The Outpatient Breastfeeding Champion Program Session 7

IABLE

Institute for the Advancement of Breastfeeding & Lactation Education

- The Instructor has no conflicts of interest to disclose
- Continuing medical education credits (CMEs) and continuing education recognition points (CERPs) for IBCLE are awarded commensurate with participation and complete/submission of the evaluation form
- CMEs can be used for nursing credits

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Building
Breastfeeding-Knowledgeable
Medical Systems & Communities

A mother is seen on day 5, 1 day after leaving the hospital s/p cesarean birth. She reports pumping and bottle feeding because her baby has not latched to either breast yet. Every time she puts the baby to the breast, the baby screams. She wonders what to do. You advise:

A. Stop bottle feeding, switch to finger-feeding, and keep trying to put the baby to the breast before finger-feeding.

B. Your baby probably has a problem such as torticollis or a sucking problem. Continue to do what you are currently doing and see a lactation specialist.

C. Continue to pump + manual expression every 3 hours. Keep your baby skin-to-skin as much as possible and let the baby move down towards the breast when he is interested. You should also see a lactation specialist.

D. A and C

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The correct answer is C

A is not correct because no studies have been done to show that finger feeding is more likely to lead to successful nursing as compared to the bottle.

B. Is not correct. There is a good chance that they baby does not have torticollis or a sucking problem.

C is correct. Keeping the baby skin to skin to allow the opportunity for self-led latch is the best way to encourage the baby back to the breast

A lactating parent who is 2 weeks postpartum reports that the baby refuses to feed from the L side. The baby fed from both sides the first 3-4 days, then became fussier on the L side over time. Now the parent is just pumping the L side. What is the most important question to ask this parent?

A. Is your let-down heavier on the left?
B. Is your milk production lower on the left side?
C. Does your baby turn his head equally to both sides?
D. Do you think your baby has any pain when lying on that side?
E. All are important

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The correct answer is E
All of these answers are possible causes for the baby not going to one side

This parent now tells you that the L breast makes more milk and has a heavier let-down. She now realizes that he chokes on that side. You advise all EXCEPT:

A. Try to nurse from the L before it becomes too full.
B. Just keep pumping the L side and nurse from the R side.
C. If the L side is too full before feeding, express the first letdown into a container or towel.
D. Change positions so that the baby is more on-top of the breast rather than underneath it.

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The correct answer is B
A, C, D are all strategies to manage over production on one side
B is not good advice because she will continue to make excessive milk on that side, and the problem won't resolve

Mom calls at 7 weeks postpartum and reports that her milk production is low. She is taking herbs and pumping after most feeds. She supplements by finger-feeding 1.5 oz (45ml) of formula after nursing, but this takes a long time. She is worried that her baby won't nurse if she introduces a bottle. She wants your opinion re what to do.

Reasonable advice would include:

A. Would you be interested in learning how to use a feeding tube at the breast?

B. Introducing a bottle is reasonable at this point, but you are correct that the baby might have less interest in nursing, it depends on the baby. Pacing the bottle may help.

C. I would like to see you to watch a feeding and do a pre and post-feed weight.

D. I suggest you see a breastfeeding specialist for a consult regarding your low production and an infant feeding plan.

E. All of the above

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The correct answer is E

Today you are seeing mom and baby 2 weeks postpartum. The baby had trouble latching in the hospital, so was given a nipple shield on day 2. She is still using the nipple shield because her baby won't latch without it.

Weight	Date
Birth	8 lb 1 oz (3657g)
Day 2 (hosp discharge)	7 lb 7 oz (3373g)
Day 3 (office visit)	7 lb 8 oz (3403g)
Day 14 (today)	7 lb 11 oz (3493g)

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Mom wants to know how his weight is. You respond:

A. The baby has not gained sufficient weight. I would like you to give a bottle of formula after each feeding.

B. The baby has not gained sufficient weight. We need to evaluate this further.

C. The baby has not gained sufficient weight. It looks like your milk production is low. I will ask the doctor to give you a medicine for this.

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The correct answer is B

A is not correct. It is possible that she has plenty of milk in her breasts, but the baby is not transferring the milk. She will need to pump after nursing, and it very possible that she will have enough milk to supplement the baby. The nipple shield on its own can lead to insufficient milk transfer

In addition, something else might be going on with the baby, causing trouble transferring milk. For example, the baby could have tongue tie, excessive sleepiness, torticollis, or nasal congestion.

C is not correct. Again, we cannot make an assumption that the milk production is low. There is a good chance that the problem is trouble transferring milk

This same mother reports that her breasts feel full before feeding, and she always sees milk in the nipple shield after nursing. You've decided that you are going to refer them to the lactation consultant. In the meantime, your advice to mom includes:

A. Please pump after feeding to maintain your production. Offer expressed breastmilk to the baby after nursing, however much he'll take, and let's talk about how to supplement.
B. Let's arrange a weight check in 3 days.
C. I'd like you to work on latch without the shield starting with skin to skin and allowing infant-led latch when the baby is not overly hungry. Another option is to latch with the shield, then remove it after the first letdown.
D. IF your baby is sleepy during feeding, please keep him awake.
E. All of the above

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E is the correct answer. If many people have not answered E, please explain why they are all reasonable to advise.

You think about this mom and baby later, and come up with ideas as to why the baby's weight is low. What is the <u>least likely</u> reason for the insufficient weight gain?

A. The baby is ill and has a decrease in appetite.

B. The baby is falling asleep at the breast.

C. Mom's production is low, possibly due to nipple shield use.

D. The baby does not transfer milk well with the shield

The correct answer is A. Most of the time, a nursing baby who is not gaining well is not ill. Either the baby is not transferring milk due to falling asleep, mom's milk production is low, or there is another reason why baby is not transferring milk, such as tongue tie or a nipple shield.

Mom calls, concerned that her 5-month old baby won't nurse when she returns from work. She nurses the baby in the am, and pumps 3 times at work. She pumps ~3 oz (90ml) each session and believes that her milk production has decreased. The baby takes a 4 oz (120ml) bottle of expressed milk every 3 hours at daycare. After work, the baby will only feed from a bottle, but will nurse in the middle of the night. You advise:

A. The baby loses the ability to coordinate the suck/swallow at the breast when awake and excited.
B. The baby may be too distracted to nurse at the breast.
C. The baby may be frustrated with the lower milk flow rate from the breast.
D. B & C

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The correct answer is D
A is not correct. It is highly unlikely that the baby cannot coordinate suck/swallow

What would you recommend to this mother?

A. Try nursing before the baby is overly hungry, in a location where there are few distractions.

B. Don't bottle feed. If the baby is hungry enough, she will nurse at the breast.

C. Arrange a visit to have her pump method checked for effectiveness.

D. Start solids in the evening so that mom does not need to pump and bottle feed.

➡ A & C

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The correct answer is E.
It is common for infants to take higher volumes in bottles when at daycare, yet mom's production is at its lowest in the evening, esp if her production declined due to going back to work.

A- nursing a baby in a quiet place without distractions can help keep the baby at the breast, especially if the baby is not overly hungry at the onset of nursing.
B starving the baby in order to force the baby to nurse is not a healthy or effective strategy. The baby will just scream.
C- recommend that a knowledgeable person watch pump to make sure she has a proper size breast shield, that she is using appropriate technique and suction, and you can teach her hands on pumping
D-Solids should not substitute for breastmilk. Only formula can do this.

