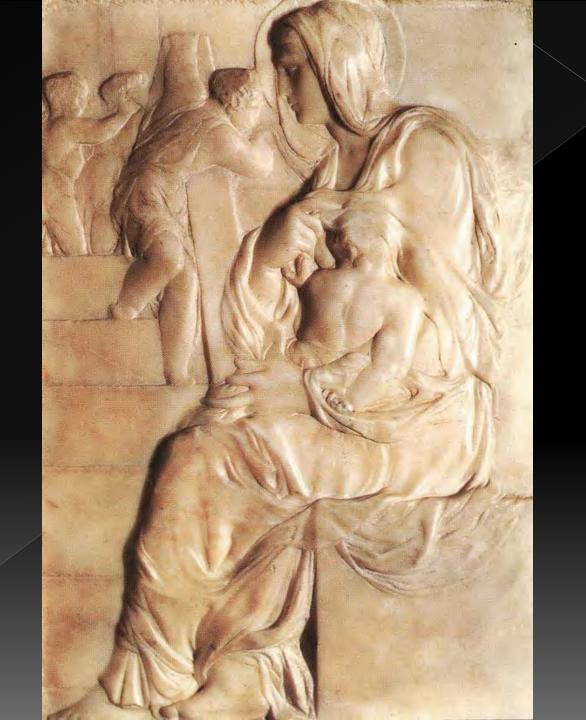
Breastfeeding Basics

Shelby County Breastfeeding Coalition

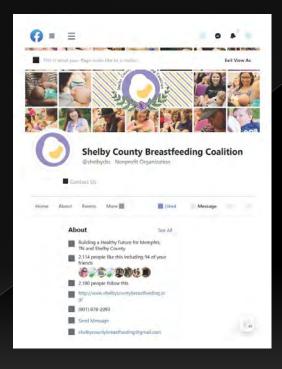
Dr. Allison Stiles, FAAP, FACP,
Pediatrician, IBCLC
TN AAP Chapter Breastfeeding Coordinator
Academy of Breastfeeding Medicine



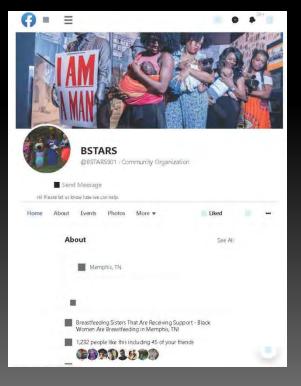
www.shelbycountybreastfeedingcoalition.org



SCBC Facebook Page



BSTARS



SCBC Resource Guide -on websites

Breast Pumps:

Target Medical: (901) 323-1304 x111 Methodist Le Bonheur Germantown Hospital: (901) 516-6893 Methodist South: (901) 516-3475 St. Francis Hospital Bartlett: (901) 820-7025 Regional One Health: (901) 545-7736 (if applicable, and delivered at ROH) Worthy Medical Supply: www.freebreastpump.net

WIC provides breast pumps to eligible moms separated from their babies or with special circumstances. Contact your local WIC clinic or Shelby County Breastfeeding Coordinator for details.

Call your insurance company for assistance obtaining a breast pump. now covered by most providers under the Affordable Care Act!

Tennessee Laws Protecting Breastfeeding

A mother may breastfeed in any public Local governments shall not prohibit or private place she is authorized to be. (TCA 68-58-101)

Breastfeeding shall not be considered public indecency or nudity, obscene, or sexual conduct. (TCA 68-58-102)

breastfeeding in public by local ordinance. (TCA -68-58-103)

Employers must accommodate breastfeeding mothers at work. (TCA 50-1-305)

Free Apps for your phone

Baby2Sleep-Free message with safe and healthy sleep information Text4Babies—free text information service designed to promote maternal and child health

Check out our website for videos, apps, and more at www.shelbycountybreastfeeding.org

Tennessee Breastfeeding Hot-line available 24/7 (855) 4BFMOMS (855-423-6667) USA Helpline through La Leche League USA (877) 4-LALECHE (Leave message) Office on Women's Health available M-F 8-5 CST(800) 994-9662





Our Mission:

To protect, promote, and support breastfeeding in Shelby County through the assistance of the medical profession, the public health system, and consumers by educating physicians and other health care providers, encouraging "Baby-friendly" practices in all Shelby County hospitals, and by educating the public through community outreach activities.





Contact us at

shelbycountybreastfeeding@gmail.com www.shelbycountybreastfeeding.org Like us on Facebook! (7)



Why Breastfeed?

