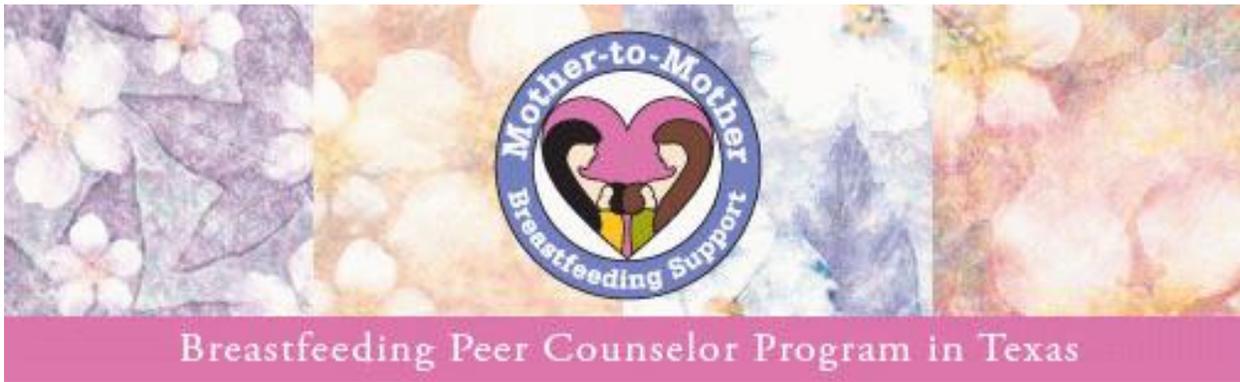


# Moms Helping Moms



**WIC Breastfeeding Peer Counselor Manual  
for Counselors**

Stock #13-06-11342



# Moms Helping Moms

## WIC Breastfeeding Peer Counselor Training Manual

**Stock No. 13-06-11342**



# **Moms Helping Moms**

## **WIC Breastfeeding Peer Counselor Training Manual**

Produced by

**Texas Department of State Health Services**

Nutrition Education and Clinic Services Unit

Linda Brumble, MA, Unit Manager

Hellen Sullivan, RN, IBCLC, Nutrition and Breastfeeding Training Coordinator

In cooperation with

**Austin/Travis County WIC Program**

and

**La Leche League of Texas**

Written by

Jeanne Byler Mitchell, RN, MSN, IBCLC

La Leche League Leader

and

Jewell Stremmer, CLE

DSHS Peer Counselor Coordinator

Copyright 1991. Tenth Revision 2008. No part of this manual may be reproduced or sold for commercial purposes without the express written permission of the Texas Department of State Health Services, Bureau of Nutrition Services.

# Comprehensive Training



# Class 1 Outline

- I. Introductions
- II. Overview of the Peer Counselor Program
- III. Advantages of Breastfeeding
- IV. Human Milk for Human Babies
- V. How Breastmilk Protects Babies
- VI. The Amazing Breast
- VII. Babies Have Personalities
- VIII. Mother Nutrition

# Reading Assignment

All reading assignments are taken from The Womanly Art of Breastfeeding, Seventh Revised Edition, by La Leche League International, except the pamphlets on Day 2 and 4.

The reading should be done before the final review on the last day.

**Chapter      Topic ..... Page #s**

## Day One

Ch. 5	How Many Times Should I Feed the Baby? .....	70-72
Ch. 12	Nutritional Know-How .....	205-220
Ch. 18	Human Milk for Human Babies .....	339-369
Ch. 19	How Breastfeeding Affects A Mother. ....	371-388

## Day Two

Ch. 2	Preparing To Breastfeed .....	26-29
Ch. 4	Your Baby Arrives .....	45-66
Ch. 5	Leaking .....	73-74
Ch. 7	Sore Nipples .....	110-116
Ch. 7	Is Your Baby Getting Enough Milk? .....	132-135
Ch. 7	If Your Milk Supply Is Low. ....	135-139
Ch. 17	Nipple Confusion .....	317
Ch. 13	Ready for Solids .....	223-232
Ch. 14	Weaning Gradually, With Love .....	233-254
Ch. 15	Discipline is Loving Guidance .....	255-268
Pamphlet:	When Babies Cry	

## Day Three

Ch. 10	The Manly Art of Fathering .....	183-192
Ch. 11	Meeting Family Needs .....	193-204

## Day Four

Ch. 7	Common Concerns .....	115-145
Ch. 8	Breastfeeding and Working .....	149-165
Ch. 16	Special Situations .....	271-296
Ch. 17	When Extra Care is Needed .....	295-336
Appendix	Marmet Technique of Manual Expression .....	425-428
Pamphlet:	How to Handle a Nursing Strike	

## Day Five

Review

## **Advantages of Breastfeeding**

### **Breastfeeding is Best for Baby**

#### *Meets baby's physical needs!*

##### **Colostrum is the perfect first food**

- <Protects against diseases and infections.
- <Helps baby eliminate meconium, his first bowel movements.

##### **Mother's Milk is Superior infant food**

- <Contains all necessary nutrients in the correct proportions.
- <Content changes as baby's needs change.
- <Digests easily, no constipation, less colic
- <"Species specific" -- human milk for human babies

##### **Promotes good health**

- <Provides antibodies to protect against infection Prolongs period of natural immunities
- <Breastfed babies have:
  - <Fewer illnesses, less hospitalization
  - <Faster recovery when ill
  - <Fewer allergies
  - <Reduced chance of obesity

##### **Promotes physical development**

- <Hand-eye coordination
- <Jaw, teeth and speech development
- <Brain growth

#### *Meets Baby's Emotional Needs!*

##### **Bonding: It's more than food!**

- <Mother association positive; knows mother through all senses:
  - <Taste of milk
  - <Smell of mother
  - <Hears mother's heartbeat and voice
  - <Skin to skin contact
- <Comforting when baby is ill
- <Fills need for closeness, security
- <No waiting! Always available at the right temperature

#### *Breastfeeding is Best for Mother*

##### **Physical Benefits**

- <Breastfeeding is the natural extension of a woman's pregnancy, it continues the natural reproductive cycle.
- <Decreases postpartum bleeding
- <Aids in natural weight loss
- <Makes night feedings easier, mother can get more rest

