

# Primary Care Interventions to Promote Breastfeeding: U.S. Preventive Services Task Force Recommendation Statement

U.S. Preventive Services Task Force\*

**Description:** Update of a 2003 U.S. Preventive Services Task Force (USPSTF) recommendation on counseling to promote breastfeeding.

**Methods:** The USPSTF evaluated the results of a systematic review, conducted by the Tufts-New England Medical Center Evidence-based Practice Center, of literature published since January 2007 on primary care–initiated, –conducted, or –referable activities to promote and support breastfeeding.

**Recommendation:** The USPSTF recommends interventions during pregnancy and after birth to promote and support breastfeeding (Grade B recommendation).

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\* For a list of Task Force members, see the **Appendix**, available at www.annals.org.

**T**he U.S. Preventive Services Task Force (USPSTF) makes recommendations about preventive care services for patients without recognized signs or symptoms of the target condition.

*It bases its recommendations on a systematic review of the evidence of the benefits and harms and an assessment of the net benefit of the service.*

*The USPSTF recognizes that clinical or policy decisions involve more considerations than this body of evidence alone. Clinicians and policymakers should understand the evidence but individualize decision making to the specific patient or situation.*

## SUMMARY OF RECOMMENDATION AND EVIDENCE

The USPSTF recommends interventions during pregnancy and after birth to promote and support breastfeeding. This is a grade B recommendation.

See the **Figure** for a summary of the recommendation and suggestions for clinical practice.

**Table 1** describes the USPSTF grades, and **Table 2** describes the USPSTF classification of levels of certainty

about net benefit. Both are also available at www.annals.org.

## RATIONALE

### Importance

There is convincing evidence that breastfeeding provides substantial health benefits for children and adequate evidence that breastfeeding provides moderate health benefits for women.

### Effectiveness of Interventions to Change Behavior

Adequate evidence indicates that interventions to promote and support breastfeeding increase the rates of initiation, duration, and exclusivity of breastfeeding.

### Harms of Interventions

No published studies focus on the potential direct harms from interventions to promote and support breastfeeding. The review did not include a search for potential harms of breastfeeding itself. The USPSTF has bounded the potential harms of interventions to promote and support breastfeeding as no greater than small.

### USPSTF Assessment

The USPSTF concludes that there is moderate certainty that interventions to promote and support breastfeeding have a moderate net benefit.

## CLINICAL CONSIDERATIONS

### Patient Population under Consideration

This recommendation applies to pregnant women, new mothers, and young children. In rare circumstances involving health issues in mothers or infants, such as HIV infection or galactosemia, breastfeeding may be contraindicated and interventions to promote breastfeeding may not be appropriate. Interventions to promote and support

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breastfeeding may also involve a woman's partner, other family members, and friends.

### Interventions

The current literature does not allow assessment of the individual aspects of multicomponent interventions or comparative effectiveness assessments of single-component interventions. The promotion and support of breastfeeding may be accomplished through interventions over the course of pregnancy; around the time of delivery; and after birth, while breastfeeding is under way. Interventions may include multiple strategies, such as formal breastfeeding education for mothers and families, direct support of mothers during breastfeeding observations, and the training of health professional staff about breastfeeding and techniques for breastfeeding support. Evidence suggests that interventions that include both prenatal and postnatal components may be the most effective at increasing breastfeeding duration. Many successful programs include peer support, prenatal breastfeeding education, or both.

## OTHER CONSIDERATIONS

### Implementation

Although the activities of individual clinicians to promote and support breastfeeding are likely to be positive, additional benefit may result from efforts that are integrated into systems of care. System-level interventions can incorporate clinician and team member training and policy development, and through senior leadership support and institutionalization, these initiatives may be more likely to be sustained over time. Although outside the scope of this recommendation and evidence review, community-based interventions to promote and support breastfeeding, such as direct peer-to-peer support, social marketing initiatives, workplace initiatives, and public policy actions, may offer additional sizeable benefits.

### Research Needs and Gaps

Additional research is needed to better understand the effects of health care-based interventions to promote and support breastfeeding in the United States. Future research should include data collection on exclusive breastfeeding rates in addition to partial breastfeeding rates. Studies will be more useful if they are designed to allow some assessment of the relative contributions of individual components of multicomponent breastfeeding support programs. Research on the costs and cost-benefits of interventions is also needed. Additional research is needed to allow the tailoring of interventions to the needs of individual women and families. Good-quality prospective studies are needed to understand the effectiveness of compliance with the World Health Organization's Baby-Friendly Hospital Initiative in the United States, the contributions of individual components, and the interactive effect of the components with particular focus on postdischarge breastfeeding support.