Benefits for Baby

Less of all Infectious Diseases

- Anything you had in last 12-24mo
- Anything you are vaccinated for
- Mom's IgG's cross placenta last for ~2 weeks
- Mom's IGA's in Breastmilk to baby while Breastfeeding

Less Autoimmune disease and Immune System Cancers (Immune regulation, "Right from Wrong"

Less Obesity, Diabetes type 2

Child Health Benefits: Infectious Diseases

Human milk feeding decreases the incidence and severity of all types of infections:

bacterial meningitis
bacteremia
diarrhea
respiratory tract infection
necrotizing enterocolitis
otitis media
urinary tract infection
late onset sepsis

Child Health Benefits: Less Autoimmune disease and Immune System Cancers:

- Diabetes Type 1
- Leukemia, Lymphoma
- Asthma
- Eczema / Atopic Dermatitis
- Kawasaki Disease
- Crohns and UC
- MS (Multiple Sclerosis)

Child Health Benefits

- Less Obesity
- Less Diabetes Type 2
- Neurodevelopmental Benefits
- NICU babies –less Sepsis and NEC
- Less SIDS
- Better Neonatal Abstinance Syndrome (Opiod withdrawal recovery)
- Less Risk of Abuse and Neglect



COVID 19

Mom vaccinated in 3rd Trimester –best for baby Antibodies across placenta last for ~2 weeks IgA antibodies in Breastmilk –as long as breastfeeding

Newborns very low risk of COVID infection Moms who get COVID have increased risk of pre-term delivery

Mother's Health Benefits

Reduced Risk of:

- Endometrial cancer
- Breast Cancer
- Ovarian cancer
- Obesity
- -DM2
- Postpartum Depression
- Multiple Sclerosis

WORTH IT! 911 Deaths, 13 Billion Dollars ...

"The United States incurs \$13 billion in excess costs annually and suffers 911 preventable deaths per year because our breastfeeding rates fall far below medical recommendations."

J. Pediatrics 4/2010

Employers Benefit from supporting BrF Moms!

CIGNA reported in a 2-yr study of 343 employees showed an annual savings of:

- \$240,000 in health care expenses
- 62% fewer prescriptions
- \$60,000 in reduced absenteeism rates.

Dickson V, et al, 2000 – "The positive impact of a corporate lactation program on breastfeeding initiation and duration rates"

9 Beautiful
Photos of Black
Black Moms
Proudly
Breastfeeding

HuffPost Life

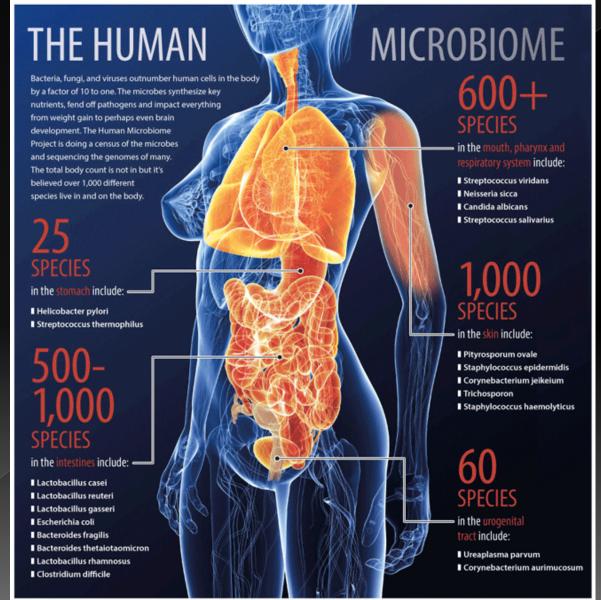


How does Breastmilk do all that??

Human Milk Content

- Stem Cells
- MicroRNAs
- Secretory antibodies IgA -> goes to peyers patches
- HMO's Human Milk Oligosaccharide s –PREbiotic –feeds microbiome, over 200 different
- Glycoproteins and glycolipids
- Free fatty acids –antimicrobial properties
- Cytokines and chemokines
- Hormones, growth factors, enzymes
- HAMLET cells-Human Alpha Lactalbumin Made Lethal to Tumor Cells – like natural chemo
- Lactoperoxidase
- Leukocyte enhanced Myeloperoxidase
- **PSTI** Pancreatic secretory trypsin inhibitor -inflammatory mediator
- Glycosaminoglycans complex disaccharides that make it to Colon
- Lactoferrin-antimicrobial, blocks pro-inflammatory cytokines
- Lysozyme-enzymatically active against bacterial cell wall of gram positive organisms

