Supporting and Promoting Breastfeeding, Chestfeeding and Lactation in Health Care Settings
Four-Part Webinar Series

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Disclosure Statements

The planners and presenters do not have any financial arrangements or affiliations with any commercial entities whose products, research or services may be discussed in this activity.

No commercial funding has been accepted for this activity.

Four-Part Webinar Series

• Recommendations on how to examine, counsel, and teach chest/breastfeeding to pregnant or parenting people
• Targeted to clinicians and other health care providers
• Providers are encouraged to complete all four modules
  — One webinar is targeted to prenatal care providers
  — Two webinars are targeted to providers in hospitals and birthing settings
  — One webinar is targeted to pediatric and postpartum care providers
• All four webinars support the Ten Steps to Successful Breastfeeding

Supporting and Promoting Breastfeeding, Chestfeeding and Lactation in Prenatal Care Settings
Objectives and Desired Outcome

By the end of the webinar, learners will be able to:

• Summarize national expert recommendations for breastfeeding/chestfeeding.
• Explain the benefits of human milk feeding on infant and maternal health.
• Describe culturally appropriate, inclusive breastfeeding/chestfeeding education by trimester.
• Identify strategies to promote, support, and protect breastfeeding/chestfeeding (including Breastfeeding-Friendly Practices).

Outcome: As a result of attending this training, learners will be more knowledgeable and competent in educating/counseling pregnant people about human milk feeding in an inclusive, culturally responsive manner, and in implementing policies and practices that promote, support, and protect chest/breastfeeding in prenatal settings.

Featured Speaker

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Supporting and Promoting Breastfeeding, Chestfeeding and Lactation in Prenatal Care Settings
Infants Fed Human Milk in the Hospital
NYS (2018) vs. Healthy People 2020 Targets

- Healthy People 2020 Targets:
  - Target: 81.9%
  - Target: 70.0%
  - Target: 14.3%

Infants Fed Human Milk: NYS vs. Healthy People 2020/2030 Targets

- 2020 Targets:
  - Exclusive BF 3m: 59.8%
  - Breastfeeding 6m: 45.2%
  - Breastfed Infants: 40.6%

- 2030 Targets:
  - Exclusive BF 3m: 70.0%
  - Breastfeeding 6m: 60.6%
  - Breastfed Infants: 54.1%

Disparities in Infants Fed Exclusively Human Milk in Hospital, NYS 2016-2017

- Maternal Race/Ethnicity:
  - White, non-Hispanic: 56.9%
  - Black, non-Hispanic: 50.1%
  - American Indian, non-Hispanic: 55.0%
  - Asian/Pacific Islander, non-Hispanic: 58.1%
  - Other, non-Hispanic: 47.7%
  - Hispanic: 57.4%

- Maternal Primary Education:
  - Less than high school: 58.6%
  - High school graduate: 42.4%
  - More than high school: 55.0%

- Maternal Health Insurance:
  - Medicaid: 57.9%
  - Other: 57.9%
Trends in Exclusive Breastfeeding through 6 months by Race/Ethnicity (2009-2015)

- Exclusive breastfeeding increased for all
- Increase largest for White infants; least for Black infants, and less for Hispanic infants
- Disparity in exclusive breastfeeding increased between Black infants and White infants

Breastfeeding/Chestfeeding Recommendations

American College of Obstetricians and Gynecologists

- Chest/breastfeed for 1 year or longer; exclusively for 6 months, as mutually desired by the parent and their infant
- May chest/breastfeed while pregnant and after subsequent pregnancy
- No rules on weaning
- AAP, AAFP support these recommendations

Breastfeeding/Chestfeeding Recommendations

American College of Obstetricians and Gynecologists

- Advice and encouragement from OB-GYNs and other prenatal care providers is critical in assisting patients to make informed infant feeding decisions. It should be free from coercion, pressure or undue influence.
- OB-GYNs and other prenatal care providers should support patient's informed decision about whether to initiate or continue breastfeeding/chestfeeding, recognizing that the patient is uniquely qualified to decide whether and how to feed their infant: exclusively human milk, mixed feeding, or formula
Promoting Breastfeeding/Chestfeeding

