Mothers with a body mass index \( \geq 30 \):

- 13% lower rate of breastfeeding initiation
- 20% lower rate of breastfeeding at 6 months

May produce less milk—why?

- Leptin: blunts oxytocin
- Prolactin: reduced at 2-7 days postpartum
- Free androgens: increase with increasing BMI
- If overweight is a related to hypothyroidism:
  - Multiple sources now recommend serum TSH levels between 0.5 and 2.5 for pregnancy and perhaps lactation as well
  - No breast size increase in pregnancy?
- Associated with higher blood pressure, fasting insulin, triglyceride levels, and obesity

Babendure, International Breastfeeding Journal 2015

Vanky, BJOG 2012

Psychosocial factors

- Reduced confidence in their ability to reach their goals
- Fewer close friends/family who breastfed
- Lower social influence to breastfeed
- Lower self efficacy
- Body image concerns, body dissatisfaction

However, when controlling for variables, association with BMI disappeared, and only education, marital status, planned breastfeeding duration and rating of breastfeeding importance impacted duration.

Babendure, International Breastfeeding Journal 2015

More likely to have delayed onset of lactation—why?

- Increased incidence of:
  - Edema, associated with delayed onset
  - Longer and dysfunctional labor
  - Cesarean birth
  - May be related to leptin-dependent blunting of oxytocin
  - Less steep decline in insulin from end of pregnancy to onset of lactation

May produce less milk—why?

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Babendure, International Breastfeeding Journal 2015
La Leche League International's online magazine:
“Obese Mothers Can Breastfeed”

http://breastfeedingtoday-llli.org/obese-mothers-can-breastfeed/

How we can help prenatally:
Ask about their goals

Prenatally:
Teach breast milk expression

Positioning: cradle hold and laid-back can work

Positioning

Cross-cradle hold, maybe with a “shelf”
Support the breast if needed
Rolled cloth, sling, pillow *(Udderly Yours, UpSpring)*

*Breast is Best* video clip:
**Breast support**

Under-the-arm hold

Pillows can be helpful

Luna Lullaby pillow fits all sizes
Side-lying

Laid-back

Not all obese women have large breasts

Animal studies suggest obesity in early life may negatively impact breast glandular development

Plus Size Nursing Bras
Breastfeeding Pearls for Maternal Obesity and Mental Health Challenges

Ginna Wall, RN, MN, IBCLC
gwall@uw.edu

Breast is Best video clip:
Hand expression for edema

Hand expression for when babies don’t latch

Morton, Breastfeeding Medicine 2014

Low-risk mother/baby:
• **A** - Attachment (latch and milk transfer immediately after birth, but may still take time to master)
• **B** - Breastmilk production (early, frequent, and effective feedings)
• **C** - Calories (needs are small, reserves are adequate, prioritize A & B)

At-risk mothers/babies:
• **C** - Give colostrum (8 times a day, donor milk or formula if needed)
• **B** - Breastmilk production (hand-expression, add a pump if needed)
• **A** - Ease the pressure (transition to full breastfeeding may not occur for a few weeks)

How nurses can help:
Lactogenic foods, herbs, teas

Galactogogue herbal tea

Apple tea

Control

milk volume at one pumping session on Day 3

Privacy, modesty, nursing discretely

Turkyilmaz, THE JOURNAL OF ALTERNATIVE AND COMPLEMENTARY MEDICINE 2011
Özalkaya, NIGER J CLIN PRACT 2018
Breastfeeding Pearls for Maternal Obesity and Mental Health Challenges

Approach to the patient

- Breastfeeding is emotional
- Commenting on someone's body is emotional
- Defeminization - motherhood is deeply connected to our image of femininity and failure to breastfeed can be defeminizing. Failure to have a perfect body is also defeminizing.
- Words: there is no consensus on the socially correct term.
- The worst thing you can do is be weird about it.
- Examine your own prejudices and your own insecurity and experiences about your own body
- Just make eye contact, remember that it's a person, if you want to be an ally, a great person

Body image

- Body image predicts far more strongly than weight whether they breastfeed.
- How a woman feels about her body not only predicts how long she breastfeeds, but how many difficulties she has.
- Women who have the most body image concerns have the most complications with pain or difficulties with latch...regardless of their weight.

Body image concerns: what are they?