## DISCUSSION

### Health Effects

In 2005, 73% of new mothers initiated breastfeeding, nearly reaching the U.S. Healthy People 2010 goal of 75% (1, 2). Thirty-nine percent breastfed their children for at least 6 months and 20% did so for 12 months (1). Fourteen percent of infants were exclusively breastfed for their first 6 months, as recommended by the American Academy of Pediatrics (AAP), the American Academy of Family Physicians (AAFP), and the U.S. Surgeon General (3–5).

Not breastfeeding is associated with health risks for mothers and children. For infants, not being breastfed is associated with increased numbers of ear infections, lower respiratory tract infections, and gastrointestinal infections (6). Children who were not breastfed were more likely to have asthma, type 2 diabetes, and obesity (6). For women, not breastfeeding is associated with higher rates of both breast and ovarian cancer (6).

### Scope of Review

This recommendation is supported by a systematic evidence review conducted for the USPSTF by the Tufts-New England Medical Center Evidence-based Practice Center (7). The review updates the USPSTF's 2003 evidence report (8) and includes literature published between January 2001 and January 2007. Although the investigators included multiple study designs in their search strategies, the final report focused on randomized, controlled trials. The investigators limited studies to those with a focus on healthy term and near-term infants, their mothers, and members of the mother-child support team. As directed by the USPSTF, they used a broad conception of primary care interventions that encompassed activities initiated, conducted, or referable by primary care clinicians. Settings included primary care offices; labor, delivery, and postpartum inpatient settings; and patient homes. The review did not address community-based interventions, such as media campaigns, worksite lactation programs, and peer-to-peer support programs that do not interact with the health system.

### Effectiveness of Interventions to Change Behavior

In evaluating more than 25 randomized trials of interventions conducted in the United States and in developed countries around the world, the USPSTF concluded that adequate evidence indicates that coordinated interventions throughout pregnancy, birth, and infancy can increase breastfeeding initiation, duration, and exclusivity. A large cluster randomized study of an intervention conducted in Belarus and modeled on the Baby-Friendly Hospital Initiative found that infants in the intervention group were significantly more likely than those in the control group to be exclusively breastfed and to have lower rates of gastrointestinal infections and atopic dermatitis (9). This good-quality study provides evidence of the potential effects of multifaceted breastfeeding interventions to improve health outcomes.

### Potential Harms of Interventions

No studies identified for the USPSTF reported harms from interventions to promote and support breastfeeding. Nonetheless, there are potential harms, such as making women feel guilty. Breastfeeding interventions, like all other health care interventions designed to encourage healthy behaviors, should aim to empower individuals to make informed choices supported by the best available evidence. As with interventions to achieve a healthy weight or to quit smoking, breastfeeding interventions should be designed and implemented in ways that do not make women feel guilty when they make an informed choice not to breastfeed.

### Estimate of Magnitude of Net Benefit

The USPSTF found that the benefits of breastfeeding are substantial and that the benefits of multimodal interventions to promote and support breastfeeding are moderate. Although the evidence was inadequate to determine the potential harms of these interventions, the USPSTF estimated these potential harms to be no greater than small. The USPSTF concluded with moderate certainty that the net benefits are moderate for multifaceted interventions to promote and support breastfeeding.

### RECOMMENDATIONS OF OTHERS

The AAP, AAFP, and the American College of Obstetricians and Gynecologists all recommend that pregnant women receive breastfeeding education and counseling (3, 10, 11). The AAFP and AAP also recommend that peripartum policies and practices support breastfeeding mothers and infants and that breastfeeding families receive ongoing breastfeeding support (3, 10).

From the U.S. Preventive Services Task Force, Agency for Healthcare Research and Quality, Rockville, Maryland.

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**Potential Financial Conflicts of Interest:** None disclosed.

**Requests for Single Reprints:** Reprints are available from the USPSTF Web site ([www.preventiveservices.ahrq.gov](http://www.preventiveservices.ahrq.gov)).

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*Figure. Primary care interventions to promote breastfeeding: clinical summary of a U.S. Preventive Services Task Force recommendation.*



# Annals of Internal Medicine

## PRIMARY CARE INTERVENTIONS TO PROMOTE BREASTFEEDING: CLINICAL SUMMARY OF U.S. PREVENTIVE SERVICES TASK FORCE RECOMMENDATION

Population	Pregnant Women	New Mothers	The Mother's Partner, Other Family Members, and Friends	Infants and Young Children
Recommendation	<p align="center"><b>Promote and support breastfeeding</b></p> <p align="center"><b>Grade: B</b></p>			