What Providers Need to Know

- Benefits of feeding human milk
- Stages of breast development that lead to milk production
- How to conduct physical and take history as it relates to breastfeeding/chestfeeding
- How to create a Breastfeeding/Chestfeeding Friendly Practice

Benefits of Breastfeeding or Feeding Human Milk

- Human milk provides the ideal nutrition for infants
- Human milk contains antibodies
- Infants fed human milk have a lower risk for asthma/allergies, Sudden Infant Death Syndrome (SIDS) and Necrotizing Enterocolitis (NEC)
- Infants who are fed human milk exclusively for the first six months have fewer ear infections, lower respiratory illnesses, and diarrhea
Benefits of Breastfeeding or Feeding Human Milk (cont’d)

• Breastfeeding promotes physical closeness, skin-to-skin touching, and eye contact, which support maternal-infant bonding
• Breastfed infants are more likely to gain the optimal amount of weight as they grow, and are less likely to become overweight
• Meta-analyses have found an association between breastfeeding and higher IQ scores (average of 3-4 points)

Breast Development During Pregnancy

• Milk is made during first 10-12 weeks of pregnancy
• The breasts change as pregnancy progresses:
  - Breasts become larger
  - Areola will become larger and darker
  - Nipples may start to leak colostrum during the pregnancy
  - Colostrum is thick and can be clear, yellow or brownish

ANATOMY OF THE HUMAN BREAST

- Glandular tissue made up of clusters of alveoli and small ducts
- Milk duct
- Areola
- Nipple with several duct openings
- Fat layer under the skin
- Fat amongst the glandular tissue
Lactogenesis – Stage I

- Pregnancy accelerates organogenesis
- Intense growth of glandular tissue, which is made up of clusters of ductal alveolar systems
- Progesterone causes a rapid increase in number of alveoli
- Alveoli begin to synthesize milk fat and protein creating colostrum, which is secreted into the ductal system

Lactogenesis – Stage II

- Occurs during lactation
- Delivery of placenta causes rapid drop in progesterone causing the alveolar cells to secrete their product: first colostrum, then milk
- Milk is released into the alveolar lumen and then into the ductules and ducts

Lactogenesis – Stage III

- Galactopoiesis is the process of milk supply maintenance
- Occurs in response to milk removal from the breast over the course of breastfeeding/chestfeeding relationship
- Rarely, breast abnormalities may affect milk production
Hormones Involved in Milk Production

- Prolactin - responsible for milk production
- Oxytocin - responsible for milk release

Prolactin

- Progesterone thought to inhibit prolactin
- Sudden drop in progesterone after delivery of placenta triggers an initial release of prolactin
- Nipple suckling stimulates prolactin to be secreted by the anterior pituitary gland into the bloodstream
- Serum prolactin stimulates alveolar cells to make more milk

Oxytocin

- Stimulates the “let-down” reflex
- Released by the posterior pituitary in response to various stimuli:
  - Suckling of the infant
  - Massaging of the breast
  - Seeing, touching, smelling, hearing the infant
- Response to oxytocin is transient and intermittent
### Things to discuss with your patients

- What are preferred pronouns & words?
- **Biology** at birth, hormones & surgeries
- **Goals** and possibilities
- **What types of discrimination & bias** might your patient have experienced previously?
- **What other issues might** be facing your patient (i.e., racism, history of trauma or abuse, lack of support, etc.)
- What strengths, resilience factors, or support systems does your patient have?

### Importance of Patient History

- A good history identifies risk factors for problems with breastfeeding/chestfeeding and reasons for early intervention
- Providers should specifically ask about any breast surgeries
- Ask about prior experience breastfeeding/chestfeeding, the duration, and any previous difficulties
- Refer patients with certain medical/surgical issues to a lactation consultant
- Consider asking about social determinants of health (poverty, food insecurity, unsafe neighborhood or housing, lack of transportation, violence, etc.)