You are meeting with a group of pregnant people, and they ask if there are any special recommendations for their diet during lactation. You advise:

A. If you are on a restrictive diet, such as vegan, please contact your health care provider or a nutritionist about whether you need nutritional supplement(s).
B. You need to drink approximately 8 glasses of water a day.
C. Avoid all caffeine to avoid infant irritability
D. Broccoli and cauliflower should be avoided because they will likely cause infant gas.
E. Losing weight postpartum will drop your milk production.

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A is the correct answer. Mothers who are on restrictive diets may be missing some key vitamins that are essential during lactation. A common dietary restriction is veganism, where there is little vitamin B12 in the diet.
B- the amount of water needed during lactation varies among individuals. The urine should be clear to pale yellow.
C- Caffeine is OK during lactation, just avoid overdoing it
D- Broccoli and cauliflower may cause some gas, but it is not a reason to avoid eating these foods
E. Losing weight **slowly** is reasonable during lactation and won't cause a significant drop in milk production

Session 7 Topics

- Milk expression
  - Manual, pumps
- Breast pumps
  - Manual, battery, electric
- Choosing a breast pump
- Fitting breast shields
- Operating and cleaning a breast pump
- Use of expressed breastmilk
- Returning to work and breastfeeding

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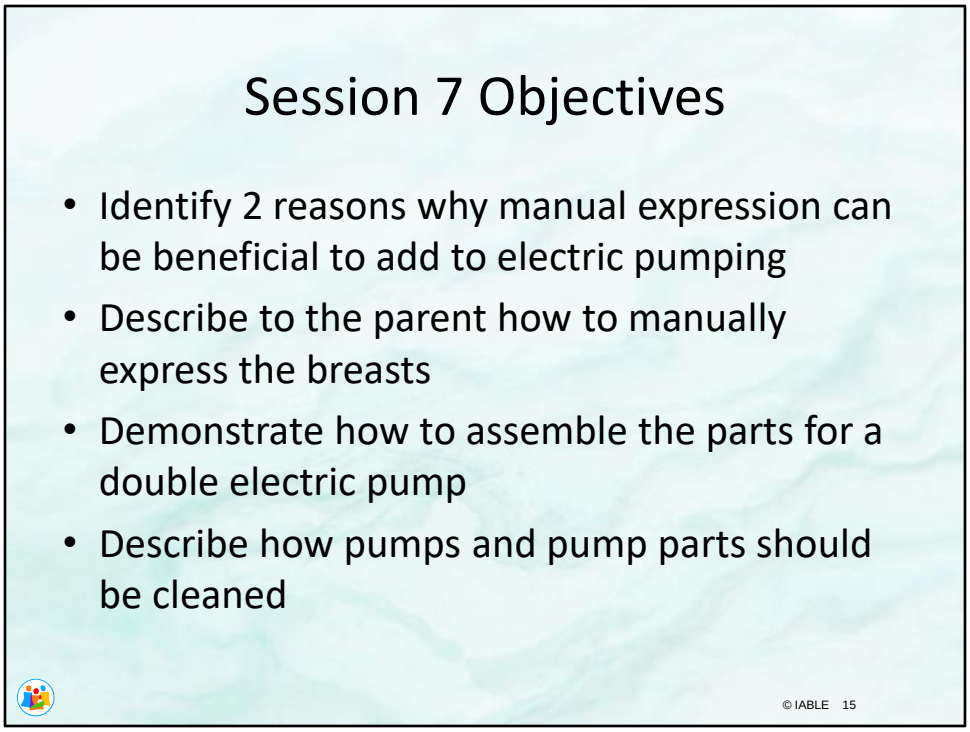
These are the topics for this session



Please read these to group. These are the learning objectives for this session

Please read these to group. These are the learning objectives for this session

Manual Expression of the Breast

Now lets talk for a few minutes about manual expression of the breast. What we mean is actually expressing milk from the breast using hands only.

Ideal Situations for Manual Expression

- The first week postpartum
- Engorgement
- Low milk production
- No pump available
- Infrequent need
- Personal/cultural preference

Manual Expression Video

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Ideal Situations for Manual Expression

The first week, or first few days, postpartum

This is one of the most important times for manual expression. Colostrum is thick and is not easily expressed with pumping. Manual expression at this time is most effective to express colostrum

Engorgement

Manual expression help to move milk and colostrum thru the swollen breast

Low milk production

Dr. Jane Morton's work from Stanford shows that manually expressing the breasts in addition to pump can increase the milk production beyond pumping alone. This is especially important for people who have premature infants and are not nursing yet.

No pump available.

Manual expression is certainly an option for individuals with no pump. This is an important skill for all lactating individuals to learn before they leave the hospital, since many don't have a breast pump in the first few weeks.

Very intermittent expression needed, infrequent need

Some lactating parents prefer to manually express because they are not separated from their children very often. They rarely need a pump.

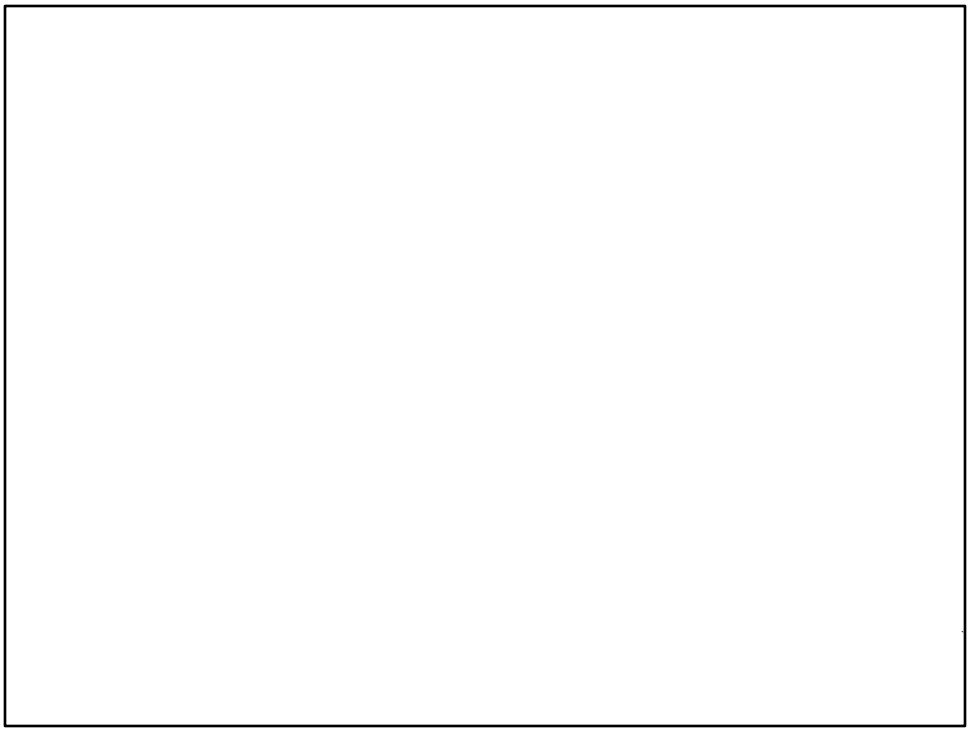
Preference

Many lactating parents don't like pumps, or have difficulty letting down to a pump

Culture

Some lactating parents come from cultures or societies where manual expression is the normal way to express milk when not nursing

After discussing this slide, the next click takes you to the video of manual expression



This slide has the manual expression video embedded

Advantages to Manual Expression	Advantages to Pump Expression
Hands are easily available	Expression might be faster
Only parts to wash are hands	Improved comfort if manual expression hurts
Can be done anywhere, no need for electricity	Can be done hands free if using an electric pump
Costs nothing	Easier for people with physical limitations
Increases milk production and fat beyond pumping	Increases milk production
Reduced risk of nipple trauma	
No associated noise	
	© IABLE. 20

This chart shows the advantages of manual expression vs advantages to using a breast pump

This chart is pretty self- explanatory

Read thru the chart

Manual Breast Pumps

- No electricity used
- Vacuum is created by squeezing a handle or lever
- Most are single sided
- The individual has control over duration of each cycle and frequency of cycles

Manual Breast Pumps

No electricity used

This is important for people who are on the move at work and don't always have access to electricity. Lactating people who live in areas at risk of losing electricity, ie hurricane or tornado areas, would benefit from having one. Manual expression is always an option as well.