##### **Emotional Benefits**

- <Promotes bonding -- Prolactin relaxes
- <Increases self-confidence
- <Increases perception of babies needs

<Makes comforting a sick or well baby easier

**Plus...**

<Saves time and money

<Makes going places and traveling easier

<Delays return of fertility

<Always available - important in emergencies

***Breastfeeding is Best for Family***

**Family Benefits**

<**Baby is more enjoyable**

<Softer skin

<Sweeter smell; bowel movements not offensive

<Breastmilk has less odor and less staining

<**Free hand for sibling**

<**Money saving**

<Fewer doctor bills

<no bottles, no formula

<No stained clothes

<No baby food needed for first six months

**Society Benefits**

<**Ecological**

<No energy use in production or shipping; no packaging materials

<No production animals, feed, or machinery needed

*Adapted from La Leche League International Fact Sheets*

## More Advantages of Breastfeeding Did You Know?

### Allergies

#### Baby

**Babies who are breastfed have fewer allergies:**

- <Less common and milder eczema
- <Atopic disease
- <Food allergy
- <Respiratory allergy
- <Recurrent wheezing

### Cancer

#### Mother

**Mothers who breastfeed are diagnosed with the following cancers less often than women who never breastfeed.**

- <Breast Cancer
- <Ovarian Cancer
- <Endometrial Cancer
- <Cervical Cancer

There is increasing evidence that the more the mother breastfeeds, the greater her protection.

#### Baby

**Babies who are breastfed are diagnosed with childhood cancers less often than babies who are not breastfed.**

- <Lymphoma
- <Hodgkin's Disease

*The more human milk babies receive, the stronger the association.*

*Breastfed baby girls also have a lower rate of breast cancer as adults.*

### Development and Wellness

#### Mother

- <Delayed return of fertility
- <Lower rate of unplanned pregnancy
- <Less anxiety
- <Acts as a protective mechanism for mother and infant in an adverse environment
- <Improves mother-child relationship

#### Baby

- <Breastfed babies differ from formula fed babies in growth and development.
- <Infants have improved interactions with others due to emotional link with mother.
- <Psychomotor abilities are enhanced.

- <Social capability is improved.
- <Bayley mental development score averages 8 points higher.
- <More physiological organization.
- <Increased reactivity.
- <Increased cognitive development.
- <Higher IQ.
- <Lower heart rate with lower expenditure of energy.
- <More beneficial development of thyroid gland activity.
- <Better visual acuity.
- <Improved immunologic responses to immunizations.
- <Fewer days missed at day care.
- <Improved outcome after cleft lip and/or palate repair.
- <Improved dental outcome such as:
  - <Lower incidence of malocclusion.
  - <Lowers risk of anterior-posterior misalignment.

## **Disease**

### **Mother**

**Mothers who breastfeed receive protection from the following diseases:**

- <Rheumatoid arthritis
- <Osteoporosis and hip fracture

**Mothers with the following conditions may be encouraged to breastfeed:**

- <Cardiovascular disease or hypertension
- <Diabetes (IDDM)
- <Multiple Sclerosis
- <Cystic Fibrosis
- <Hepatitis C

**Mothers who are HIV+ should not breastfeed their babies.**

*Maternal medication need not interfere with breastfeeding; for most illnesses, there is a medication that is compatible with breastfeeding.*

### **Baby**

**Breastfed babies have less risk of the following diseases:**

- <Juvenile insulin-dependent diabetes mellitus (IDDM)
- <Severe liver disease in babies with  $\alpha$ -antitrypsin deficiency
- <Heart disease
- <Ulcerative colitis
- <Crohn's disease
- <Vitamin A deficiency

**Babies with PKU may be breastfed**

**Babies with Cystic Fibrosis may breastfeed**

## **Infections**

### **Mother**

<Fewer urinary tract infections

### **Baby**

**Babies fed mother's milk also are less likely to have:**

<Middle ear infections (otitis media)

<Gastrointestinal illness

<Diarrhea

<NEC (necrotising enterocolitis)

<RSV (respiratory syncytial virus)

<Upper and lower respiratory tract infections

<UTI (urinary tract infections)

<HIB (Haemophilus influenza type B)

<SIDS (Sudden Infant Death Syndrome)

*Breastfed babies have less hospitalization due to illness, shorter hospital stays.*

*Optimum health of the infant and child depends on amount and duration of breastfeeding.*

*Adapted from Facts About Breastfeeding 1989-1997, La Leche League International*

## Human Milk for Human Babies

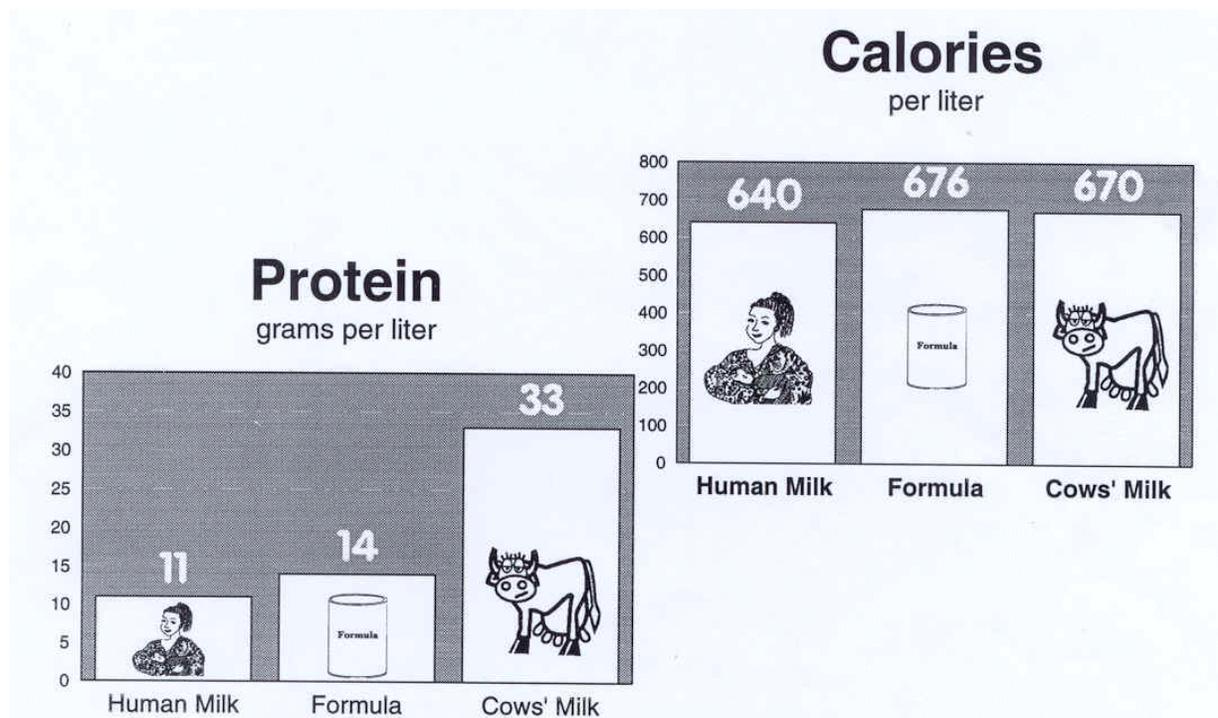
### Comparing Breastmilk and Substitutes

