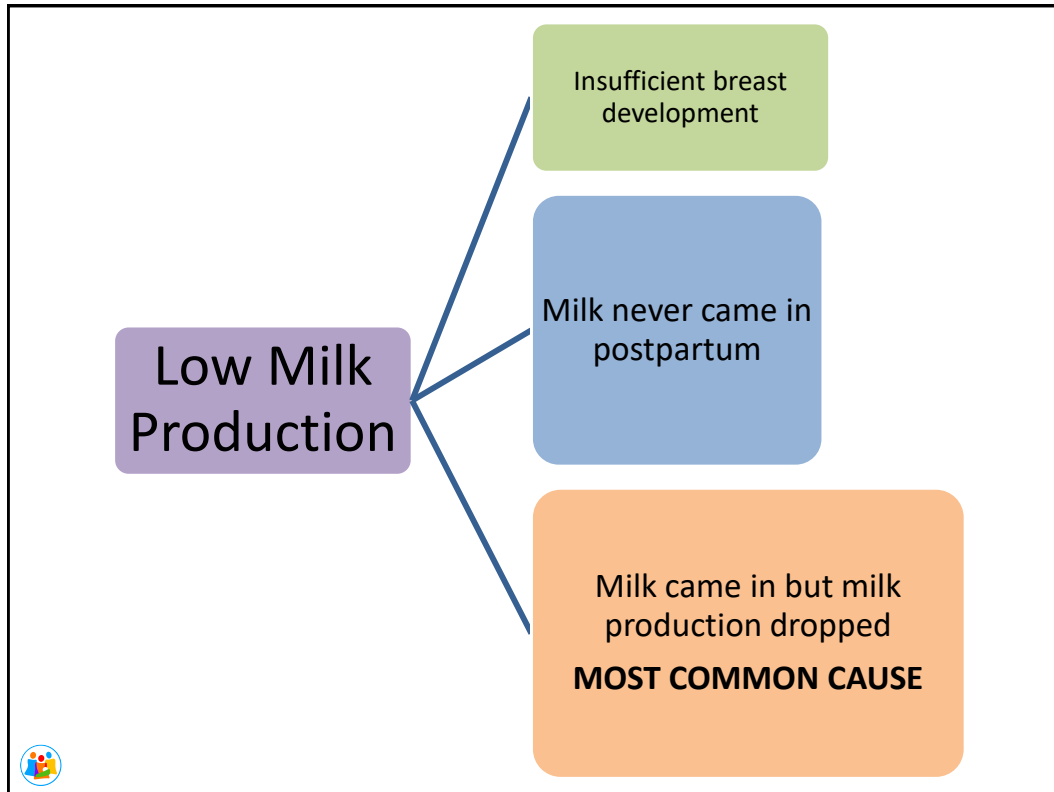


- Reassure
- Make sure that production is not marginal
- Advise on keeping baby awake with feedings
- Evaluate family's expectations
- Identify growth spurts
- Could consider a pacifier if needed



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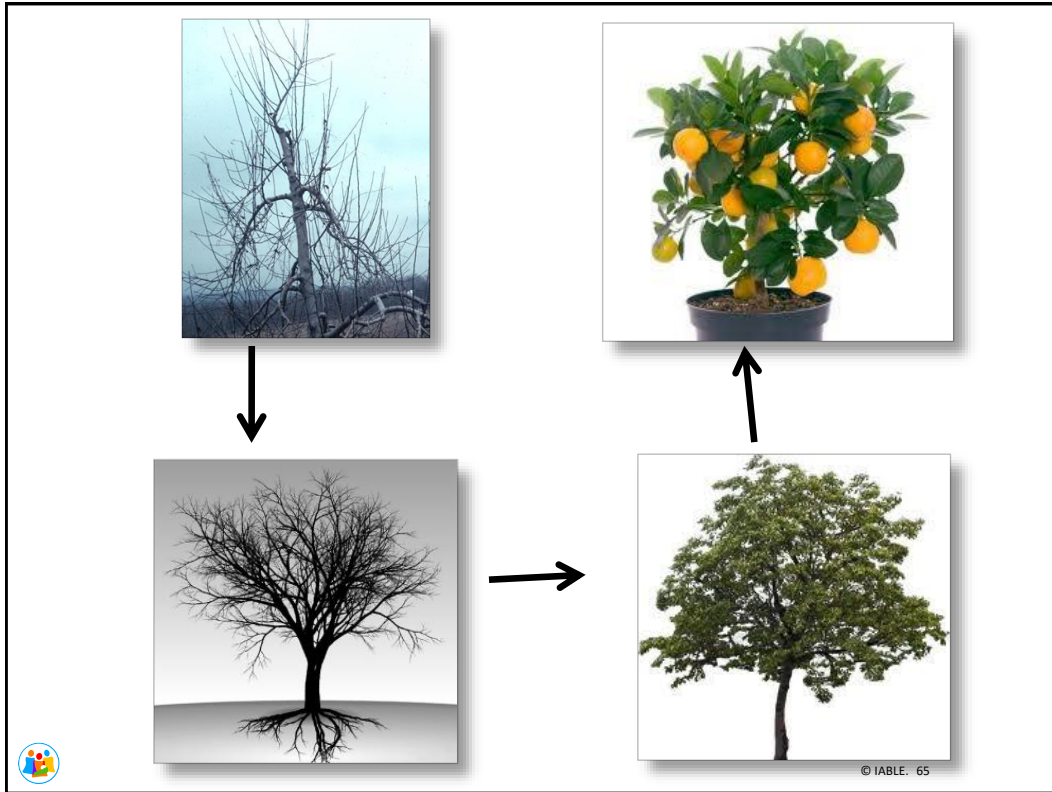