Vacuum is created by squeezing a handle or lever

The manual aspect of the pump is that the vacuum is created manually

Most are single sided

This means that pumping can be slower. Also, pumping both breasts at the same time will raise the prolactin level higher compared to pumping on one side

The individual has control over duration of each cycle and frequency of cycles

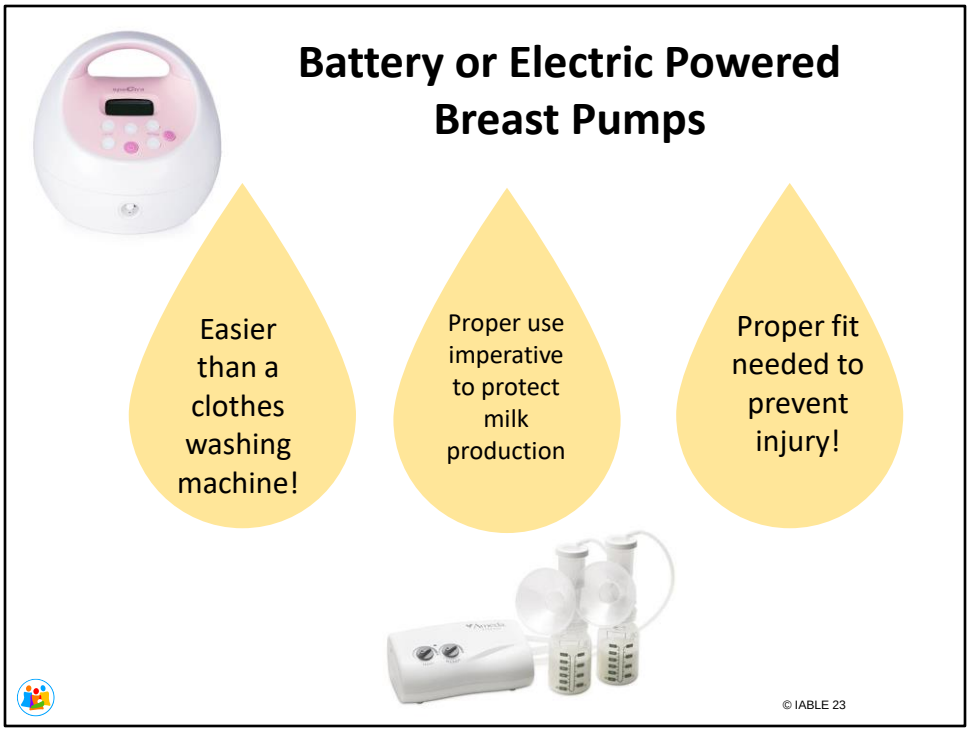
They can determine how fast the pumping will occur, and how fast the vacuum will climb with each expression

The Haakaa Milk Collector

- Soft, silicone
- Apply to the breast after squeezing
- Draws milk during a letdown
- Often used on the 2nd breast when pumping/nursing on one side
  - Only use if infant won't nurse from that breast or is done on that side
    - No stealing from the infant!
- May be traumatic due to high negative pressure and wide opening

The Haakaa milk collector is a soft, silicone container that provides a negative pressure reservoir to collect milk during a letdown

Apply to the breast after squeezing – flip back the round top so that it applies well to the breast
Draws milk during a letdown- it typically does not start a letdown
Often used on the other breast when pumping/nursing on one side- this is probably the most common use, especially in the middle of the night when the infant will nurse on just one side. However, as this has become more popular, some lactating parents mistakenly use it on the second side before the infant nurses, so that they infant does not take sufficient milk. The first letdown often has 50% of the milk in the breast at that time, so can steal significant volume from the infant.
It can cause trauma, since it does generate high pressure. It also has a wide opening, so can draw in a fair amount of breast tissue, causing bruising or microtrauma. Consider Haakaa use as a cause when working with women who have low grade breast aching.



Battery or Electric Breast Pumps

Easier than a clothes washing machine

These do not need to be intimidating. Just as most people feel comfortable figuring out how to use a washing machine at a friend's house, or at the laundromat, breast pumps can also be readily operated.

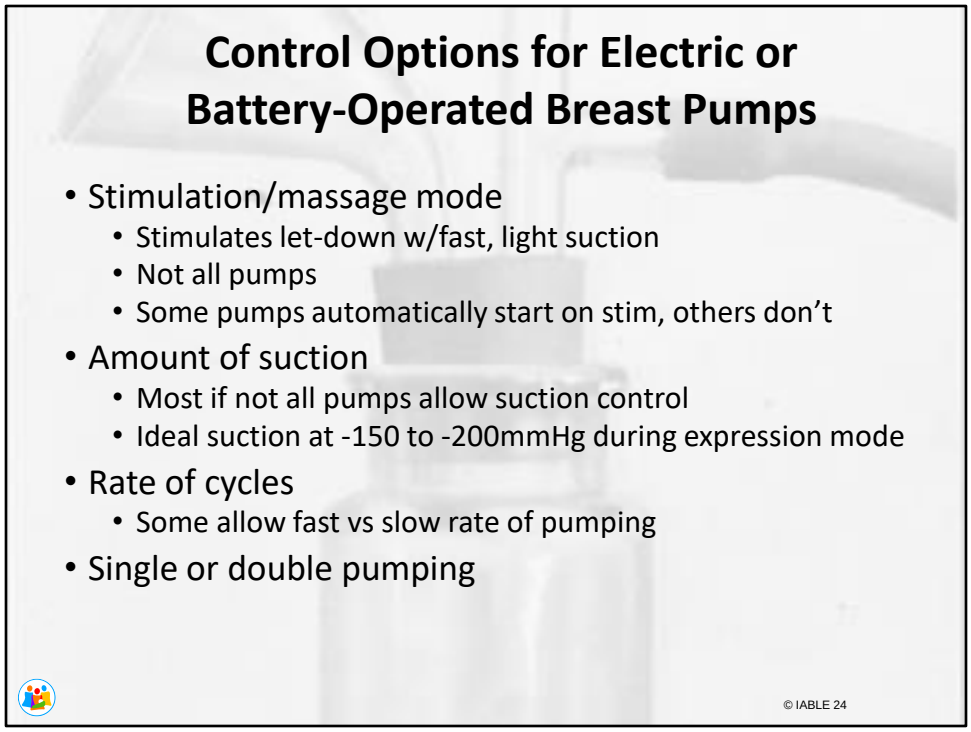
By understanding the basic functions of these pumps, Breastfeeding Champions should feel comfortable reading over the manual and teaching the parent how to use the pump.