#### Human Milk

Babies grow in a unique and very special way. Human milk is designed to give babies a special balance of nutrients to help them grow in the best way possible. There are thousands of components in human milk that are readily available and easily digested.

#### Substitutes

Infant formula companies work very hard to create a product that is as close as possible to mother's milk, but they can never duplicate the ways in which the living cells of human milk adapt to the needs of infants. Formulas are basically cows' milk, soy, or some other protein source with added vitamins and minerals. Formulas do not have the same ingredients in the same proportions as breastmilk.



#### Protein (WAB 336-338)

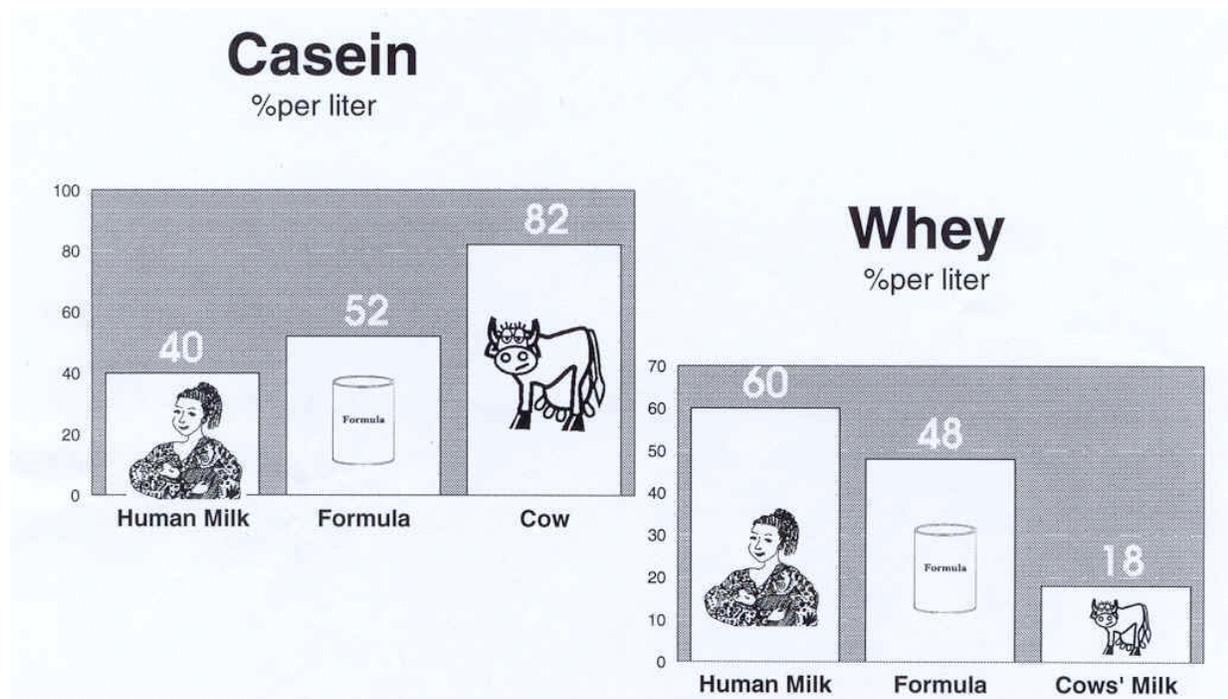
< Protein is made of **amino acid** building blocks. The proportions in breastmilk are as different from those in cow's milk as babies are from calves.

< Ceratin breastmilk proteins are capable of destroying harmful bacteria and protect babies from infections. Cow's milk protects against diseases of the cow. Formulas do not protect human babies. Infant formulas are heated during processing, which destroys some of the properties of the proteins, including the ability to fight infection.

< Breastmilk is lower in protein than cow's milk because babies grow more slowly than calves. Cow's milk is three times higher in protein which can strain the immature kidneys of a baby

## ***Taurine***

< **Taurine is an amino acid** that is important in the development of the human brain. It is found in high concentrations in breastmilk. There is virtually no Taurine in cows' milk. Formula manufacturers began adding Taurine to formulas in the past decade, once researchers discovered it's importance, but breastfed babies have always received ample supplies.