- Being looked at while breastfeeding
- Exposing their body
- Breasts now having a new function
- Worrying their breasts don't look right
- Worrying their breasts are too big or too small to feed a baby
- If a difficult birth, feeling their body doesn't work properly, rather than just being about feeling 'attractive' it can be about how it works
- Women are discouraged from feeling pride in their bodies

Building her confidence

- Gently move to the conversation to talking about how she feels about her body
- Bring it up as a concern a lot of mothers have; see where she goes from there.
- Talk about the value of what she is doing, laws protecting her, practical tips, how to nurse in public, practicing in front of a mirror

Mental Health and Breastfeeding

- Success (or lack thereof) with breastfeeding has a chicken/egg relationship with depression/anxiety
- Mothers with depression/anxiety have different responses to breastfeeding - hard to track or predict
- Medications - can decrease milk production, and those that increase it may have mental health side-effects
- Recommendations of therapists can conflict with lactation practices
- A word about “Dysphoric milk ejection reflex”
The effect of negative postpartum mood on breastfeeding

Results from 33 studies indicate that women with symptoms of postpartum anxiety:
• Are less likely to breastfeed exclusively
• Are more likely to terminate breastfeeding earlier
• May be less likely to initiate breastfeeding
• May be more likely to supplement with formula in the hospital.

In those who do breastfeed, postpartum anxiety reduces self-efficacy, increases breastfeeding difficulties, and may negatively affect breastfeeding behaviors and breast milk composition.


The impact breastfeeding struggles can have on mother’s mental health

• Study of 217 mothers who stopped breastfeeding before 6 months
• 32 mothers scored high on the Edinburgh Postnatal Depression Scale
• Short breastfeeding duration and multiple reasons for stopping were associated with higher depression score
• In analyzing the specific reasons for stopping, only physical difficulty and pain remained predictive of depression


Teasing out what is behind the association between breastfeeding experience and depression:

• Pain in general is associated with increased risk of depression
• Lack of sleep and anxiety about the infant are associated with increased risk of postpartum depression
• Mother’s feeling that she has failed
• Stopping because the experience is too distressing, not because she sees a benefit to stopping

Mothers with depression:
• May perceive breastfeeding as more difficult or painful
• Find infant care in general more difficult
• Perceive infant as crying more
• Are less sensitive in their touch and positioning of the infant
• Have underlying physical difficulties that contribute to breastfeeding problems: difficult birth, pain, etc.


There may be underlying psychological factors:

• High maternal anxiety and introversion
• Lower maternal self-efficacy, self-belief and confidence

...are associated with increased breastfeeding difficulties and shorter duration


Dysphoric Milk Ejection Reflex, “D-MER”

Words mothers use to describe D-MER:
• hollow
• intense
• feels like
• seconds
• stomach
• rush
• overwhelming
• minutes
• fade away
• feelings

• before letdown
• loss of appetite
• wave
• sudden
• pit in stomach
• negative
• gut-wrenching
• throat tightening
• visceral

Before The Letdown: Dysphoric Milk Ejection Reflex and the Breastfeeding Mother, 2017

Alia Macrina Heise, IBCLC

Ginna Wall, RN, MN, IBCLC
gwall@uw.edu
Questions To Ask To Help Mothers Share About Possible D-MER

- How is breastfeeding going?
- How is it different than how you expected it to be?
- Do you get those stereotypical “warm fuzzies” when you nurse? Not all women do.
- How have you been feeling?
- Any hints of anything that looks like the baby blues or PPD?
- Do you like nursing?
- How does breastfeeding make you feel?
- Do you ever sit down to nurse and suddenly realize how tired you are and how much work all this is?
- Does it ever surprise you how emotional becoming a new mother can make you?
- Have you ever stopped to notice how you feel right before and during letdown? Some moms experience such different things!
- Have you ever heard of dysphoric milk ejection reflex?

Book: Before The Letdown: 2017

How nurses can help:
Use LactMed to look up their meds

- In its 12th year
- Free web and great app
- Updated monthly
- Endorsed in 2013 by the American Academy of Pediatrics

How nurses can help:
Massage to reduce stress and anxiety, increase breastfeeding

“...hands first and the feet next.”

Massage for post-cesarean mothers

A significant (P < 0.001) reduction was observed in:

- intensity of pain immediately and 90 min after massage
- Blood pressure and respiration rate
- Anxiety level

A significant increase was observed in the frequency of breastfeeding!

Saatsaz, Complementary Therapies in Clinical Practice 2016
How nurses can help:

Help parents understand infant sleep-wake patterns

Short RV. Scientific American. 1984

What the research shows about infant sleep:

• 72% of babies sleep through the night on at least one occasion by 3 months
• ...but many go back to more frequent night waking in the 4-12 month period
• Less than 2% of babies under 6 months regularly sleep through the night without breastfeeding (Hornel, Acta Pediatr 1999)
• 50% of 12-month-olds require parental intervention to get back to sleep (Goodlin-Jones, J Dev Behav Pediatr 2001)