Proper use is imperative to protect milk production

It is important for lactating parents to know the proper settings to maximize milk expression. Just turning it on and leaving it on low vacuum can prevent the establishment of a healthy milk production

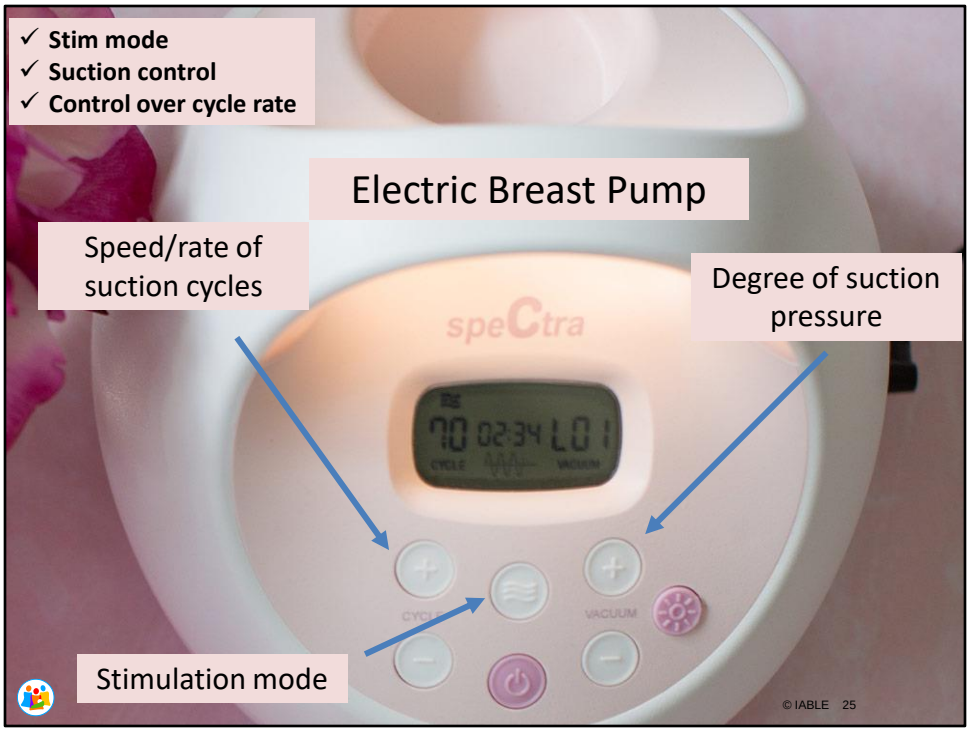
Proper fit needed to prevent injury

Parents need to know how to fit shields properly to prevent injury/pain and optimize milk flow

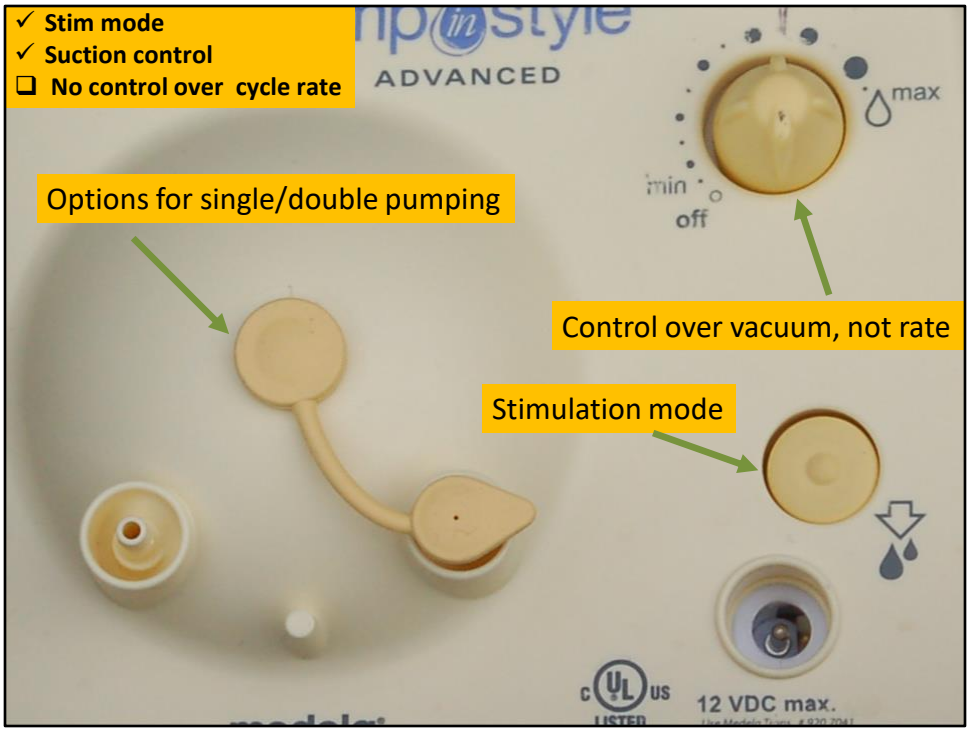


These are the control options for electric or battery operated breast pumps:

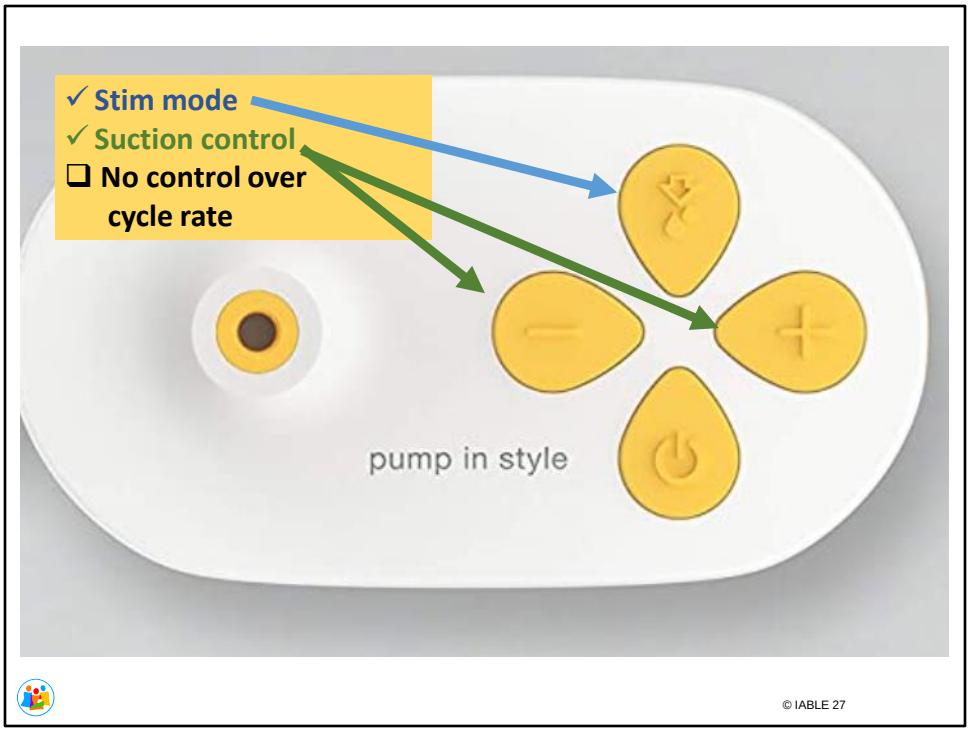
1. Stimulation/massage mode- this is meant to stimulate a let-down with fast, light suction. Not all pumps have this, and some pumps start on the stim mode, and others don't.
2. Amount of suction- nearly all pumps have an option to control how much suction there is, Ideally we would like the suction at -150 to -200mm Hg (=mm Mercury), since that his the typical suction that infants generate to remove milk when breastfeeding.
3. Rate of cycles- this is how fast cycles occur. Some are slow, such as 30-40 cycles every minute, and some are up to 60-70. Some pumps don't allow control over rate of pumping, and others do, as we will see in the upcoming photos.
4. Just about all pumps should allow for either single or double pumping



The Spectra breast pump has a stimulation mode, but it does not start on the stimulation mode. When turned on, the pump starts on the expression mode, and the person has to push the stimulation button to start the stimulation mode. It will stay in that mode until the button is pushed again.
The user can control the amount of suction, and how fast the cycles occur, between 38-54 cycles per minute.



