

## Faculty Disclosure

Maureen E. Fleming, MD, FACOG

Dr. Fleming has listed no financial interest/arrangement that would be considered a conflict of interest.

### + Updates in Newborn Feeding

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**Benefits to Mother:**

**Bonding-it hurts at first Pain is the reason most  
Moms change to bottle.**

**Weight loss-500 calorie output per day**

**Natural postpartum infertility-delayed return of menses  
from 3 months to two years if no supplementation.**

**Helps with child spacing.**

**Long term health effects:**

**Reduced risk of breast cancer. Up to 50%  
reduced risk of premenopausal breast  
cancer.**

**Less risk for female babies, too, if  
they are breastfed.**

**Lactation for 24 month associated  
with reduced risk of heart  
disease.**

**Diabetic Moms requires less  
insulin.**



Reduced risk of rheumatoid arthritis.

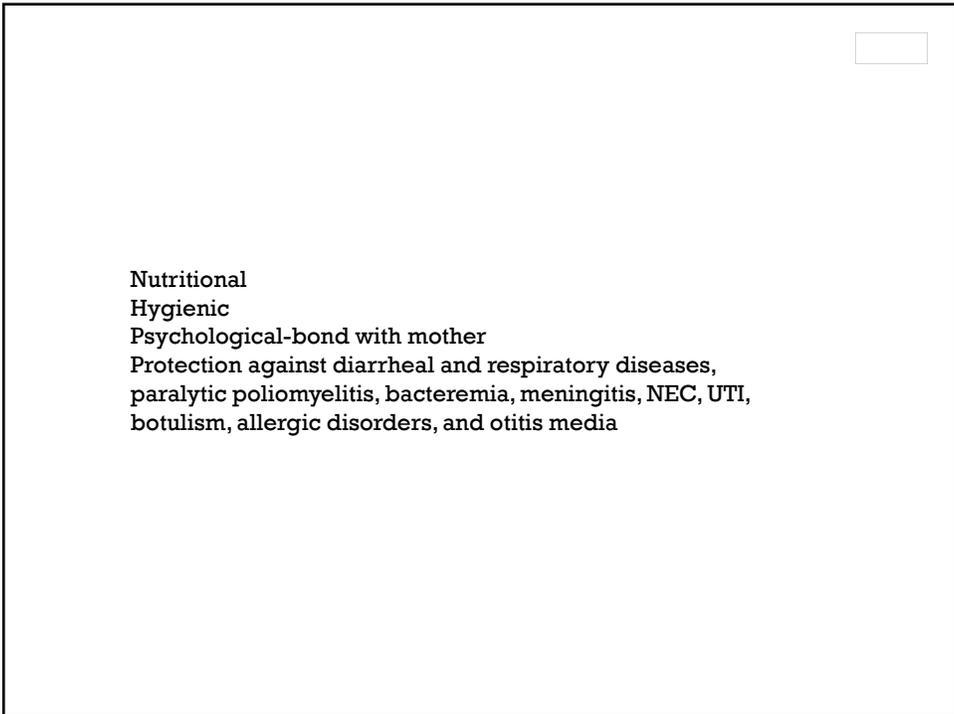
Risk is highest in the first few months after delivering. Is associated with irregular periods in the twenties. Hormonally related. Total time spent breastfeeding all children must equal 24 months to reduce risk.



It's FREE!

Breastfeeding is associated with a decreased risk of breast and ovarian cancer in the premenopausal period and of hip fractures and osteoporosis in the menopausal period.

Breastfeeding is an osteoporotic states because calcium is taken from the bones for the milk, but after weaning, bones can return to a stronger state than before breastfeeding.



Breast fed infants have a lower incidence of intussusception, inguinal hernia and hypertrophic pyloric stenosis.

Breast milk is thought to stimulate gut motility so there's less reflux.

Hormones in breast milk promote closure of the inguinal canal and testicular descent.

Human milk is thought to contain anti-inflammatory agents like epithelial growth factors, cortisol and cytoprotective prostaglandins, enzymes that degrade mediators, binders of enzymes, modulators of leucocytes, and antioxidants.

There is some evidence that human milk protects against DNA damage but the mechanism of action of protection is yet unknown.



Breastfeeding protects against neonatal allergies and helps prevent the development of future allergies as infant matures.



Breastfeeding is associated with lower incidence of obesity in childhood as well as a lower incidence of hypertension and hypercholesterolemia in adulthood. Breastfed babies gain less weight than bottle fed.

