

EVIDENCE-STATEMENT:

HEALTHY PREGNANCY (Screening, Testing, Counseling, Immunization, and Preventive Medication)

Breastfeeding (Counseling)

Clinical Preventive Service Recommendations

U.S. Preventive Services Task Force Recommendation

The U.S. Preventive Services Task Force (USPSTF) recommends that clinicians provide structured breastfeeding education and behavioral counseling to all pregnant and postpartum women to promote the initiation and continuation of breastfeeding.¹

Evidence Rating: B (Recommended/ At Least Fair Evidence)

The USPSTF found fair evidence that programs which combine breastfeeding education with behaviorally-oriented counseling increase the rates of the initiation and continuation of breastfeeding for up to 3 months. The USPSTF notes that effective programs involve at least one in-person session; are usually 30 to 90 minutes in duration; follow structured protocols; and include practical behavioral skills training, problem-solving, and didactic instruction.¹

The USPSTF also found fair evidence to suggest that continued support via in-person visits or telephone contact with a clinician or counselor increases the proportion of women who continue breastfeeding their infants for 6 months.¹

CDC Recommendation

The CDC *Guide to Breastfeeding Interventions* recognizes the critical role returning to work plays in women's infant feeding decisions, and identifies a strong need to establish lactation support in the workplace.²

Evidence Rating:

Not Specified

Other Evidence Based Recommendations American Academy of Family Physicians (AAFP)

The American Academy of Family Physicians (AAFP) recommends structured breastfeeding education and behavioral counseling programs to promote breastfeeding.³

Evidence Rating: R (Recommends)

Although evidence exists which demonstrates the net benefit of counseling to promote breastfeeding, either the benefit is only moderate in magnitude or the evidence supporting a substantial benefit is only fair. The intervention is perceived to be cost-effective and acceptable to most patients.³

Information Sources

The recommendations and supporting information contained in this document came from several sources, including the:

- American Academy of Family Physicians (AAFP)
- Centers for Disease Control and Prevention (CDC)
- *Healthy People 2010*, U.S. Department of Health and Human Services
- Peer-reviewed research
- U.S. Preventive Services Task Force (USPSTF)

The background and supporting information contained in this document is a compilation of research findings. All information presented in this document

should be attributed to its referenced source and should not be considered a reflection of other organizations cited in the text.

Condition/Disease Specific Information

Epidemiology of Condition/Disease

Breastfeeding provides protective immune globulins from the mother to the infant, completing the development of the infant's immune system after birth and thereby reducing the risk that the infant will acquire some serious infections. This immunologic protection is impossible to replicate with infant formula. Infants who are breastfed are thus better prepared to fight off infections and allergens than their non-breastfed counterparts. Additionally, human breast milk is universally recognized to be the optimal food for infants and is nutritionally superior to formula. Evidence suggests that breastfed infants are less likely to develop obesity, and type 1 and type 2 diabetes than bottle-fed infants.² Further, children who were breastfed have lower rates of otitis media (ear infections), respiratory infections, gastroenteritis, and eczema (a skin disorder).²

Despite the benefits of breastfeeding for both women and infants, breastfeeding rates in the United States remain suboptimal, especially among certain subpopulations. Data from 2005 show that 72.9% of all new mothers initiated breastfeeding and 39.1% continued to breastfeed for 6 months.⁴ However, only 63.5% of low income mothers and 55.4% of African-American mothers initiated breastfeeding. Further, only 29.7% of low income mothers and 24.8% of African-American mothers continued to breastfeed their infants for the recommend 6-month period.⁴

The *Healthy People 2010* goals for breastfeeding aim to increase breastfeeding rates so that 75% of all new mothers initiate breastfeeding, 50% continue breastfeeding for at least 6 months postpartum, and 25% continue to breastfeed at least 1 year postpartum.⁵

Breastfeeding rates should be of paramount importance to employers as working outside the home negatively affects initiation and duration of breastfeeding.⁶ Furthermore, one-third of working mothers return to work within 3 months of the birth of their child, and two-thirds return within 6 months, the exact time period when breastfeeding is most critical.⁶

Condition/Disease Risk Factors

The mothers at highest risk for not breastfeeding are first-time mothers, those who have less formal education, those who are non-white, and those who are ill postpartum.⁷

Value of Prevention

Economic Burden of Condition/Disease

Healthcare costs of treating respiratory tract infections, ear infections, and gastrointestinal illnesses represent the majority of healthcare expenses for children less than one year of age.⁸ Because all of these illnesses are significantly more common among formula-fed infants than breastfed infants, support of breastfeeding initiation and continuation saves healthcare dollars.⁸ Indirect costs include time and income lost from work to take care of a sick child.