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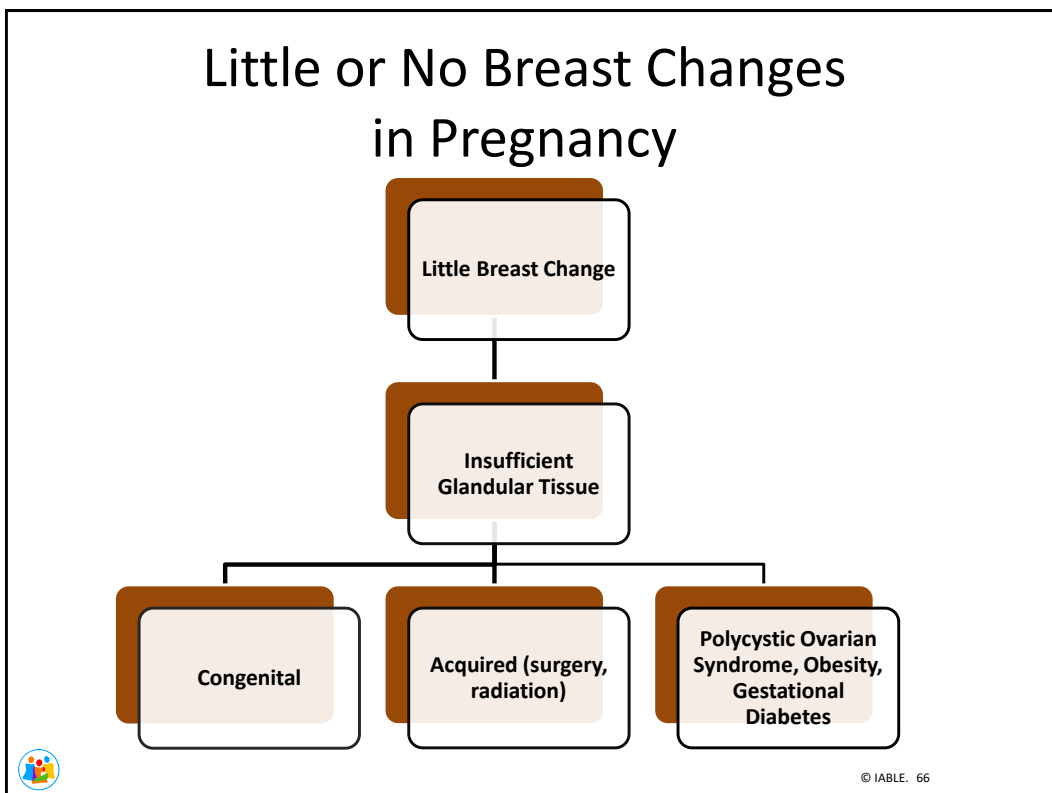
Prenatal Reasons for Low Production



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66

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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Hormonal Interference

- High Androgens
 - Obesity
 - Polycystic Ovarian Syndrome
 - Diabetes
 - Pre-eclampsia
- Insulin resistance
- Meds (aripiprazole)