The Human Microbiome Project



Breastmilk in Summary

- Provides inside Microbiome coating of good bacteria:
 - " The Guardian at the Gates"
- Trains the baby's immune system to live in harmony with it's environment
- Trains the baby's immune system to know right from wrong
- Makes the baby's gut less permeable
- Fights off bad bacteria, viruses directly
- Promotes proper feeding behavior (eat until full)
- Provides nutrition



M. C. Escher

Why NOT Breastfeed? Barriers

- We live far from our family women group
- Loss of the skill
- Type A can't measure it, can't control it, can't have it NOW, no time for it
- More Hospital interventions
 - Inductions, C sections, Preterm deliveries
- Hypertension, Pre-Eclampsia
 - increases risk of premature birth
 - In African Americans, premature birth is #1 cause of Infant Mortality
 - Pre-Eclampsia being overly, prematurely diagnosed
- No US Maternity Leave policy
 - 2 weeks off maybe if use up all sick time.
 - Hard to imagine pumping, returning to work
- Pediatricians untrained, wrong advice

How to Breastfeed

How to get Started

- Tell Nurses you want to Breastfeed
 - No other feed
 - No pacifiers
- After birth, baby will be placed on your chest Skin to Skin
- Nurses will help you get newborn latched on
- GOLDEN HOUR after birth -1st Feed and immunization!

Skin to Skin



Safe Skin to Skin (STS)

Labor and Delivery Nurse will put newborn on your chest

- You should be awake
- You should be head up, at a slight angle
- Baby on upper chest
- Baby's head turned to side
- Baby's Nostrils visable

Calms Baby

Helps your Oxytocin flow

Latch On

Newborn naked

Beside you for Football position

Turn baby in - chest to chest

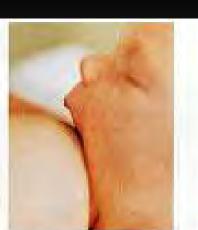
Hand at nape of neck, fingers ear to ear at back of head

Use elbow to hold the body tight

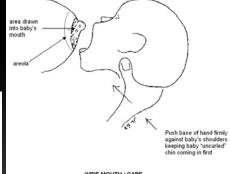












Images used with Permission of Fit Pregnancy Magazine ©2001

Cross Cradle Position Best until baby has head control

Common Breastfeeding Positions



Laid-back nursing position ed from first breastfeeding and great for anyone



Cross-cradle hold
Helpful for preemies, newborns,
or babies with trouble latching on