## ***Casein and Whey***

*Casein is solid.*

*Whey is watery.*

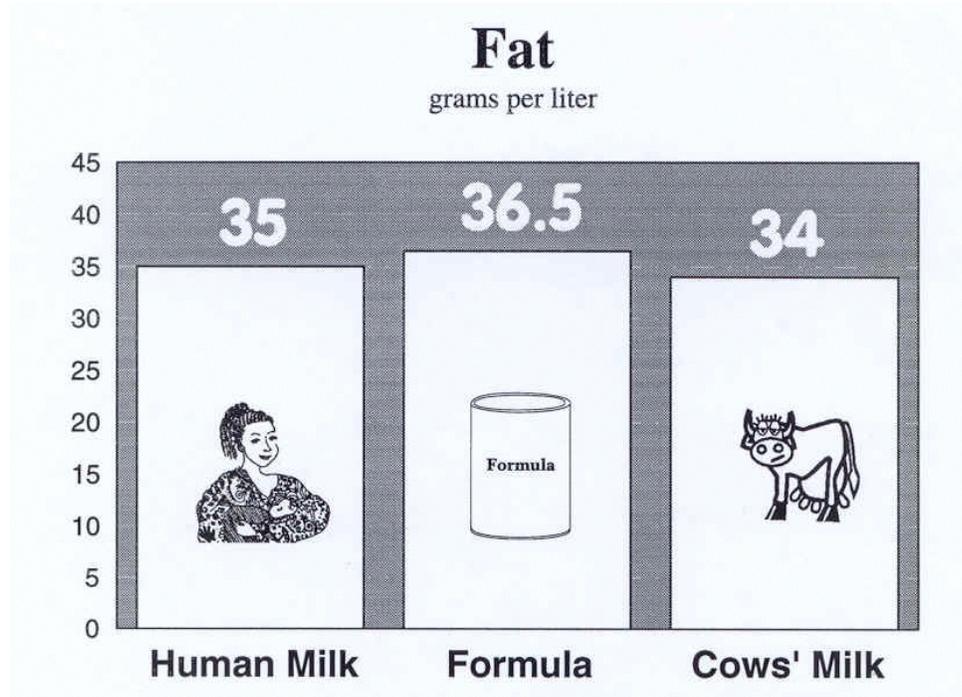
< Milk is made up of two types of protein: casein and whey.

< The proportion in breastmilk is 60% whey and 40% casein.

Cow's milk is 18% whey and 82% casein.

< Breastmilk is more easily digested by the infant because of the high whey content. Cow's milk is higher in casein, which is harder for human babies to digest and forms harder and larger stools. This is why breastfed babies need to be fed more often and formula fed babies seem "satisfied" and can go longer between feedings.

< Even though formula can have a whey/casein ratio that is closer to breastmilk, the formula-fed baby's stool is still hard, smelly and the baby is more likely to suffer from constipation.



## Fat

*The kinds of fats contained in cow's milk or formula are not the same as those contained in human milk.*

(WAB 343--345)

*The amounts of fat in human milk are not the same as those contained in formula or cows' milk.*

*The fat content of breastmilk varies from the beginning to the end of a feeding.*

The fats in human milk have long chain polyunsaturated fatty acids derived from linoleic and linolenic acid. These are called DHA and AA. DHA and AA are thought to be necessary for optimal development of the retinas of the eyes, brain tissues, and linings of nerves and arteries. Formulas sold in the United States before 1997 did not contain DHA and AA. Some formulas were reformulated in 1997 to include DHA and AA derived from oils in tuna fish, and certain algae and fungi.

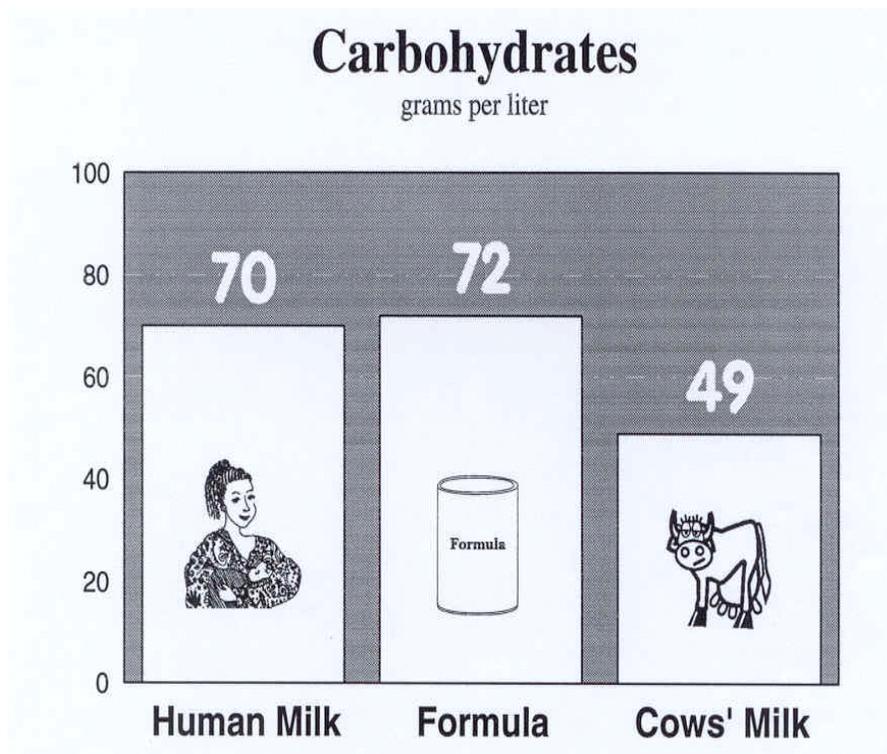
- ▶ The fat in breastmilk accounts for 40% of a baby's calories.
  - ▶ Cow's milk is high in fat and calories, but the fat is not digested or absorbed as well as the fat in breastmilk.
  - ▶ The fat in infant formulas is often from vegetable oils such as coconut oil, which are easier to digest than the fat in cow's milk, but are not as good for the infant as the fat in breastmilk.
  - ▶ The fat in breastmilk is absorbed at a rate to promote excellent weight gain in the baby.
- ▶ **Foremilk** is present at the beginning of a feeding. It has less fat and calories, is more watery and bluish in color.
  - ▶ **Hindmilk** has a higher fat content, helps satisfy a baby's appetite, helps baby gain weight and is more yellowish in color.

## Cholesterol

< Cholesterol is needed for the growth of the baby's brain and central nervous system which grows quite rapidly in the first year of life.

< Breastmilk contains more cholesterol than cow's milk and much more than infant formulas.

< Breastmilk cholesterol also helps develop the enzyme needed later in life to break down cholesterol.



## Carbohydrates (WAB 345)

< The carbohydrates in breastmilk come from lactose, or milk sugar.

< Lactose is absorbed slowly, giving the baby a steady supply of energy for the rapidly growing brain.