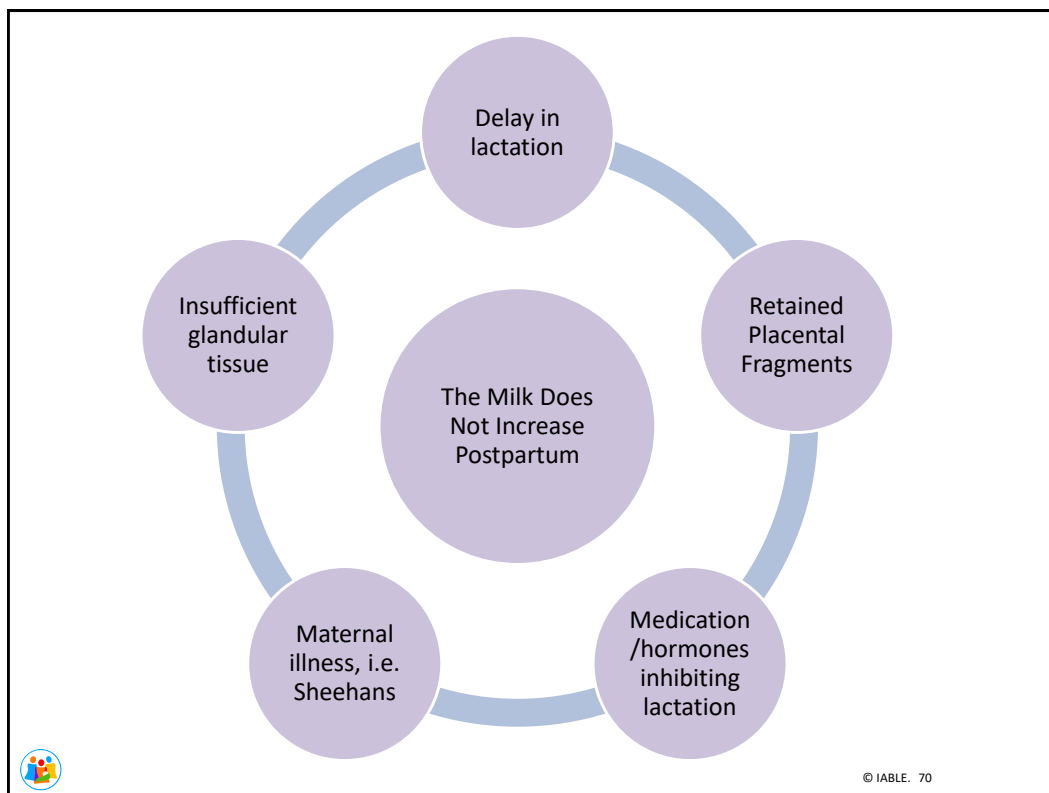
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Postpartum Complications Leading to Low Milk Production



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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



72





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

73

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)
- Nicotine
- 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 breast/chestfeeding at least every 3 hours with no more than a 5-6 hour break at night
- Avoid medications that decrease supply
- Sufficient self-care
 - Eat, drink, sleep



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Galactagogues- Substances That Increase Milk Production



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Commonly Used Galactogogues

- Fenugreek
- 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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Fenugreek

- Considered possibly safe by the FDA in medicinal amounts
- Dose- 500mg-610mg caps of crushed seeds, 2-3 caps 3x/day
- Side effects- body odor, GI upset for mom, GI upset for baby
- Risks-Avoid if allergic to legumes/peanuts, can worsen asthma, low blood sugar
- Not found to be very effective in research studies



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Shatavari- Asparagus Racemosus

- Root is the active, safe part of plant
- Side effects- headache, slight risk of a decrease in milk production
- Interacts with Lithium
- Dose is 800mg-1000mg 3x/day



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Moringa=Malunggay

- Used grown and consumed in tropics
- Leaf portion shown in some studies to milk production
- Dose is 500mg-1000mg 3x/day
- Side effects- stomach upset for infant
- Possible interaction with thyroid medication
- Can increase the risk of blood clots

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Herbal Combinations

- Many brands
- Wide variety of herbs
 - Nettle
 - Blessed thistle
 - Milk thistle
 - Goats Rue
 - Fennel
 - Fenugreek
 - Saw Palmetto



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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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Metoclopramide- Prescription Med

- 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

- 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



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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, marshmallow
- 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 Galactogogues

- Galactogogues 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 breast/chestfeed well, but they need weight checks to confirm proper growth.
- It is important to instill confidence in lactating parents by weighing babies whenever they are concerned about the baby taking enough milk.
- 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 tricky.
- 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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