This is the older Medela pump in style, which is still widely used. You can see on this pump how there is the option for single and double pumping. This is usually on the side of many pumps.
When the pump is turned on by turning the knob in the R upper corner, the pump is automatically in the stimulation phase. It will stay in the stimulation phase for either 2 minutes, or until the user pushes the stimulation mode button, to switch to the expression mode.
The knob in the R upper corner increases the suction strength as it is turned clockwise.
There is no control for the cycle rate, but the cycles do slow a bit automatically as the suction is turned up.



This is the newer pump in style. The controls are not much different from the older pump in style. The lower button turns it on, the buttons to the R and L control the suction strength, and the stimulation phase button is on top. It automatically starts in stimulation mode like the older version. There are not many differences in the older and newer pump in styles. Still no control over cycle rate.

The newer pump in style has a different type of vacuum cycle, more like the Spectra than the old pump in style.

Unfortunately, with the new pump in style, you don't have any markings to indicate if you are in a high or lower pressure setting.

❑ **No Stim mode**
✓ **Suction control**
✓ **Control over cycle rate**

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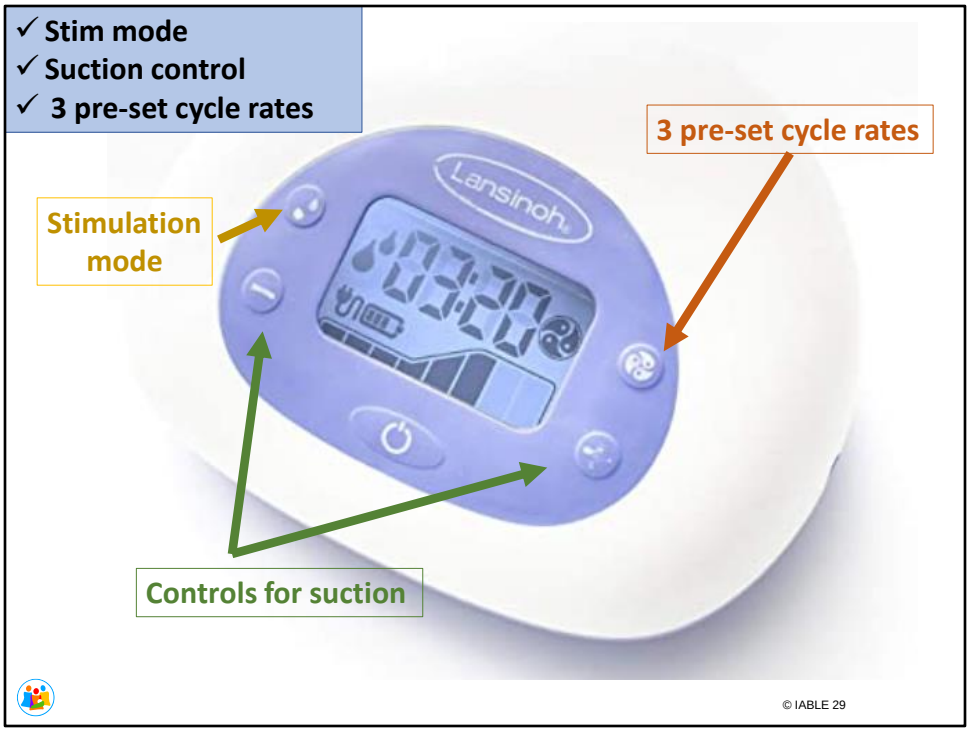
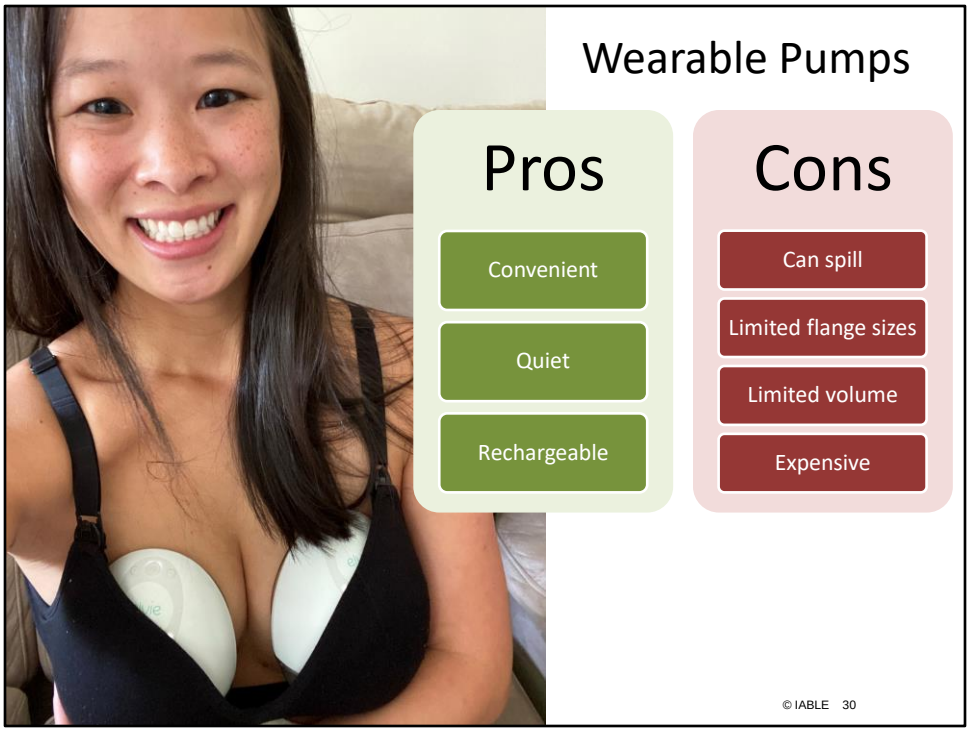
The Ameda Finesse pump does not have a stimulation mode. In order to make a stimulation mode, put the speed on high and the suction on low until milk flows. Then change to an expression mode by increasing suction and decreasing speed.



This pump has a stim mode in L upper corner, suction control with the + and – buttons, and the R upper button has 3 preset cycle rates to choose from



This person is wearing Elvie pumps, which are battery operated, one of a few on the market. Pros are that they are convenient, quiet, and rechargeable. The cons are that they can spill, the flanges don't come in all sizes needed. They hold up to 5 oz (150ml) on each side. These are expensive.