Breastfed infants are allowed to stop feeding earlier than bottle fed infants because of Mom's desire to empty the bottle. They are not force fed and learn to pay attention to their bodies "stop" alert.



There is debate about whether breastfed kids have higher IQs or whether breastfed kids have Moms with higher IQs and a genetic predisposition.



Mom's who breastfeed tend to be more educated and have higher incomes.

Being African American, young, multiparous with no previous breastfeeding experience and single is associated with less breastfeeding.



Breast fed kids have higher scores for fine motor skills at age 1 & 3, higher adaptability scores up to age two, and higher communication scores at ages 1 & 3. They can adapt to changes more easily.



Preterm delivery causes a delay in the onset of lactogenesis II. The volume of milk is further reduced when antenatal corticosteroids were administered between 28 and 32 weeks gestation and delivery occurred 3 to 9 days later. There is a positive effect of gestational age on lactose levels in milk.

Support with lactation is recommended for mothers of preterm infants.

There is evidence that the composition of carbohydrates, protein and micronutrients in breast milk changes with the age and changing nutritional need of the infant.

Composition of milk in infant formulas does not change as the baby matures.

**BREASTFEEDING REQUIRES SUPPLEMENTATION OF VITAMINS D & K IN SOME MOTHERS.** Encourage Mom to continue taking her prenatal vitamin.



During Ramadan, fasting had no effect on macronutrient composition of breast milk, but there were significant differences in the micronutrients such as zinc, magnesium and potassium.

Vegetarians need to supplement B12.

Weaning correctly is needed from the 5<sup>th</sup>-6<sup>th</sup> months of life to prevent iron deficiency. Supplement with iron fortified formula or more solid foods.

The type of delivery affects breastfeeding.

Cesarean delivered Moms need more support, especially in terms of positioning, because of the need to recover from surgery.

Maternal infection with Hepatitis B and C is not a contraindication, as opposed to HIV and galactosemia.

Few medications are contraindicated in breastfeeding. Any medication that is allowed in pregnancy is allowed when breastfeeding.

Breastfeeding can be continued until age 2 provided that complementary feeding with solid food is started after 6 months.

Drugs contraindicated in breastfeeding:

chemotherapeutics  
radioactive drugs  
certain anesthesia drugs given during surgery  
caution with psych drugs and certain pain meds

Cipro and tetracycline-not OK in pregnancy are OK in breastfeeding.

Healthy People 2020 Act, May 2011

75% of new Moms start breastfeeding and only 16% are still breastfeeding at 6 months.

Not breastfeeding costs the United States \$13 billion per year.

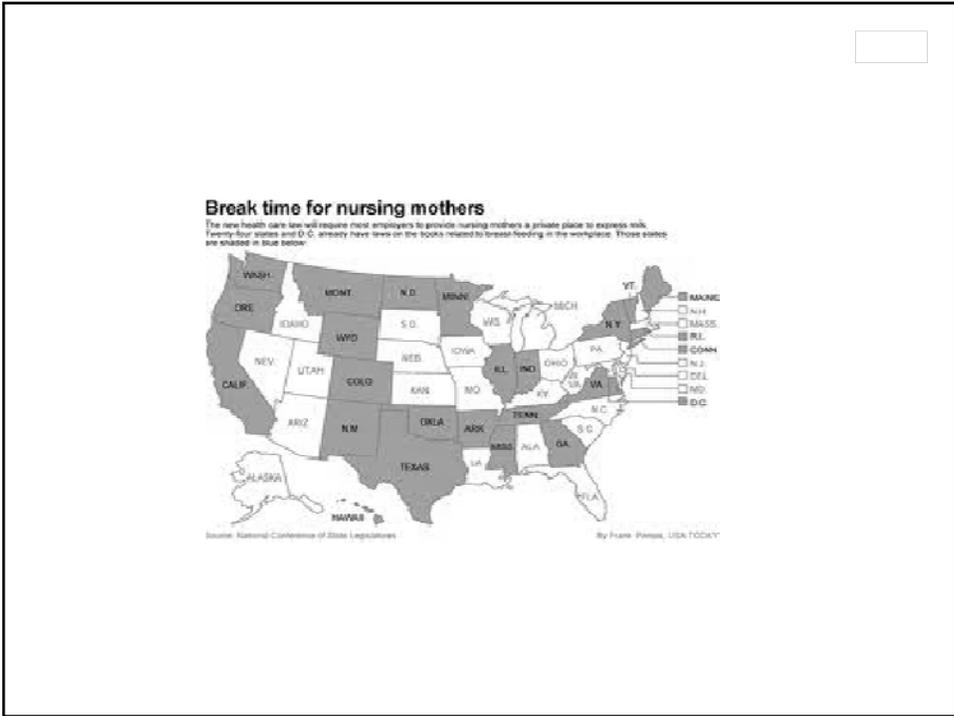
National goal is to increase breastfeeding to 81.9% by 2020.