All New Mothers are Tired

• A study comparing the perceived fatigue of breastfeeding and bottle-feeding mothers (measured during the first 4 days and at 6 and 12 weeks)
• No difference between breastfeeding and bottle-feeding mothers at any time point
• EVEN when women who had stopped breastfeeding at 6 and 12 weeks were moved to the bottle-feeding group

Callahan JHL May 2006

“Breast-feeding Increases Sleep Duration of New Parents”

Doan et al. University of California at San Francisco

• Study of 133 new families:
• RESULTS: Parents of infants who were exclusively breastfed in the evening and at night slept an average of 40-45 minutes more and reported less sleep disturbance than parents of infants given bottles (of either breast milk or formula) at night
• CONCLUSIONS: Parents who supplement their infant feeding with bottles under the impression that they will get more sleep should be encouraged to continue breastfeeding

Callahan JHL May 2006

Exclusive Breastfeeding Associated With Better Sleep for Mothers

• 4,191 mothers, 7 weeks post-birth
• Used validated tools to measure:
  • Sleep (Pittsburgh Sleep Quality Index)
  • Depression (Edinburgh Postnatal Depression Scale)
• The prevalence of problems was:
  • Sleep problems, 57.7%
  • Depression, 16.5%

Dorheim et al (2009) Sleep and depression in postpartum women. Sleep

Exclusive Breastfeeding Associated With Better Sleep for Mothers

• Mothers report an average of 6.5 hours sleep
• Factors associated with poor sleep quality were depression, previous sleep problems, being primiparous, not exclusively breastfeeding, or having a younger or male infant
• Poor sleep was associated with depression independently of other risk factors

“Mothers who use a breast pump to express milk in the day and then bottle feed it to a baby at night may let themselves in for a sleepless night”

- Cristina Sánchez and colleagues looked at the concentrations of 5’UMP, 5’AMP and 5’GMP – the three nucleotides most strongly associated with sleep and sedation – in the breast milk of 30 healthy mothers who had been breast-feeding for at least 3 months. Samples of milk were collected before each feed over a 24-hour period.
- They found that concentrations of:
  - 5’AMP were highest at the beginning of the night
  - 5’GMP and 5’UMP increased as the night wore on
  - These sedatives were at much lower concentrations in milk expressed during the day.

Sanchez, Nutritional Neuroscience 2009

Infant Feeding Methods and Maternal Sleep and Daytime Functioning

- **OBJECTIVE:** Our purpose was to explore maternal actigraphically measured sleep, subjective sleep reports, and daytime functioning on the basis of current feeding method status during postpartum weeks 2 through 12.
- **METHODS:** Objectively measured total sleep time, sleep efficiency, and fragmentation, subjectively reported numbers of nocturnal awakenings, total nocturnal wake time, and sleep quality, and sleepiness/fatigue measured by using the fatigue visual analog scale, the Stanford Sleepiness Scale, or the Epworth Sleepiness Scale were assessed.
- **RESULTS:** We did not find differences between women who were exclusively breastfeeding, exclusively formula feeding, or using a combination of the 2 methods, with respect to the assessed parameters.
- **CONCLUSIONS:** Efforts to encourage women to breastfeed should include information about sleep. Specifically, women should be told that choosing to formula feed does not equate with improved sleep. The risks of not breastfeeding should be weighed against the cumulative lack of evidence indicating any benefit of formula feeding on maternal sleep.

Montgomery-Downs, Pediatrics. 2010

News: “Mothers who use a breast pump to express milk in the day and then bottle feed it to a baby at night may let themselves in for a sleepless night”

- Sánchez says:
  - 5’AMP in breast milk might be fueling the release of the sleep-promoting neurotransmitter GABA
  - 5’GMP is involved in the secretion of melatonin, which helps regulate the natural body clock
  - 5’UMP is known to promote the amount of both REM and non-REM sleep.
  - “It is a mistake for the mother to express the milk at a certain time and then store it and feed it to the baby at a different time,” says Sánchez.

Sanchez, Nutritional Neuroscience 2009

Exclusively breastfeeding mothers get more sleep

6,410 mothers of infants 0-12 months of age.
Women who were breastfeeding reported significantly:

- more hours of sleep
- better physical health
- more energy
- lower rates of depression

...than mixed- or formula-feeding mothers.

No significant differences on any measure between mixed- and formula-feeding mothers, suggesting that breastfeeding is a qualitatively different experience than even mixed feeding.

Kendall-Tackett, Cong, & Hale, 2011

Approach to the patient

- Most nurses are not therapists
- We are in the trenches with the wounded victims...while we are tending to their wounds, the best thing we can do is just listen.
- Don’t be afraid; ask tough questions
- Stay calm
- Refer to providers, support groups, therapists

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Refer to postpartum therapists that specialize in mental health issues related to breastfeeding

http://perinataisupport.org