### Risk Factors for Hypolactation

- **Medical conditions**
  - Polycystic ovarian syndrome
  - Diabetes Mellitus, Type I and II
  - Hypo- and Hyperthyroidism
- **Surgical history**
  - Breast augmentation
  - Breast reduction

Refer early to a lactation consultant!
Contradictions for Breastfeeding/Chestfeeding

Breathing parent should NOT Chest/Breastfeed or feed expressed milk
• Infant with Galactosemia
• Lactating parent with HIV or HTLV infection
• Lactating parent using illicit street drugs, such as PCP or cocaine
• Lactating parent has suspected or confirmed Ebola virus disease

Temporarily restrict breastfeeding/chestfeeding & feeding expressed milk
• Lactating parent infected with untreated brucellosis
• Lactating parent taking certain medications
• Lactating parent undergoing diagnostic imaging
• Lactating parent with active herpes simplex virus (lesions on breast)

Temporary Restrictions for Breastfeeding/Chestfeeding

Temporary restriction for breastfeeding/chestfeeding, but it is safe to feed expressed human milk
• Lactating parent with untreated, active Tuberculosis
  • After treatment for 2 weeks, and no longer contagious, may chest/breastfeed
• Birthing parent with active Varicella Zoster
  • When infection developed within 5 days prior to delivery until 2 days following delivery

Patient History - Medications

• Most medications are safe during breastfeeding/chestfeeding
• Assess the benefit vs. risk of medication
• Choose medications safe for lactation
• Research the medication prior to dispensing/consult lactation pharmacology resources for up-to-date information because inappropriate advice often can lead patients to discontinue breastfeeding/chestfeeding unnecessarily
  - LactMed - National Library of Medicine Drugs and Lactation Database
  - Hale's Medications & Mothers' Milk
  - Breastfeeding Handbook for Physicians (AAP & ACOG)
  - University of Rochester Medical Center (URMC) Human Lactation Center
Medications that Require Cessation of Breastfeeding/Chestfeeding

- Toxicity - Require Cessation
  - Chemotherapy
  - Antineoplastic, thyrotoxic, or immunosuppressive agents
  - Radioactive isotopes (used in nuclear medicine)
  - Some cardiovascular medications (Amiodarone, Acebutolol)
- Decrease human milk – Reconsider Use
  - Bromocriptine
  - Diuretics

Rule of thumb: Check ALL medications for safety during breastfeeding/chestfeeding, just as you would during pregnancy.

Vaccinations while Breastfeeding/Chestfeeding

- Most vaccinations are safe during breastfeeding/chestfeeding
- ACOG recommends pregnant and lactating individuals receive the COVID-19 vaccine series
- Counseling on the COVID-19 vaccine recommendation should include available data on vaccine efficacy and vaccine safety during pregnancy and lactation
- ACOG also recommends that pregnant people receive the inactivated influenza vaccine, and a Tdap vaccine between 27-36 weeks of each pregnancy

Patient History - Surgical

May cause breastfeeding/chestfeeding issues
- Breast surgery - augmentations or reductions
- Inverted nipples (expression may be obtained by hand or electrical)
- Breast biopsies involving the areola (compensate using contralateral breast)
- Hypoplastic or tubular breasts (RARE - refer to specialist)
- Transgender patients – surgical considerations
Patient History - Breast Cancer

- Individuals who undergo lumpectomy and radiation may opt to breastfeed/chestfeed
- Breastfeeding/chestfeeding is an option for individuals who have undergone double mastectomy and reconstruction by feeding with a supplemental feeding tube device at the breast
- Volume of milk and sodium and fat concentration may be affected, infant may prefer nonirradiated breast
- Counseling about nipple soreness and complications is prudent
- Support and resources, including lactation support extremely important for these individuals

Patient History - Social

- Illegal or illicit drug use
- Alcoholism or binge drinking
- Patients on stable doses of methadone or buprenorphine, who are not using illicit drugs and who do not have other contraindications should be encouraged to chest/breastfeed
- There are insufficient data to evaluate the effects of cannabis use on infants during lactation. In the absence of data, cannabis use is discouraged. Patients who continue to use cannabis, however, should be counseled to chest/breastfeed, as the known benefits of human milk outweigh the potential risks of cannabis.