Good for nursing twins, c-section recovlarge breasts, and flat or inverted nip



Side-lying position
Great for nighttime feedings
and c-section recovery



Cradle holdComfortable once baby latches on



Cross Cradle Best Initially



Lack Back Nursing Natural, and good for Vigorous Letdowns

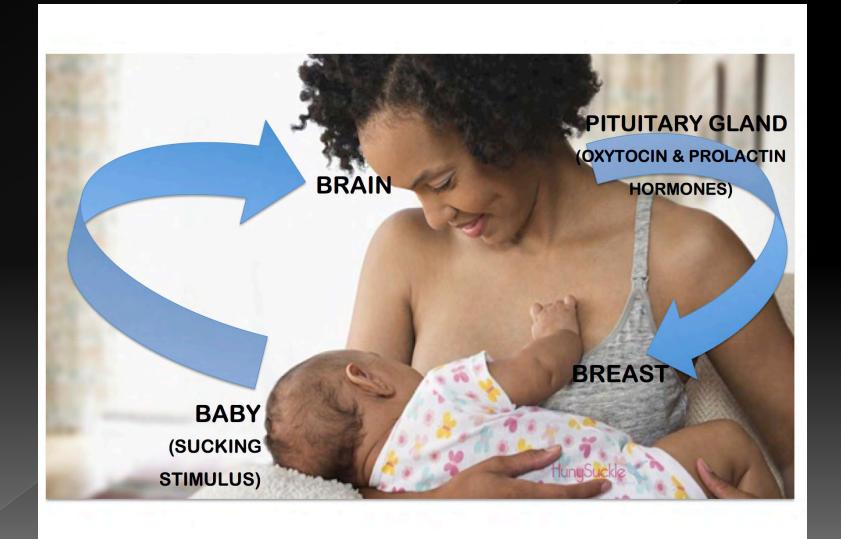


Breastfeeding Twins



How Breastfeeding Works

How Breastfeeding Works



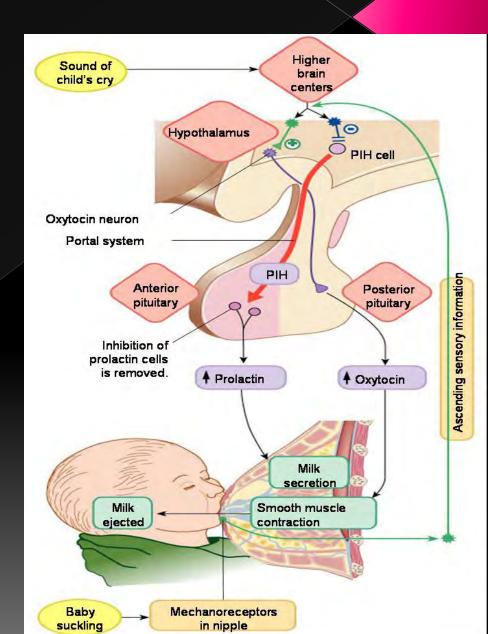
How Breastfeeding Works -The Details

Milk production starts weeks before birth

Parturition and the drop of progesterone triggers increase in **Prolactin**

Feeding -> triggers **Prolactin** first

Oxytocin – comes a minute or 2 after start feeding. Triggers milk ejection reflex or LETDOWN



The Letdown! Oxytocin

- Comes a minute or 2 into feeding
- Ejects the milk
- Also causes cramping in first 4 days
- Also may cause leaking on other side when full
- Starts and stops
- Inhibited by stress and pain

** After latch, take deep breaths, relax, think LOVE

"Autocrine" Control Overall control of the Milk Supply

The more milk removed from breast

The more milk made

What to Expect

First Days

- Golden Hour is Golden newborn awake, ready to feed
- Next 23 hours- sleepy!
- "2nd Night Syndrome" Day 2-14 naturally on schedule opposite to you - up at night, sleepy all day
- Cluster feeding helps milk supply increase
- 3 hour nap in the day
- Don't let cluster feeding rattle you

Get Help in the Hospital

- All Nurses can help you
- Push the red button for help with as many feeds as possible
- Lactation Consultant often just 1 of them
- Vaginal delivery get 1-2 days in hospital
- C-section get 2-4 days in hospital
- Pediatrician can keep you, even if OB discharges Mom

Need to Feed

Newborns need to feed 8-12 x a day
Best to just feed the baby when

they give cues

More Nursing => More Milk

DAY 1-4 Milk Volume Increases Rapidly!

DAY 1
Stomach
Is the size of a Cherry!



End of DAY 1

A Full Feed = 5 ML (teaspoon)

Day 2 - 10 ML

Day 3 - 20 ML

Day 4 - 30 ML

www.letmommysleep.com

Going Home

- Partner in charge of guests, minimize
- Guests bring casseroles, help with chores
- Folks can hold the baby (after hand washing) but can't feed the baby.
- Mom and Baby rest, nurse, nap in back room
- Get 2-3 hour naps in day while Partner holds baby





Baby Wearing Memphis

Common Complaints Problem Solving

"Baby Won't Wake Up"

Keep trying every 3 hours.

First 2 weeks – sleepier in daytime, up more at night (opposite to Mom's schedule)

Letdown starts and stops so baby falls asleep and doesn't get a full feed.

Get another letdown by changing baby to other side, breast compression with breast hand.

Wake the baby up -Vestibular rocking, dress down to diaper, change the diaper

Vestibular Rocking – Calms Down and Wakes Up

Hold baby off chest at a 45 degree angle. Gently raise and lower babies head, rocking gently up and down.

Or hold at 45 degree angle – bottom against your chest – and pat bottom





"Baby Won't Go to Sleep"

- Night time "witching hour"? Just nurse if that works.
- 5 S's Swaddle, Suck, Swing, Swish, and Side/Stomach (holding them)
- Ensure a full feeding hearing active swallow, seeing long sucks, feeling lightening
- Too upset to latch? Hand express and spoon feed a few drops
- Newborn "Sleep Disorder" they naturally have more REM sleep.
 They fall directly into REM sleep after eating. If you lay the baby down while in REM sleep, they wake up.
- So hold them and get them through this phase. Wait til you see their eyes and face stop moving and twitching. Then lay them down.

"Should I Supplement Until my Milk Comes In?"

- No, just nurse as often as baby gives the signs
 - licking lips, turning head, hand to mouth
- Milk increases every day doesn't just "come in"
- If breastmilk doesn't come out, it won't "come in"
- Babies are born for this term newborns have brown fat that helps survive this time

Can My Partner Give a Bottle so I Can Sleep?