<p>Workplace Burden of Condition/Disease</p>	<p>Children who are not breastfed contribute to huge additional healthcare expenditures for the employers of their parents. Their parents are also responsible for significant productivity losses in the workplace associated with absenteeism and presenteeism. A study that compared infant feeding among employed mothers found that 75% of all 1-day maternal absences were among formula-feeding mothers.⁹ The study also found that infants who were formula fed were much more likely to fall ill. In fact, only 14% of infants with no illnesses were formula-fed (comparatively 86% of infants with no illnesses were breastfed).⁹</p>
<p>Economic Benefit of Preventive Intervention</p>	<p>Breastfeeding offers important economic benefits to families, employers, and society at large. Breastfeeding allows the family to save the money that otherwise would be spent on infant formula, other human milk substitutes, and feeding equipment.</p> <p>Further, a 2001 U.S. Department of Agriculture (USDA) study estimated that at least \$3.6 billion (in year 1998 dollars) would be saved if breastfeeding rates were increased from the current rates to those recommended by the U.S. Surgeon General (75% in-hospital and 50% at 6 months). This estimate includes \$3.1 billion in savings from prevented premature deaths, \$500 million in savings from reduced healthcare costs (e.g., hospital visits, etc), and savings from averted indirect costs such as forgone earnings of parents.⁸</p>
<p>Estimated Cost of Preventive Intervention</p>	<p>In 2004, the private-sector cost of counseling to promote breastfeeding initiation and continuation averaged \$23 per session; approximately 95% of all paid claims fell within the range of \$0 to \$81 per session.¹⁰</p>
<p>Estimated Cost of Treatment</p>	<p>Not Applicable</p>
<p>Cost-Effectiveness and/or Cost-Benefit Analysis of Preventive Intervention</p>	<p>A study based on 1993-1994 data from the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) in Colorado found that compared with formula-feeding, breastfeeding each infant enrolled in WIC saved \$478 in WIC costs and Medicaid expenditures during the first 6 months of the infant's life, or \$161 after consideration of the formula manufacturers' rebate.¹¹ The cost saving was realized by the averted WIC costs for formula and foods for infants and mothers as well as reduced administrative expenses and lower Medicaid health care costs including costs for pharmacy reimbursement for the breastfed infants.¹¹</p>
<p>Preventive Intervention Information</p>	
<p>Preventive Intervention: Purpose of Counseling</p>	<p>The purpose of counseling is to educate women on the benefits of breastfeeding and to provide support and skills-training for women who choose to breastfeed, thereby increasing the number of women who initiate and maintain breastfeeding for the minimum recommended period of 12 months.</p>
<p>Benefits and Risks of Intervention</p>	<p>Breastfeeding has important short- and long-term health outcomes for children. Research shows that children who were breastfed are at significantly lower risk for childhood obesity as well as type 1 and type 2 diabetes than their non-breastfed</p>

peers. Breastfed infants and children also have lower rates of otitis media (ear infections), respiratory infections, gastroenteritis, and eczema (a skin disorder).¹²

Breastfeeding also has important short- and long-term health benefits for the mother. A woman's risk of breast cancer is decreased 4.3% for every 12-month increment of breastfeeding over her lifetime.¹² Her risk of ovarian and endometrial cancer is decreased by breastfeeding as well. Breastfeeding improves uterine tone, helps to stop post-birth bleeding, assists postpartum weight loss, and temporarily suppresses ovulation to aid in child-spacing.²

Educational programs have been shown to increase the proportion of women who initiate breastfeeding immediately after birth by 23% and the number of women who continue to breastfeed for 1 to 3 months by 39%. The efficacy of education programs is enhanced by ongoing support for breastfeeding initiation and continuation.¹³

There are no known risks of counseling to promote breastfeeding. In the United States, only women with the following conditions should be advised to avoid breastfeeding: women who are HIV positive; are taking antiretroviral medications; have untreated, active tuberculosis; are infected with human T-cell lymphotropic virus type I or type II; are using illicit drugs; are taking prescribed cancer chemotherapy agents that interfere with DNA replication; and whose infants who are diagnosed with galactosemia. Women undergoing radiation therapies need to temporarily interrupt breastfeeding but do not need to discontinue breastfeeding permanently.¹⁴

Initiation, Cessation, and Interval of Counseling

Counseling to promote breastfeeding should be offered to all women of childbearing age. It should begin during prenatal care and continue throughout the intrapartum hospital stay and into the postpartum period. Counseling should be given, according to need, throughout the course of lactation.

Intervention Process Counseling

Counseling should include breastfeeding initiation advice as well as skills and referrals to support breastfeeding continuation. The most effective breastfeeding education and counseling interventions last approximately 30 to 90 minutes and feature directive health education combined with behaviorally-oriented skills training and problem-solving.¹

Effective breastfeeding education and behavioral counseling programs¹:

- Begin during the prenatal period.
- Use face-to-face individual or group sessions.
- Are led by specially trained nurses, midwives, or lactation specialists.
- Sessions last 30 to 90 minutes.
- Include education on the benefits of breastfeeding for mother and infant, basic physiology, technical training on positioning and latch-on techniques, skills on how to overcome common barriers, skills to garner social support, how to use basic lactation support equipment such as breast pumps, etc.

Treatment Information

Not Applicable

Strength of Evidence for the Clinical Preventive Service
The level of evidence supporting the recommendations contained in this section is described below.

Evidence-Based Research:

U.S. Preventive Services Task Force (USPSTF)

Strength of Evidence: B (Recommended/At Least Fair Evidence)

- The USPSTF found at least fair evidence to support the provision of structured breastfeeding education and behavioral counseling to all pregnant and postpartum women to promote the initiation and continuation of breastfeeding.¹
- The USPSTF also found at least fair evidence to suggest that continued support via in-person visits or telephone contact with a clinician or counselor increases the proportion of women who continue breastfeeding their infants for 6 months.¹

The American Academy of Family Physicians (AAFP)

Strength of Evidence: R (Recommended)

- AAFP recommends structured breastfeeding education and behavioral counseling programs to promote breastfeeding. Although evidence exists which demonstrates the net benefit of counseling to promote breastfeeding, either the benefit is only moderate in magnitude or the evidence supporting a substantial benefit is only fair. The intervention is perceived to be cost-effective and acceptable to most patients.³

Authored by:

Campbell KP, Chattopadhyay S. Breastfeeding evidence-statement: counseling. In: Campbell KP, Lanza A, Dixon R, Chattopadhyay S, Molinari N, Finch RA, editors. *A Purchaser's Guide to Clinical Preventive Services: Moving Science into Coverage*. Washington, DC: National Business Group on Health; 2006.

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Breastfeeding (Counseling)

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