Physical Exam

- Examine the breast
- Look for signs of surgery, especially in the areolar region
  - Reduction mammoplasty- depends on degree of interruption of the ductile system
    - Once delivered, should monitor infant growth
  - Augmentation mammoplasty- frequent emptying during the time of lactogenesis
- Nipple piercing – remove ring (choking hazard for baby)
First Trimester Teaching

- Key Messages for Patients and their Partners

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First Prenatal Visit

- Assess baseline knowledge about breastfeeding/chestfeeding
- Discuss the stages of breast development that lead to milk production
- Engage the patient’s partner and other family members in discussions about infant feeding and address any questions and concerns
- Provide advice and encouragement to assist patients in making an informed infant feeding decision free from coercion, pressure, or undue influence

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First Prenatal Visit (Con’t)

- Provide patients and families noncommercial, accurate and unbiased information so they can make informed decisions about their health care
- Provide, connect or refer, and encourage prenatal chest/ breastfeeding education.
- Refer pregnant persons (who are potentially income-eligible) to WIC early in pregnancy. WIC has credentialed nutrition and chest/ breastfeeding staff who conduct assessments, provide education/counseling, and collaborate with health care providers to optimize health outcomes.
Set Expectation of Breastfeeding/Chestfeeding

- Ask patient about breastfeeding/chestfeeding (family history, thoughts, concerns)
- Identify support and barriers
- Discuss insurance coverage for breastfeeding support, supplies (including breast pumps) and counseling (note, includes Medicaid insurance)
- Note WIC provides enhanced food package, lactation counseling and breast pumps

Exclusive Breastfeeding/Chestfeeding

- Exclusive breastfeeding/chestfeeding means infant is not given anything to eat or drink other than human milk for first 6 months
- Supplementary foods include: formula, water, glucose water, dextrose water, juice, baby foods
- Exceptions: vitamins, minerals, medications that have been prescribed for medical reasons

Importance of Exclusive Breastfeeding/Chestfeeding

- Formula interferes with immune system priming
- Decreased feeding at breast can lead to lower milk production
- No “nipple confusion”
- Breastfeeding/chestfeeding success is more likely if parent exclusively feeds human milk for at least the first 4 weeks
Health Benefits for Women Who Breastfeed

- Decreased postpartum bleeding
- More rapid uterine involution
- Decreased menstrual blood loss
- Increased child spacing
- Reduced risk of breast and ovarian cancer
- May facilitate postpartum weight loss

Health Benefits for Infants Fed Human Milk

- Human milk protects infants
- Human milk is the most complete food for babies - contains all the nutrients a baby will need for first six months
- Breastfeeding/chestfeeding promotes parent-infant bonding

Second Trimester Teaching

- Steps a breastfeeding/chestfeeding individual can take during labor to increase success in breastfeeding/chestfeeding
- Best practices post-delivery to facilitate breastfeeding/chestfeeding
Effects of Labor and Delivery on Breastfeeding/Chestfeeding

• Spontaneous, un‐medicated vaginal birth with immediate, uninterrupted skin-to-skin contact leads to highest likelihood of baby-led breastfeeding/chestfeeding initiation
• Longer labors, instrumented deliveries, cesarean section and separation of birthing person and infant after birth may lead to higher risk of difficulty with breastfeeding/chestfeeding initiation
• Patients who undergo cesarean delivery may need extra support to establish and sustain breastfeeding/chestfeeding
• Skin-to-skin contact is feasible in the operating room and is associated with reduced need for formula supplementation