< Lactose helps the baby absorb phosphorus, magnesium and other minerals.

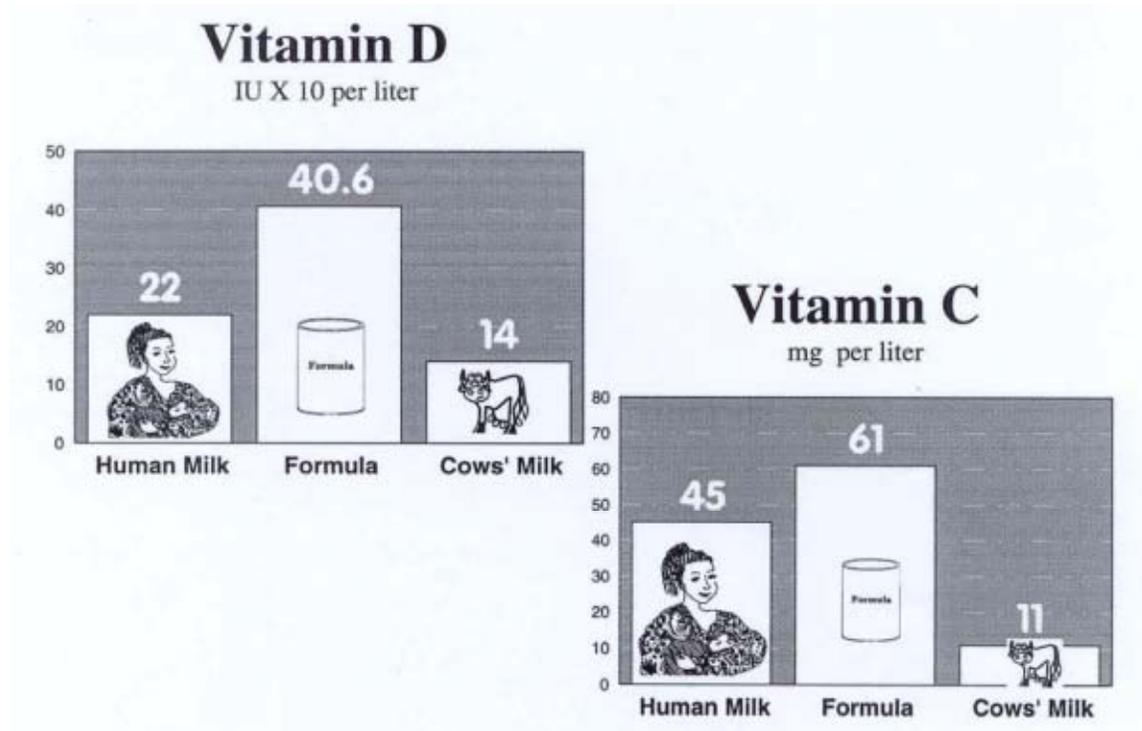
< Lactose feeds the lactobacilli, which inhibits the growth of harmful bacteria in the baby's body.

< Breastmilk contains more lactose than cow's milk or infant formula. Most infant formulas make up the difference with sucrose, which is sweeter and is absorbed faster by the baby's body. Lactose is absorbed more steadily so the baby is not subjected to sugar "highs" and "lows."

## Vitamins and Minerals

(WAB 345-349)

Breastmilk gives a complete balance of vitamins to the baby in a form that is most easily absorbed.



### *Vitamin D*

► The American Academy of Pediatrics released new guidelines for breastfed infants and Vitamin D supplementation in 2003. The AAP recommends a supplement of 200 IU per day for all exclusively breastfed infants and those who do not receive at least 500mL per day of vitamin D-fortified formula or milk to begin within the first 2 months of life. Since human milk typically contains a vitamin D concentration of 25IU/L or less, breastfed infants need adequate sunlight exposure to prevent vitamin D deficiency or rickets. Growing concern about sunlight and skin cancer prompted the AAP to recommend supplementation.

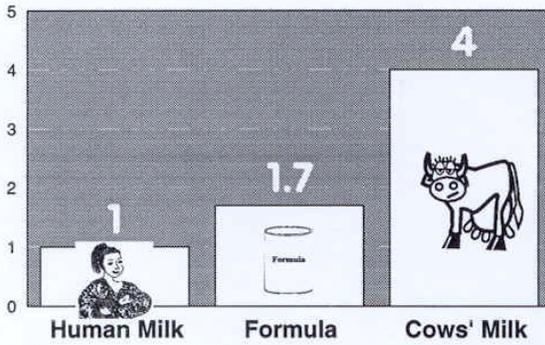
### *Vitamin C*

► Breastmilk contains all the Vitamin C a baby needs if the mother is eating adequately. A mother must replenish her supply of Vitamin C daily, but this is not difficult as many fruits and vegetables contain Vitamin C.

► All other vitamins are available in breastmilk in amounts that best suit the growth of the baby.