- This will take away from your supply
- Best to pump anytime a bottle is given
 - easier to just nurse
- Family can keep baby for 3 hour stretches so you can nap in the daytime best
- After a month, some will give a bottle of pumped milk, letting Mom sleep. When awake, Mom feeds and pumps as breasts will be extra full. Risk that may down-regulate supply.

"Mother and Child (No. 8)" by Shuzo Ikeda



Why do Mom's Quit?

- #1 Perceived Insufficient Supply
 - Usually not true!
 - Milk volume increasing
 - Babies cry
 - Babies born for this
- #2 Sore Nipples
 - Lanolin, APNO (Rx)
 - Latch issue
 - Get help



How to Know that Breastfeeding is Going Well??

- If good latch, shouldn't hurt except at initiation
- When latched, deep relaxation breaths (to get Letdown)
- Look for long sucks, a whole second long, 8-15 in a row
- Listen for swallows –at end of 8-15 sucks
- First 4 Days: Feel uterine cramping that's a Letdown!
- Day 2-4: Feel increased breast density milk coming in

How to Know that BrF is Going Well??

- Day 4-6: See milk changing from gold tblue/white
- Feel for Letdown or see milk leakage on opposite breast (some never leak)
- Day 7: Lightening: Feel breast fullness & density before feed >> softer, lighter afterward
- Poops and Pees drop off day 2-3 then increase in #. Goal 4 poops at Day 4
- Progression of poop from black to yellow
- Weight gain at Docs office -regain birthweight by Day 14.



Increasing Milk Supply

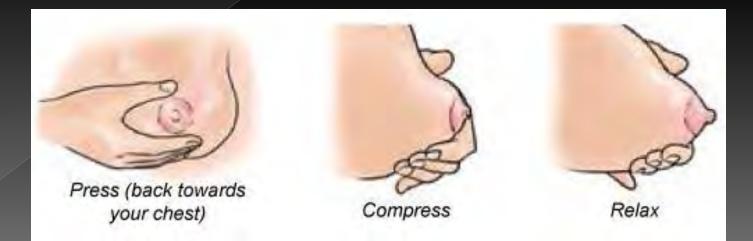
Hand Expression

- Milk comes in sooner and more volume
- Can help if rough moment
- If sleepy and won't feed
- Start immed -3x a day If baby is 6 pounds or less



Hand Expression

- 2 Fingers an inch behind the areola
- Gently push fingers straight in
- Bring fingers together, feeling breast tissue between fingers. Gradually increase the pressure behind the breast tissue.
- Relax fingers



Video on Youtube: "Hand Expression LPCH Stanford"

Latest information on 60VID-19

Newborn Nursery at Lucile Packard Children's Hospital

Excellent Care from the Moment of Birth

Hand Expression of Breastmilk

Until recently hand expression of milk has been an under-utilized skill in our institution. But there are many benefits of knowing how to express milk from the breast without the use of expensive or cumbersome pumps. In this video, Dr. Jane Morton demonstrates how easily hand expression can be taught to mothers.





For your information

This material was developed by Jane Morton, MD and produced for educational purposes only.
Reproduction for commercial purposes is prohibited. Utilization of the materials to improve care of pregnant women and their newborns is encouraged with proper ditation of source.

Breastfeeding

Breastfeeding in the First Hour

Preparing for Successful Breastfeeding

Early Initiation of Breastfeeding

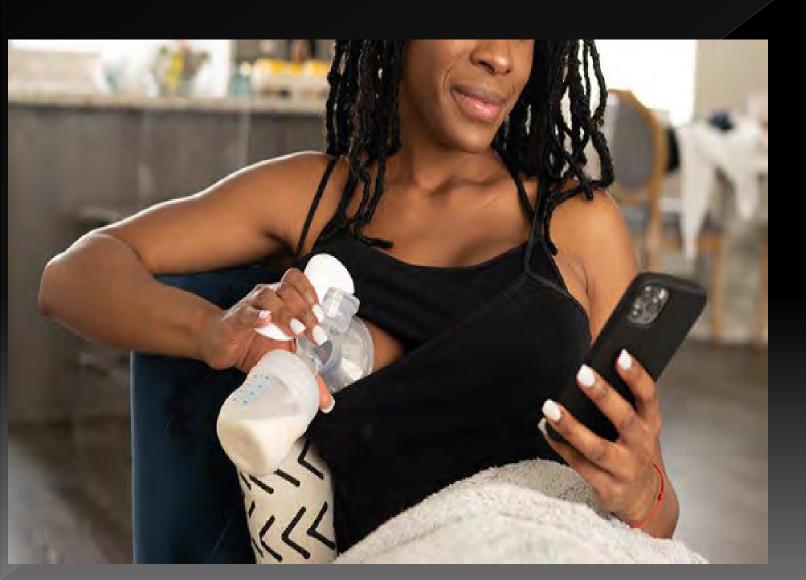
Colostrum Vials at Target - Bring your drops to hospital