Pain Management During Labor

• Continuous support in labor
  - Reduces the need for pharmacologic pain management
  - Decreases the rates of instrumented delivery and cesarean section
• Non-pharmacologic methods, such as hypnosis and acupuncture, have been found to be effective in reducing labor pain
• Some studies suggest that epidural anesthesia may negatively impact breastfeeding/chestfeeding success

Pain Management and Breastfeeding/Chestfeeding

• Both pain and opioid analgesia can have a negative effect on breastfeeding/chestfeeding outcomes
• Encourage breastfeeding/chestfeeding individuals to control pain with lowest, effective medication dose; opioid analgesia may affect baby’s alertness and suckling vigor
• However, when patient’s pain is adequately treated, breastfeeding/chestfeeding outcomes improve; pain should be adequately addressed (especially after cesarean birth or severe perineal trauma)
Best Practices Post-Delivery

- Birthing person and baby spend first hour in skin-to-skin contact
- Birthing person chest/breastfeeds within one hour of delivery in delivery room or after a C-section in Operating Room
- Lactation support (appropriate to need of patient and infant) is available immediately after birth and throughout hospital stay
- Birthing person chest/breastfeeds on demand (every time baby is hungry) – increases milk supply
- Baby rooming-in with parent helps with learning baby’s hunger cues
- No formula in the hospital and for as long as possible afterwards
- No pacifier for first month – pacifiers mask hunger cues

Baby’s Hunger Cues

- Most infants nurse 8-10 times every 24 hours
- Infants should not sleep more than 3 hours, without waking up to chest/breastfeed, including at night
- Rapid eye movement is earliest hunger cue
- Baby will open mouth and move tongue or start to suck on fingers/hands
- Crying is the last sign of hunger and means baby is very hungry
- Easier for baby to take breast before becoming very hungry

Third Trimester Teaching

- Positioning and latching
- Insurance coverage for breastfeeding
- Plans for contraception
Birth Plan

- Encourage pregnant person to develop a birth plan to be included in prenatal chart and to bring to the hospital
- Birth plan should include plan for breastfeeding/chestfeeding
- Refer people with low health literacy, language barriers, or who may need extra support to community resources for assistance (e.g., Community Health Worker; Home Visiting program)
- Discuss available breastfeeding/chestfeeding resources in hospital: Baby Friendly Hospital, availability of IBCLC providers

Third Party Coverage for Breastfeeding/Chestfeeding Support

- Most insurance plans, including Medicaid, cover prenatal and postpartum breastfeeding education, lactation counseling, and breast pumps
- Encourage patient to check insurance plan
- Refer to WIC, if not already participating. Some WIC staff or peer counselors visit patient in hospital prior to discharge.

Positioning and Latching

- If breastfeeding/chestfeeding hurts, baby is not latched on correctly
- Lactating person should hold infant belly-to-belly close to the body.
- Start with nose to nipple. Baby’s mouth should be wide open while feeding
- Lactating person should listen for swallowing (no clicking or smacking)
- A good latch helps the baby get lots of milk and prevents sore nipples/sore breasts
Postpartum Teaching

Assess Breastfeeding/Chestfeeding
- Work with patient to ensure successful breastfeeding/chestfeeding
- Identify barriers
- Office staff should be prepared to triage common chest/breastfeeding concerns and to refer to community resources
- Discuss breastfeeding/chestfeeding resources in community: Lactation specialists; IBCLC; Breastfeeding Medicine physicians; La Leche League International; Baby Cafes; WIC program; Home Visiting program

Common Issue – Plugged Ducts
- Localized areas of milk stasis with distention of ducts (sometimes nipple blebs can be seen)
- Palpable tender lump without fever, erythema or myalgia
**Plugged Duct - Management**

Instruct patient to:
- Chest/breastfeed frequently on affected side
- Offer affected breast first
- Apply moist, warm cloth to area before breastfeeding/chestfeeding
- Massage the lump toward the nipple gently before and during breastfeeding/chestfeeding, which may help
- Nurse in different positions to ensure drainage of affected area