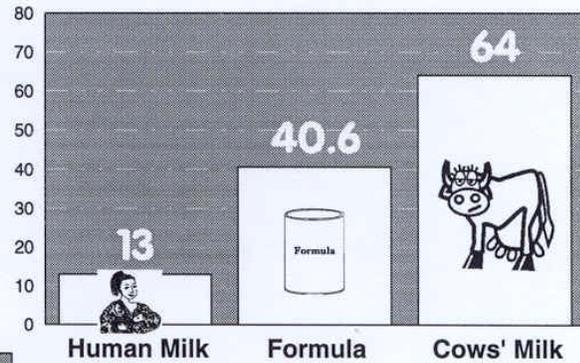
## Vitamin B-12

micrograms per liter



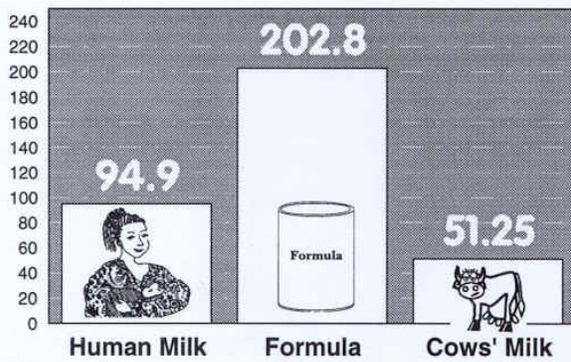
## Vitamin B-6

microgram X 10 per liter



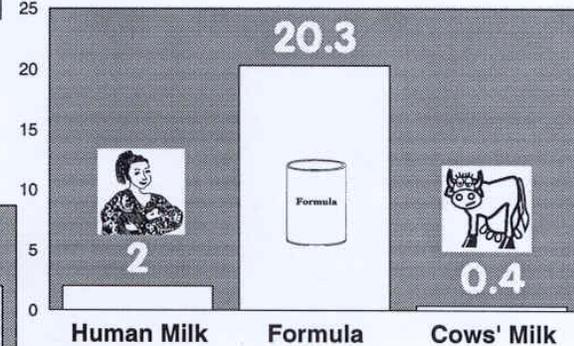
## Vitamin A

IU X 20 per liter



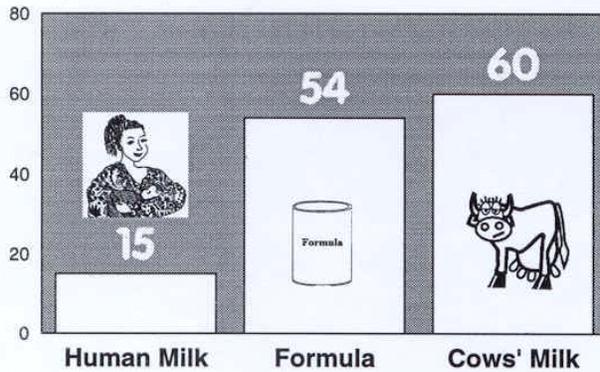
## Vitamin E

IU per liter



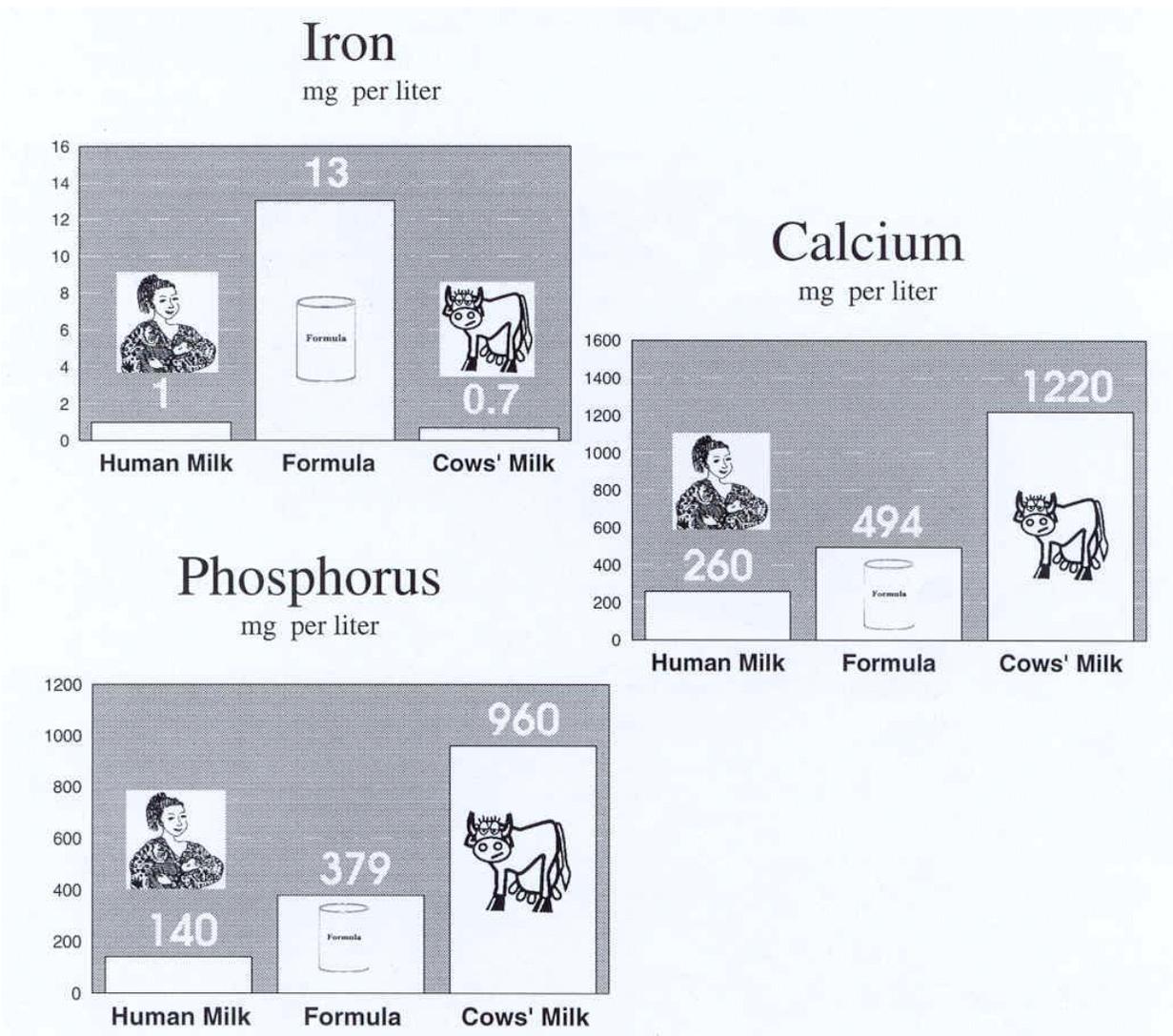
## Vitamin K

micrograms per liter



**Minerals**

< It is important to remember that more is not necessarily better. The higher mineral content of cow's milk can strain the baby's immature kidneys.

**Iron**

< The absorption of iron from breastmilk is about 49%, while the absorption from cow's milk and infant formulas is about 7-12%. That is why formula companies have put so much more iron in their products than breastmilk has.