Alternatives to a Bottle



Pumping



Pumping

- A lot of work!
- Wait 2-8 weeks, until BrF established
- If start pumping you must do it every day.
- The more you pump, the more you make, and the more you have to keep pumping
- Recommend to start to pump 1 feed a day about a month before returning to work. Let partner give it in a bottle.

Haakaa to Catch Letdown on opposite side





Pumping for Returning to Work

- When going back to work, all you need is the first days milk supply – 6-10 oz.
- At work, you are pumping milk to go with the baby the next day
- Pump as often as baby eats every 3 hr
 - 2x if 8 hr day (~11am and 2pm)
 - 3x if 12 hr day
- Building a supply 6 10 oz
 - When baby sleeping longer (if 4 hour stretch at night, you will be full) – Feed then pump the extra
 - Baby may sleep 4-5 hour stretches at 1-2 months
 - Keep hand pump at bedside
 - If pump in night- can leave at the bedside til morning

Pumping at Work – It's OK!



Pump and Parts

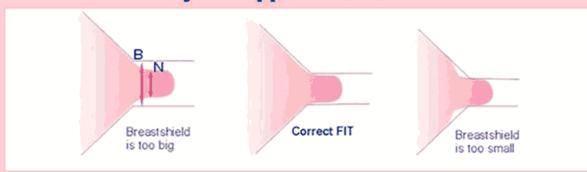


Sizing your Shields

Breastshield Selection Guide Choose the right size of breastshield for you!

Nipple Diameter (mm)	14-17mm	18-20mm	21-24mm	25-28mm
Suggested Breastshield Size	20mm	24mm	28mm	32mm

How to measure your nipple diameter?



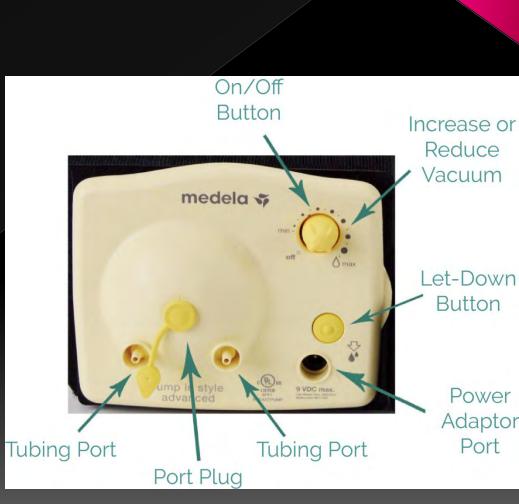


When it comes to pumping comfort, size matters. Spectra Baby USA created one-piece breastshields that are now available in 4 convenient sizes to accommodate all mother's need's. Our sizes include 20 mm (S), 24 mm (M), 28 mm (L), and 32 mm (XL) diameters.

The inner diameter of the breastshield (B) should be 3-5mm larger BEFORE a pumping session. You should be able to see free movement of your niple during pumping and there should be little or no suction of the areola into the breastshield tunnel.



How to Use a Spectra S1 and S2



Pump Mechanics

- Flanges or Shields nipple needs to fit in the tube section
- Suction Force adjust to be comfortable but to pull the nipple into the tube section. Set and leave.
- Pump Speed
 - Automatic Pumps start fast to get letdown then go to slow. The button goes back and forth.
 - Fast speed is "Letdown phase"
 - Slow speed is the "Expression phase"

Pump Until Empty –Manage Letdowns

Pump until Empty –get to know your breasts

Letdowns start and stop -to get another Letdown

- Turn speed back up
- Put away Work, Facebook
- Think of the baby, pictures, "LOVE"

Takes about 20min

Breastmilk Storage

Chart comes with Pump

Fresh Breastmilk

- Out of fridge for 6 hours
- In fridge for a week
- ■In freezer 3-6mo

Frozen Breastmilk -use bags

- Out of fridge 1 hour
- In fridge for 1 day
- So freeze in small 1-3 oz amounts
- Date bags with a sharpie