The ‘on’ button is below the word Elvie, and on top are the suction controls and the stim mode on top

Pump Expression Video

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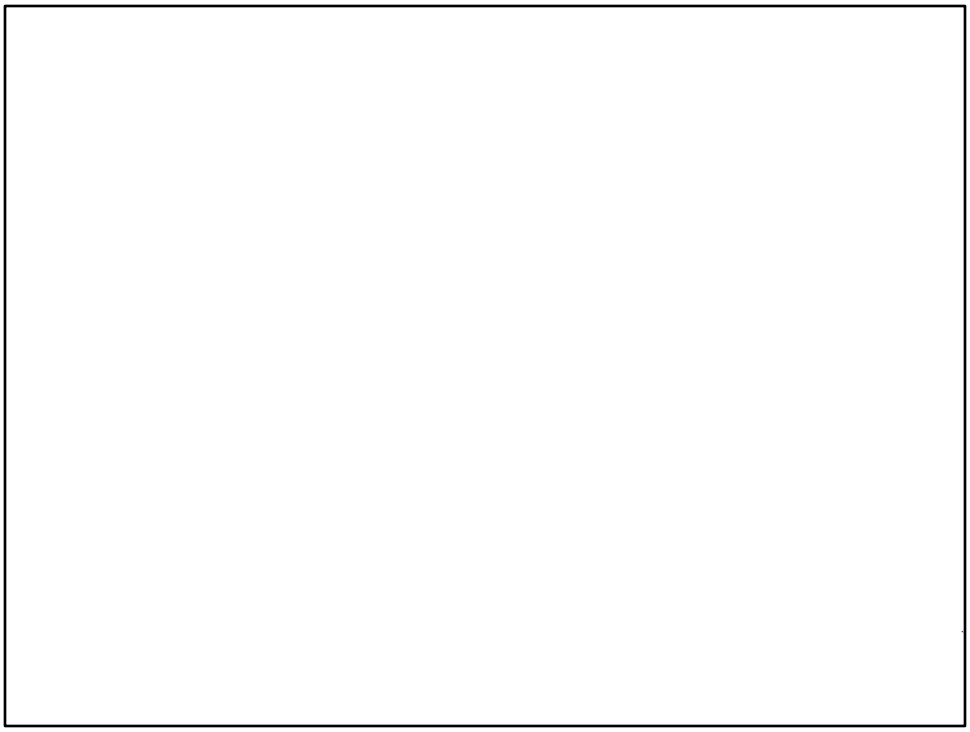
Lets watch the pump expression video, that will appear with the next click



This slide has the pump expression video embedded

Manual Vs Electric Pumps

- Manual pumps
  - slower, takes longer
  - hand fatigue
  - quiet

- Electric pumps
  - double pumping stimulates higher production
  - faster
  - need electricity
  - louder

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General Differences Between Manual and Electric Pumps

Manual pumps

These are slower than electric pumps, and take longer to empty the breast. The hands can become fatigued or achy.

A manual breast pump is usually quiet compared to an electric pump.

Electric pumps

Double pumping is more stimulating to milk production than manual expression on 1 side. Double pumping raises the prolactin level higher than single-side pumping.

Electric breast pumps are usually faster than manual breast pumps, since the latter are single-sided.

Electric pumps need electricity, although many newer pumps have a battery pack option. Some of the these pumps operate better with electricity than with the battery, because as the battery weakens, the suction is not as strong.

Electric breast pumps typically create more noise than manual pumps.

Factor	Suggestion
Lowest cost	Manual pump
Intermittent use for a stay-at-home parent who plans to mainly nurse	Manual pump
Primary need is to increase milk production	Double electric pump
Baby is separated from Parent; NICU	Consider renting a hospital grade electric pump*
Parent is back to work	Double electric pump
Parent bottle feeds many feedings/day	Double electric pump
No access to an electrical outlet	Manual or battery operated pump
Easy to transport	Lightweight pump in its own carrying case

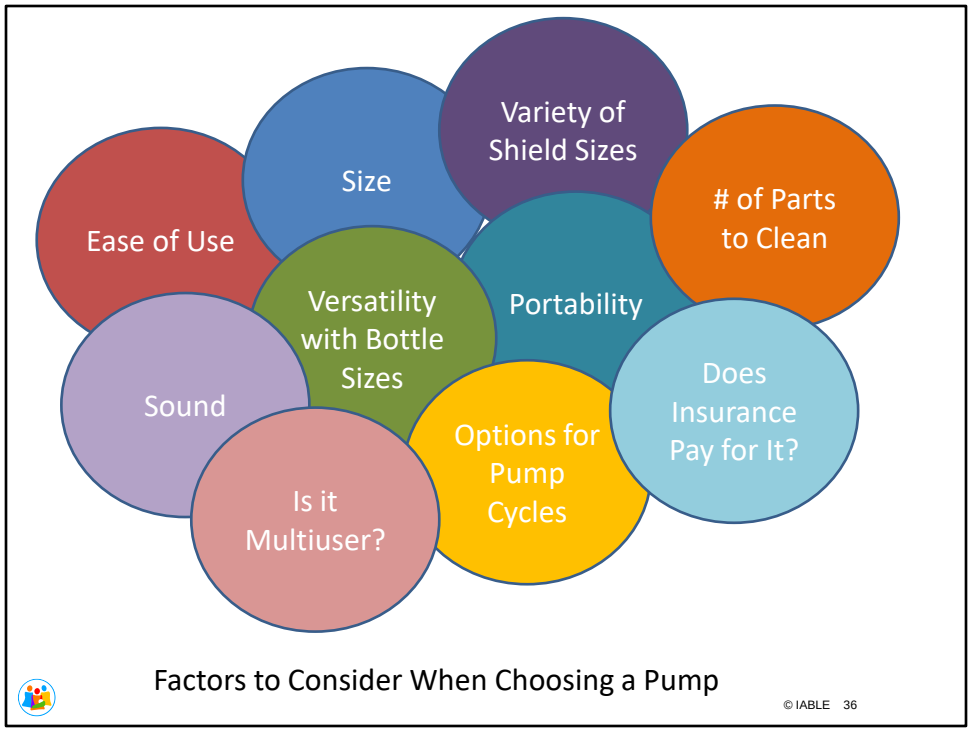
© IABLE 35

This chart describes factors for a family to consider when choosing what breast pump to purchase.

The chart is self-explanatory

The * for the factor *'Baby is separated from Mom, ie NICU'* follows the term *'hospital grade electric pump'.*

The * is present to clarify the fact that there is not an FDA definition of a 'hospital grade electric pump'. These tend to be multi-use pumps that are more expensive. The manufacturers design, market and sell them as hospital grade without meeting any specific definition.