**Calcium and Phosphorus**

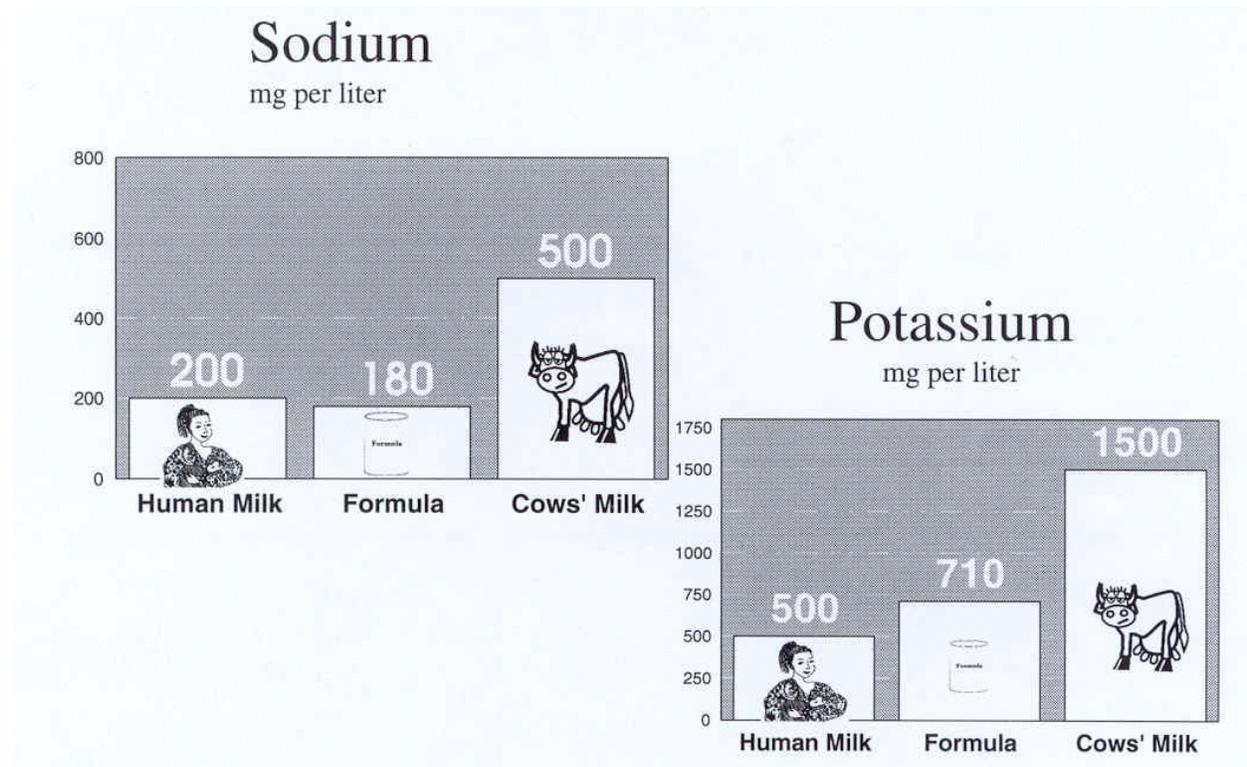
< Calcium and phosphorus are absorbed into the body together with Vitamin D. Cow's milk and infant formulas contain much more calcium than breastmilk, because cows must start walking from birth.

**Zinc**

< Zinc is more easily absorbed from breastmilk. Colostrum and breastmilk are especially rich in zinc.

**Fluoride**

< Breastmilk contains fluoride in amounts that reflect the level of fluoride supplementation in the water supply. The American Academy of Pediatrics does not recommend fluoride supplements for breastfed babies in areas where the mother's water supply has adequate fluoride.



## How Breastmilk Protects Babies

### Immunities (WAB) 344-357

**During  
Pregnancy:**

The placenta delivers antibodies from the mother's blood to the baby.

***IgG***

<Antibodies are proteins that help the mother resist infections. Immunoglobulin IgG is one of these proteins that crosses the placenta to protect the fetus. This protection can last up to six months after birth.

**Colostrum:**

Colostrum comes from the breasts in the first few days after birth. It is a thick, typically yellow fluid.

<Colostrum is high in protein, needed for rapid brain growth.

<It is lower in fat and carbohydrate than mature milk (and thus lower in calories), so it is more easily digested by the newborn.

<Colostrum has a laxative effect. It helps babies get rid of meconium, the first black tarry stools.

<Colostrum contains many antibodies that provide protection from infection and illness. Most of the protective and anti-infective factors found in mature breastmilk are provided in even greater quantities in colostrum.

**Mature  
Breastmilk:**

One of the greatest benefits of breastfeeding is the lower incidence of allergies among infants. Breastfeeding protects against allergies in two ways, by eliminating formula or cows' milk from the infant's diet, and by limiting the absorption of antigens in the intestinal tract. Breastmilk and colostrum contain high levels of immunoglobulins which help protect against illnesses and infections. The major immunoglobulins in breastmilk are IgG and IgA. Both are secreted by the mammary glands.

***IgA***

<IgA concentrations are particularly high in colostrum and breastmilk. IgA can survive in the infant's intestines and provides defense against viral and bacterial infections. It provides protection at the entryways to the body - the intestines, throat and lungs.

***Lysozyme***

<Levels of lysozyme, an enzyme that keeps harmful bacteria from growing, are 300 times greater in breastmilk than in cow's milk.

***Interferon***  
(WAB 349)

<Mother's milk produces white blood cells that react to the presence of a virus by making interferon, a protective protein.

***When baby gets sick***  
(WAB 349)

<The breastfed baby, when attacked by a new germ, passes this organism to the mother. The mother immediately begins to manufacture a matching immunoglobulin (germ fighting protein) that passes back to the baby.

# The Amazing Breast

(WAB 371-377)

## Alveoli

▶ Alveoli are grape-like clusters where milk is made. A band of muscle cells surround each alveoli to push milk through the ducts to the nipple.

## Areola

▶ Areola is the darker skin behind the nipple. Size and color varies. This is a visual cue or target for the baby to latch on to the breast.