Pumping Simplified

- Sterilize first use
- Then wash all in the dishwasher on high
- Buy multi sets of the shields/flanges so don't wash at work
- Keep extra set at work just in case
- Throw used parts in a Kroger bag to bring home and wash
- Hanging mesh bag for each part for easy assembly (lids, screw caps, nipples, disks)







Elvie and Willow Pumps





Troubleshooting Issues

Breast Issues

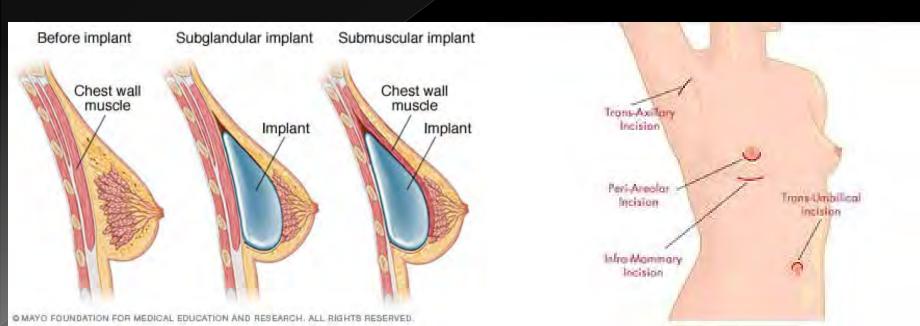
Inverted or Flat Nipples





Breast Surgery and Breastfeeding

- Basically → Test pump and Hand Express if ducts are cut, there will be no colostrum
- Cut ducts? Can't tell from the scar.
- If Reduction or Augmentation of cis-woman usually able
- Implant below the muscle (Submuscular) better
- Avoiding Peri-areolar approach better
- Lumpectomy usually able
- Silicone implants not a contraindication to breastfeeding



Breast Surgery and Breastfeeding

All surgeries can cut nerves and ducts

Most can make some milk but may not be able to make full supply. Can still feed and have a good experience.

Total mastectomy –can feed on other breast. 1 breast can make full supply of milk.

Nipples completely removed –ducts likely cut but some can grow back together.

Transgender - Breastfeeding and Chestfeeding

- Anyone with breast tissue can be induced to lactate.
- Adoptive parents can be induced to lactate.
- If not, chestfeeding is an option
- Recommend consultation with IBCLC



Hypoplastic Breasts –Insufficient Glandular Tissue

May not be able to fully breastfeed

Tuberous Breast Deformity Classification

Normal





Type I

Hypoplasia of the lower medial quadrant.





Type II

Hypoplasia of the lower medial and lateral quadrants, sufficient skin in the subareolar region.





Type III

Hypoplasia of the lower medial and lateral quadrants, deficiency of skin in the subareolar region.





Type IV

Severe breast constriction, minimal breast base.





von Heimburg D, Exner K, Kruft S, Lemperle G. The tuberous breast deformity: classification and treatment. Br J Plast Surg. 1996 Sep;49(6):339-45. doi: 10.1016/s0007-1226(96)90000-4. PMID: 8881778.



Troubleshooting – Baby Issues

Tongue Tie? Ankyloglossia

It is a Nipple - Tongue System

Not all ties need to be fixed!

Tongue should be seen coming out to the outer edge of lower lip

Baby Doc should diagnose.

*Kotlow Diagnostic criteria (one) for clinically apparent tongue-ties in infants





**Type I(*4LK) -total tip involvement



Type III (*2LK) Distal to the midline.The tongue:may appear normal



Type -II (*3LK) Midline-area under tongue (creating a hump or cupping of the tongue)



Type IV (*ILK) Posterior area which may not be obvious and only palpable, Some are submucosally located

**Lactation consultants diagnostic criteria

Lawrence Kotlow DDS 2011

Lip Tie - Usually doesn't need fixing





Top Left – the top lip is rolled in and it pinches. You can flip or roll lip out with your finger.

Top Right is a better latch

Nipple Shield

A temporary help as nipples heal
Can reduce letdowns and affect milk supply
Must work on latch, fix tongue tie, or baby grows
Reco try without shield first and every day





Breast Shells

- for cracks at base of nipple
- for collecting letdown, leaks
- can help flat nipples come out



Engorgement

Breast full, hard, inflammed
From problems with BrF – milk not getting removed!
Latch can be difficult

To help

- "Reverse Pressure Softening" –with fingers apply pressure behind the nipple to push back pressure, to soften the nipple
- Hand express some milk off in the shower
- Work on latch issues
- Pump for comfort, just a little
- NSAIDS (naproxen)
- Wet cool cabbage leaves

Mastitis – Red painful area of breast, fever





Go the WHOLE 40 - Full Term!