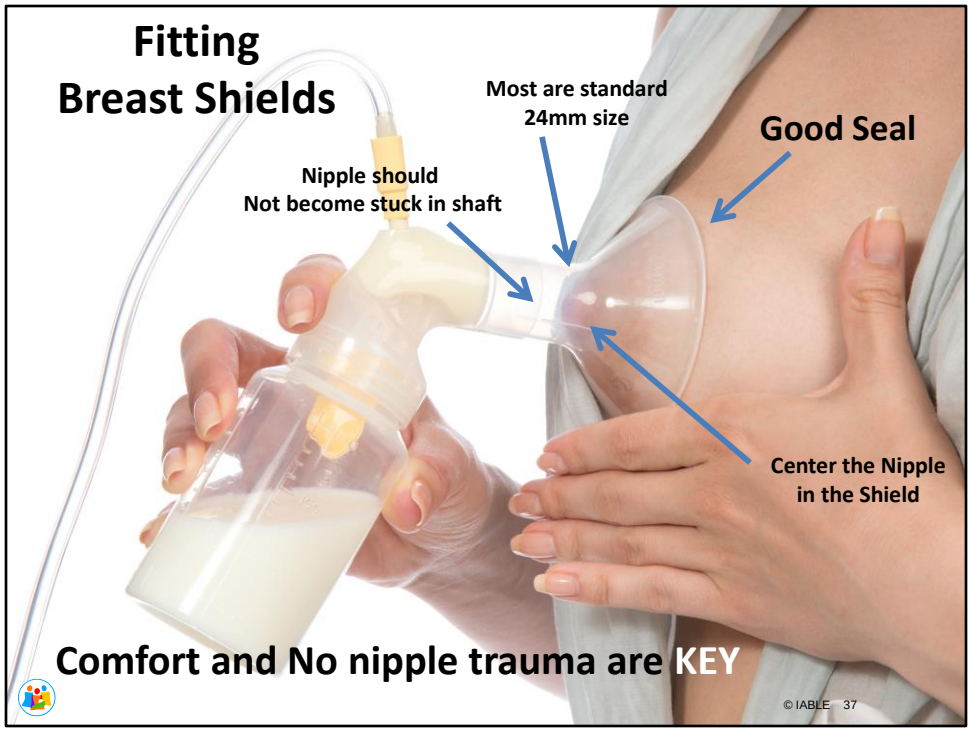
Other Factors in Choosing an Electric Pump- each circle blows in with each click
A large % of families choosing a pump will purchase an electric breast pump. Here are some factors in distinguishing between them:
Cost
The electric pumps vary in terms of cost. Sometimes there is a difference in cost depending on the country from where the pumps are purchased.
Easy-to-use instructions
Often a pump is not returnable. Try to purchase a pump from a store that allows you to look at the manual, touch the pump, and look at the parts.
# of parts to clean- This is one factor some parents look for, knowing that they might not have much time to wash parts on their breaks
Easy to find extra parts?- they may live in a region where there are few resources to buy pump parts, and they don't like to shop online
Portable?- the pump may need to be carried around all day
Sound- is it loud?
Size- is the pump going to fit in their bag, or be easy to carry around
Portability- if the pump needs to be carried around all day, a lightweight and/or small pump with fewer parts may be preferred
Versatility with other bottles- some people have a set of bottles, but the bottles don't fit with the pump
Find out if her insurance will cover a pump
Rental may be covered when baby in NICU. According to the US Affordable Care Act,

insurance companies are to cover lactation visits and pumps with no deductible. The rules are not very specific, so companies differ regarding what they pay for, and when parents may purchase the pumps. Some companies provide low quality hand pumps, whereas others pay for high quality electric pumps. Some give a $ voucher and ask the family to use the $ towards the pump of their choice.

Options for pump cycles- some pumps have just one options for pump cycle which is very long, and can cause pain during pumping. Parents with a lower production usually prefer shorter cycles

Multi-user pump? Some are not.

Some electric pumps are not designed for more than 1 user. Many of the newer pumps are multi-user. In order for a pump to be multi-user, the pump should not be at risk for transferring germs from one person to another. If the pump's filter come into contact with the milk, and the filter cannot be changed from use to user, germs can be transmitted between users.



Fitting Breast Shields

Important- The following titles in bold will appear with each click

Most pumps come with a standard 24 mm shield

However, many parents need a larger size, and a few need a smaller size.

A few pumps now come with both a 24mm and a 27mm shield. Many parents need a 27mm shield.

Nipples and breasts come in all sorts of shapes and sizes, so breast shields need to be fitted.

Nipple should not become 'stuck' in shaft

The nipple should move into the shaft of the shield and back out again with no significant friction, trauma or pain to the nipple. Point out what you mean by this

Good seal

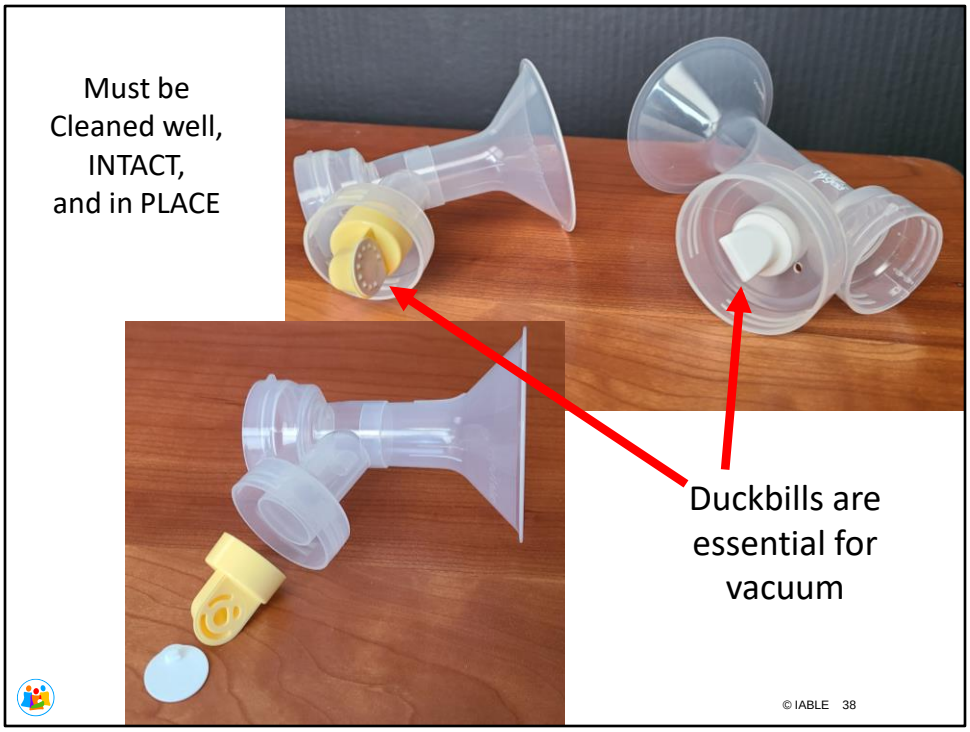
Sometimes the portion of the shield that lies against the breast is ill-fitting, and does not allow for a vacuum. If air leaks thru, a vacuum won't be created, causing insufficient emptying.

Nipple is centered in the shield

Centering the nipple in the shield helps to decrease nipple trauma, and helps to empty the breast better.

Comfort and No nipple trauma are extremely important

The parent should feel that the nipple shield is comfortable. The parent should not experience sores, pain, cracks, or other trauma from the nipple shield.



Point out that if a parent does not notice any milk being removed, check the duck bill to make sure it is not torn or gaping open. They are essential in creating the vacuum, which draws the milk into the bottles.
IF they are not cleaned properly, milk fat and build up on them, and cause them to not open properly to let milk spill into the bottle.

Flange Video

© IABLE

The flange video is embedded in this slide

Steps When Using a Pump

Wash hands with soap and water

Usually there is no need to wash breast

Use clean pump parts. We will talk about cleaning pump parts shortly.