## Montgomery Glands

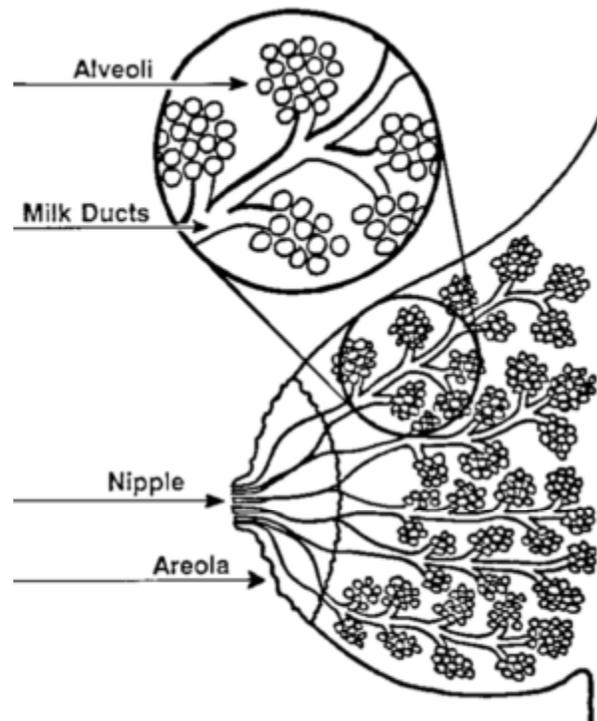
▶ Montgomery glands are small bumps on the areola that produce an oil which lubricates and protects the nipple and breast against dryness and bacteria.

## Ducts

▶ The ducts transport milk from alveoli to nipple openings.

## Breast Size

▶ Size of the breast is determined by the amount of fatty tissue in the breast, and does not indicate how much milk a woman can produce.



The Amazing Breast (cont.)

***During Pregnancy***

- < The breasts begin to grow and alveoli begin to develop during pregnancy to prepare for milk production.
- < Extra fat is stored in the breasts during pregnancy to maintain an adequate calorie supply during breastfeeding.

**Hormones and The Lactation Cycle**

***Prolactin***

- < Prolactin is called the "mothering hormone". Prolactin relaxes the mother and stimulates the alveoli to produce milk. It stimulates the growth of alveoli during pregnancy.
- < Prolactin signals the breast to speed up milk production and to continue to produce milk as long as the baby nurses.

***Oxytocin***

- < Oxytocin produces uterine contractions in labor. In breastfeeding, oxytocin causes the muscles around the alveoli to contract producing the let-down reflex.

**Milk Production**

***Colostrum***

- <The breasts begin producing colostrum in the fourth month of pregnancy. Some mothers may notice some leaking. This is normal.

***Milk "Comes In"***

- < For the first 2 to 5 days after birth the breasts produce colostrum for the baby. About 2-4 days after delivery, the colostrum changes in composition to what we call milk. The baby's suckling stimulates milk production. The more often a baby nurses, the more milk the mother produces.

***The Milk "Let Down"***

- < The let-down reflex usually takes place after the baby has nursed for 40 seconds or so. Some mothers feel a tingly feeling in the breasts, others feel uncomfortable, some feel nothing at all.
- < A mother can tell she is having a let-down by a change in the baby's swallowing pattern. The other breast may leak. The first let-down is usually the only one felt, but there may be several in the course of a nursing.

***Foremilk***

- < The **foremilk** is about 1/3 of the milk at each feeding. It is the milk stored in the sinuses and is watery and bluish.

***Hindmilk***

- < The **hindmilk** comes to the baby after several minutes of nursing. The hindmilk has more fat than the foremilk. The fat helps the baby gain weight and is important to the baby's growth.

## Babies Have Personalities

(WAB 71-73)

A baby is to be loved. What a baby needs and wants are the same thing. Baby does not manipulate you. If she cries, she needs to be held, or fed, or comforted or re-diapered, but not ignored. A mother can expect to spend one out of three hours caring for a baby.

**YOU CAN'T SPOIL A BABY.** They thrive and grow on being held, talked with and touched.

### **The average newborn**

- < Nurses between 8 and 15 times a day.
- < Sleeps from 12 to 20 hours a day with 1 or 2 longer periods of sleep balanced by 1 or 2 fussy periods.
- < Is usually responsive when handled.
- < Is generally quiet, alert and listening when awake.
- < Soothes himself by sucking or other types of comforting.

### **The quiet newborn**

- < Nurses the same as the average baby, but has longer sleep periods. Is less demanding with little fussiness. The mother must make a conscious effort to give the baby enough touching and attention to meet the baby's needs even if the baby does not demand it.
- < The mother should not overdo other activities just because the baby allows her so much free time. Remind this mother to give time to her baby.

### **The placid baby**

- < May ask for only 4 to 6 nursings a day.
- < Must be watched to make sure he's getting enough to eat. This baby sleeps 18 to 20 hours a day and is quietly alert and tranquil when awake. He does not give the proper signals to the mother for nursing and attention.
- < The mother must be reminded to feed the baby every two to three hours whether the baby asks for it or not.
- < The mother should avoid giving the baby a pacifier and should offer the breast whenever the baby begins sucking his fist or thumb.

### **The active and fussy newborn**

- < Nurses more frequently; nurses greedily and is impatient for milk to let-down.
- < This baby sleeps fewer hours and is not able to calm himself when awake.
- < He has several crying spells a day and may startle and cry easily and may be disturbed by noise, visitors or outings.
- < This baby enjoys being warm and swaddled, being held close and held often, and may not nap well in a strange place.
- < He should be allowed to nurse, doze and play at the breast for generous periods of time if he finds comfort in this.
- < He may spit up from so much nursing and needs lots of burping if he is nursing too eagerly and getting lots of air.

### **The colicky newborn**

- < Suffers severe discomfort most of the time, not just once or twice

a day. The colicky baby has a piercing cry, sharp gas pains, and draws up legs sharply to abdomen or goes rigid and arches back.  
< The continuous crying causes the baby to develop gas and further aggravate the discomfort. The baby does not quiet with cuddling.  
< The mother needs lots of support since she cannot soothe her baby. The mother feels frustrated, angry, resentful and exhausted. Her tension is transmitted to the baby in a vicious cycle.  
< Burping the baby with pressure on his abdomen can be helpful.  
< A massage after a warm bath can also help comfort the baby.

**REMEMBER: YOU CAN'T SPOIL A BABY**