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**Contraception**

- Patients should be encouraged to think about future plans for childbearing and contraception during prenatal care
- Patients should be given information and services to help them meet their goals
- Discuss optimal child spacing and its effects on breastfeeding/chestfeeding and person's nutritional status

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**Lactational Amenorrhea**

Breastfeeding/chestfeeding may work well during first six months (conferring up to 98% protection from pregnancy) if:
- Exclusively breastfeeding/chestfeeding (or only supplementing to a minor extent)
- Intervals between feedings generally do not exceed 4 hours during the day/6 hours at night
- Supplemental feedings do not exceed 5-10% of the total
- Menses has not returned

<table>
<thead>
<tr>
<th>Return to ovulation postpartum</th>
<th>Breastfeeding mothers</th>
<th>Non-breastfeeding mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 months</td>
<td>45 days (25-72 days)</td>
<td></td>
</tr>
</tbody>
</table>
Algorithm for Lactational Amenorrhea: When to Add Additional Contraception

Ask the patient three questions:
1. Has your menses returned?
2. Are you supplementing regularly or allowing long periods without breastfeeding/chestfeeding, either during day or night?
3. Is your baby more than 6 months old?

If the answer to any of the above is “yes,” time to add additional contraception!

Contraception Choices: Non-hormonal Methods do not Affect Milk Production

<table>
<thead>
<tr>
<th>Non-hormonal Method</th>
<th>Women experiencing an unintended pregnancy within the first year*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Typical Use</td>
</tr>
<tr>
<td>Condom (male)</td>
<td>15%</td>
</tr>
<tr>
<td>Condom (female)</td>
<td>21%</td>
</tr>
<tr>
<td>Diaphragm</td>
<td>16%</td>
</tr>
<tr>
<td>Contraceptive sponge</td>
<td>32%</td>
</tr>
<tr>
<td>Oestrogen (intrauterine)</td>
<td>16%</td>
</tr>
<tr>
<td>Spermicide</td>
<td>29%</td>
</tr>
<tr>
<td>Intrauterine device</td>
<td>0.8%</td>
</tr>
<tr>
<td>Natural family planning</td>
<td>25%</td>
</tr>
</tbody>
</table>

Centres for Disease Control and Prevention. [U.S. Medical Eligibility Criteria for Contraceptive Use]. MMWR 2010;59(No. RR‐4):[1‐88].

Contraception Choices: Hormonal

- Limited data exists about the impact on breastfeeding/chestfeeding
- Recent Cochrane review of effects on breastfeeding concluded that evidence is insufficient to reach a definitive conclusion
- However, some studies have suggested that estrogen-containing contraceptives may decrease the amount of human milk produced
Hormonal Contraception

• Progestin-only oral contraceptives may be prescribed at discharge from the hospital -- to be started 2 to 3 weeks postpartum
• Depot medroxyprogesterone acetate may be started 6 weeks postpartum
• Hormonal implants may be started 6 weeks postpartum
• Levonorgestrel IUD may be inserted 6 weeks postpartum
• Combined estrogen-progestin contraceptives should not be started before 6 weeks postpartum and only when lactation is well established, and infant’s nutritional status is appropriate

NYS Breastfeeding Friendly Practice

• Designate breastfeeding/chestfeeding champion in office
• Train all staff on an ongoing basis in skills necessary to implement and maintain a Breastfeeding/Chestfeeding Friendly office policy
• Determine key breastfeeding/chestfeeding messages and ensure consistent use
• Ensure timely follow-up, counseling and support
• Limit/ban formula and industry products office
• Develop community-clinical linkages

Thank You!
Thank You!

- University at Albany, School of Public Health, Center for Public Health Continuing Education
- New York State Department of Health, Bureau of Community Chronic Disease Prevention and Division of Chronic Disease Prevention

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