Benefits of Breastfeeding	Mothers: Less likelihood of breast and ovarian cancer	Infants: Fewer ear, lower respiratory tract, or gastrointestinal infections	Young children: Less likelihood of asthma, type 2 diabetes, or obesity
Interventions to Promote Breastfeeding	<p>Interventions to promote and support breastfeeding have been found to increase the rates of initiation, duration, and exclusivity of breastfeeding. Consider multiple strategies, including:</p> <ul style="list-style-type: none"> <li>• Formal breastfeeding education for mothers and families</li> <li>• Direct support of mothers during breastfeeding</li> <li>• Training of primary care staff about breastfeeding and techniques for breastfeeding support</li> <li>• Peer support</li> </ul> <p>Interventions that include both prenatal and postnatal components may be most effective at increasing breastfeeding duration.</p> <p>In rare circumstances, for example, for mothers with HIV or infants with galactosemia, breastfeeding is not recommended. Interventions to promote breastfeeding should empower individuals to make informed choices supported by the best available evidence.</p>		
Implementation	<p>System-level interventions with senior leadership support may be more likely to be sustained over time.</p>		

For a summary of the evidence systematically reviewed in making these recommendations, the full recommendation statement, and supporting documents, please go to [www.preventiveservices.ahrq.gov](http://www.preventiveservices.ahrq.gov).

**Table 1. What the USPSTF Grades Mean and Suggestions for Practice**

Grade	Definition	Suggestions for Practice
A	The USPSTF recommends the service. There is high certainty that the net benefit is substantial.	Offer/provide this service.
B	The USPSTF recommends the service. There is high certainty that the net benefit is moderate or there is moderate certainty that the net benefit is moderate to substantial.	Offer/provide this service.
C	The USPSTF recommends against routinely providing the service. There may be considerations that support providing the service in an individual patient. There is moderate or high certainty that the net benefit is small.	Offer/provide this service only if other considerations support offering or providing the service in an individual patient.
D	The USPSTF recommends against the service. There is moderate or high certainty that the service has no net benefit or that the harms outweigh the benefits.	Discourage the use of this service.
I statement	The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of the service. Evidence is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined.	Read clinical considerations section of USPSTF Recommendation Statement. If the service is offered, patients should understand the uncertainty about the balance of benefits and harms.

USPSTF = U.S. Preventive Services Task Force.

**Table 2. U.S. Preventive Services Task Force Levels of Certainty Regarding Net Benefit**

Level of Certainty*	Description
High	The available evidence usually includes consistent results from well-designed, well-conducted studies in representative primary care populations. These studies assess the effects of the preventive service on health outcomes. This conclusion is therefore unlikely to be strongly affected by the results of future studies.
Moderate	The available evidence is sufficient to determine the effects of the preventive service on health outcomes, but confidence in the estimate is constrained by such factors as: the number, size, or quality of individual studies inconsistency of findings across individual studies limited generalizability of findings to routine primary care practice lack of coherence in the chain of evidence. As more information becomes available, the magnitude or direction of the observed effect could change, and this change may be large enough to alter the conclusion.
Low	The available evidence is insufficient to assess effects on health outcomes. Evidence is insufficient because of: the limited number or size of studies important flaws in study design or methods inconsistency of findings across individual studies gaps in the chain of evidence findings that are not generalizable to routine primary care practice a lack of information on important health outcomes. More information may allow an estimation of effects on health outcomes.

\*The U.S. Preventive Services Task Force (USPSTF) defines *certainty* as “likelihood that the USPSTF assessment of the net benefit of a preventive service is correct.” The net benefit is defined as benefit minus harm of the preventive service as implemented in a general primary care population. The USPSTF assigns a certainty level based on the nature of the overall evidence available to assess the net benefit of a preventive service.

## APPENDIX: MEMBERS OF THE U.S. PREVENTIVE SERVICES TASK FORCE

Members of the U.S. Preventive Services Task Force† are Ned Calonge, MD, MPH, *Chair* (Colorado Department of Public Health and Environment, Denver, Colorado); Diana B. Petitti, MD, MPH, *Vice Chair* (Keck School of Medicine, University of Southern California, Sierra Madre, California); Thomas G. DeWitt, MD (Children's Hospital Medical Center, Cincinnati, Ohio); Allen Dietrich, MD (Dartmouth Medical School, Lebanon, New Hampshire); Kimberly D. Gregory, MD, MPH (Cedars-Sinai Medical Center, Los Angeles, California); Russell Harris, MD, MPH (University of North Carolina School of Medicine, Chapel Hill, North Carolina); George Isham, MD, MS (HealthPartners, Minneapolis, Minnesota); Michael L. LeFevre, MD, MSPH (University of Mis-

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†This list includes members of the Task Force at the time this recommendation was finalized. For a list of current Task Force members, go to [www.ahrq.gov/clinic/uspstfab.htm](http://www.ahrq.gov/clinic/uspstfab.htm).