State Laws:

45 states have laws making breastfeeding in public legal

28 more states make breastfeeding Moms exempt from public indecency laws

Nebraska and Iowa mandate NO JURY DUTY during breastfeeding period



Most states mandate noncompensated time break for Moms to pump for one year after giving birth.

Companies with over 250 employees must provide a place to pump.

What can be done to meet the objectives of the Healthy People 2020 Act?

First, and most important, is family support of breastfeeding.  
Next is physician, both obstetrician and pediatrician, support.  
Third is workplace support.



Federal Health Reform and Nursing Mothers, March 23, 2010

Requires employers to provide reasonable break time for a year after the child's birth each time an employee has need to express milk. A safe place is required and it can't be a bathroom. It must be private. Mom can use her break time, but doesn't have to be compensated for any additional time spent.





**Working mothers:**

Those who established breastfeeding were more likely to have taken antenatal leave in the 9<sup>th</sup> month.

Duration of maternity leave is associated with initiation of breastfeeding, more leave, more breastfeeding

Managerial women are more likely to breastfeed than shift workers.



In 2009 study on working women, 23% discontinued breastfeeding in the month preceding return to work, 29% during the month after returning to work and another 20% during the second month after returning.

**Employer benefits if employed mothers breastfeed:**

**Cost savings**

Less illness in children of breastfeeding employees  
Lower health care costs (an average of \$400 per baby over the first year)

Improved employee productivity

Improved morale and greater loyalty

Improved ability to attract and retain valuable employees

Family friendly image in the community.



Maternity leave of less than 6 weeks is associated with a fourfold higher failure to establish breastfeeding.

Maternity leave of 6-12 weeks is associated with a twofold higher failure to establish breastfeeding.



The U.S. has limited maternity leave regulations. The federal leave program allows for 12 weeks of UNPAID job-protected leave during pregnancy or childbirth. This law excludes companies of <50 employees. Part-time work is not included.



A study in 2008 found that employed women who combined direct breastfeeding with bottle feeding of pumped breast milk breastfed for the longest duration. It was surmised that the skin-to-skin contact was important.

**WORKPLACE STRATEGIES TO PROMOTE BREASTFEEDING**

**Convene a task force to develop a program that includes:**  
A break room close to women's worksites.  
Access to breast pumps or provided pumps with access to collection kits.  
Room large enough to accommodate several users comfortably. Comfortable chairs.  
A room that is free from intrusion.  
Sink, toilet, paper towels and soap.  
Refrigerator for storage.

Allowing child to come to work or on-site daycare.  
Nursing breaks are paid and are counted as working time.  
Breastfeeding education  
Access to lactation specialist.  
Inform all employees about the company's breastfeeding support policy.

Consider flexible scheduling and longer paid maternity leave.  
Be aware of legislation and policies promoting workplace support for breastfeeding women.



GOALS OF THE UNIT

**Care of Stored Breast Milk**

**Storage times:**

warm room	73-77 degrees	4 hour
cooler	59 degrees	24 hours
refrigerator		
fresh	32-39 degrees	8 days
thawed	32-39 degrees	24 hours
freezer door	varies	2 weeks
deep freeze	18 degrees	12 months

Store in 1-4 ounce portions  
Date it  
Combine different pumping sessions, but date  
    it with initial session  
Breast milk is not spoiled unless it smells bad



To thaw

Do it slowly in the fridge (12 hours).  
Take out of the freezer and put into the  
fridge the night before you plan to use it.  
Do not let it thaw on the counter in room temp.  
Alternatively, thaw under running water by  
slowly increasing the temperature.

To warm

Heat water in a cup, then add container of milk.  
Use a bottle warmer.  
**DO NOT USE MICROWAVE OR HEAT DIRECTLY ON  
STOVE.**  
Swirl the cream that forms on the top of the thawed milk  
before feeding.