- No CHIPS or COKES
- PreEclampsia causes Preterm Delivery and increased Infant Mortality
- If you and baby are well, advocate to wait
- Every week of prematurity associated with neurologic issues
- Small babies are more irritable, sleepy, difficult to feed
- Induction affects Oxytocin
- C section babies breastfeed less

Baby in NICU

- Hand express then pump to provide milk
- Kangaroo Care in NICU
- 'Mouth care' with BrM if intubated
- HMBANA Milk Bank
 BrM last resort for <
 1500g babies



Kangaroo Care in NICU



HMBANA Banked Milk

- •Milk bank milk for all NICU babies under 1500g.
- New Mothers Milk Bank of TN!!
- Milk Depot at Regional One for drop off donation of extra breast milk
- 3-5\$ / ounce
- "Milk Sharing" an option for outside of hospital



Avoid even that 1 Bottle!

- Takes away from your supply
- Baby won't be hungry at the breast
- Pumping and feeding disconnects your supply from baby's needs. Supply goes down.
- Nipple confusion if earlier than 2 weeks

Formula

- If needed appropriate amount
 - 5 ml (or cc) on day 1
 - 10 ml on day 2...
- Pump or hand express to keep up supply, and use that

Line up your Resources

Birth Doula

Pediatrician who is BrF friendly

 Ask what weight loss is too much and what they would recommend – answer is 12% and to work on BrF

Get your pump

Identify friends or family supporters who have Breastfed Birth Plan

- Skin to skin after birth
- no pacifiers or bottles
- No formula unless discussed with Mom and Doctor

Are your Medications OK? "Mommy Meds" App

Medications, etc

- Most are OK
- •Resources 'Mommy Meds' App, 'Medications and Mothers Milk' App, Book
 - "L3" and better is OK
- •Surg, Anesthesia ok! When you are awake, you milk is ok
- •OB or Ped should be able to answer this

True Cases – Ways to Influence the Medical System

Low Blood Sugar

- Feed, Hand express, Dextrose Gel, Formula
- If Formula –only 5 cc
- Bring colostrum to hospital

Separation after Birth (Prolonged Time in Post-Op, Magnesium infusion...)

- Mom hand expresses, pumps in post-op or L&D
- Partner with baby in room -5cc formula Day 1!
- Mom in ICU nurses, partner can pump

The Medical System! What can you do?

Truly Pre-Eclampsia? Or just Hypertension?

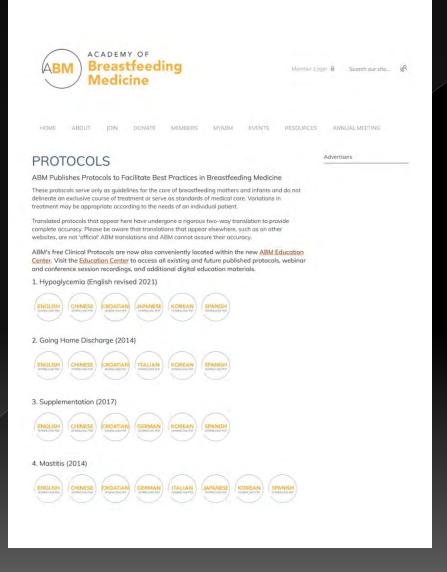
Low Sugar? Bring Colostrum to hospital. Hand express. Dextrose Gel. If formula then 5-10cc. If nurses disagree, ask them to call the Ped

SEPARATED? Mom - hand express or pump. Baby - 5cc per feed (Day 1)

NICU? Pump your milk. Push for Kangaroo care and getting baby on the breast ASAP.

LOOK AT THE BABY, NOT JUST THE NUMBERS

Protocols - Academy of Breastfeeding Medicine (www.bfmed.org/protocols)



TN Laws that Support Your Right to Breastfeed

- A mother may breastfeed in any public or private place she is authorized to be. (TCA 68-58-101)
- Breastfeeding shall not be considered public indecency or nudity, obscene, or sexual conduct. (TCA 68-58-102)
- Local governments shall not prohibit breastfeeding in public by local ordinance. (TCA -68-58-103)
- Employers must accommodate breastfeeding mothers at work. (TCA 50-1-305)

TN Breastfeeding Hotline





Video on Youtube: "Attaching your Baby at the Breast"