Assemble pump parts

Find a comfortable place to pump

Supportive chair for parent

Surface for the pump, that is near an electrical outlet

Adequate lighting

We will talk re tips to enhance let-down in a few minutes

Other Pumping Tips

- Hands-free system
- Start w/low suction or stimulation phase
- Increase to highest comfortable vacuum
- Manual expression during or after pumping as needed

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Other Pumping Tips

Consider a hands- free system

A hands-free bra, either purchased or made from a sports bra, is very helpful. This allows the parent to add manual compression. It also allows the parent to do other tasks while pumping, rather than focusing on milk expression.

Start on low suction and/or stimulation phase

Parents often find that this helps to reduce nipple pain, and will bring their let-downs faster. Some parents will use this phase after the first letdown to stimulate the next letdown

Increase to highest comfortable vacuum

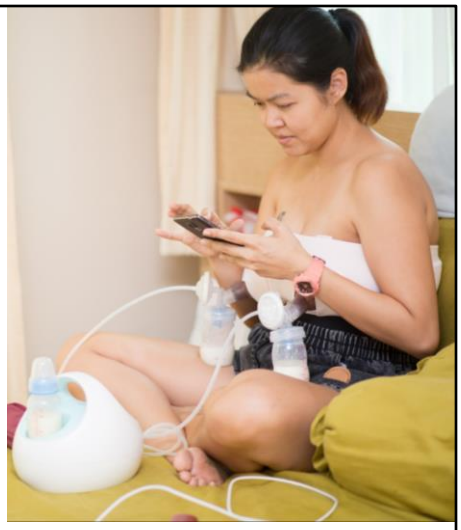
Some parents do not learn to increase the pump vacuum to the highest tolerable level of suction in order to fully empty the breast. This increases the risk of insufficient milk production.

Add on manual expression during and/or after pumping, as needed.

Sometimes parents find that they have more complete emptying if they add manual expression. A good fitting pump at proper pressures should be sufficient to avoid needing to manually express. Parents with a high milk production may not need to add manual expression, since they may not be pumping to complete emptying.

Freq/Duration of Pumping

- Pump every 3 hours
- Average duration = 12-20 minutes
- Average session = 2-3 let-downs
- High production
  - limit volume expressed
- IF pumping takes 25+ minutes, check flange size and vacuum setting



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Freq/Duration of Pumping

Most parents are encouraged to pump every 3 hours when they first return to work. As time goes on, after 6 months, they may be able to pump less often

Average is 12-20 minutes double pumping

Finish pumping after 2-3 let-downs

Some parents become confused about how long to pump because their milk will continue to flow as long as they continue to pump. We know that milk production is like an assembly line. Milk is manufactured constantly, and the rate of droplets is dependent on milk production, whether high or low. Parents with high milk production don't see the slow down in expression like parents who have an average milk production. A good rule of thumb is to instruct parents to pump thru 2-3 let-downs. A let-down is identified as a larger-volume, more forceful milk flow that will last for a few-several minutes, before flow tapers off again. Another way to guide parents is to instruct them to express milk until they reach the volume needed.

High Production

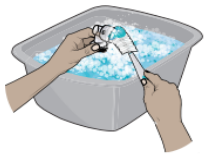
Parents with a high production might be able to express 10 or more ounces every 3-4 hours. Knowing that the baby only takes 4-5 ounces at a feeding, the parent should be instructed to gradually reduce the amount expressed to avoid over stimulation of milk production.

IF pumping takes 25+ minutes, check flange size and vacuum setting- there is likely something that can be corrected to make pumping for efficient.

CDC Guidelines for Cleaning Pump Parts

Clean Pump Kit

CLEAN BY HAND



Place pump parts in a clean wash basin used only for infant feeding items. **Do not place pump parts directly in the sink!**

Add soap and hot water to basin.

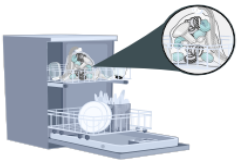
Scrub items using a clean brush used only for infant feeding items.

Rinse by holding items under running water, or by submerging in fresh water in a separate basin.

Air-dry thoroughly. Place pump parts, wash basin, and bottle brush on a clean, unused dish towel or paper towel in an area protected from dirt and dust. Do not use a dish towel to rub or pat items dry!

Clean wash basin and bottle brush. Rinse them well and allow them to air-dry after each use. Wash them by hand or in a dishwasher at least every few days.

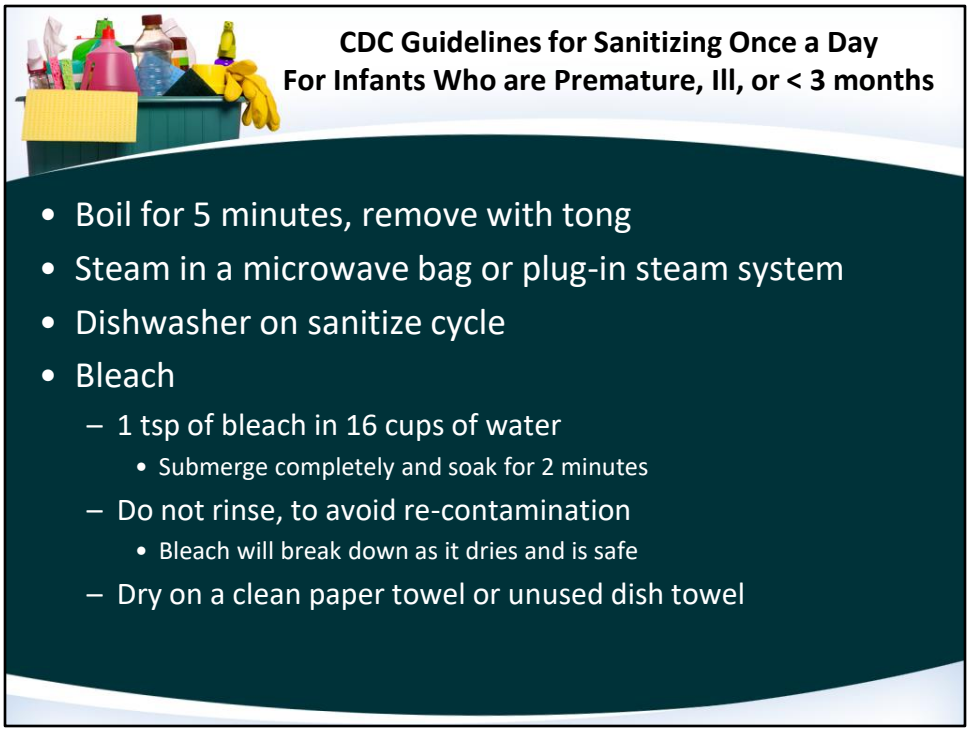
OR CLEAN IN DISHWASHER



Clean pump parts in a dishwasher, if they are dishwasher-safe. Be sure to place small items into a closed-top basket or mesh laundry bag. Add soap and, if possible, **run the dishwasher using hot water and a heated drying cycle (or sanitizing setting).**

Remove from dishwasher with clean hands. If items are not completely dry, place items on a clean, unused dish towel or paper towel to air-dry thoroughly before storing. Do not use a dish towel to rub or pat items dry!

This chart is from the CDC on how to clean the pump kit. Point out to the attendees that they recommend a separate basin for washing, and not putting the pieces into the sink.
Review the points in this guideline



Sanitizing the pump parts is important when the infant is premature, ill, or less than 3 months of age. In these situations, it is recommended to sanitize once a day. This can be done via boiling parts for 5 minutes, steaming in a microwave bag, using the sanitize cycle of the dishwasher, or bleaching parts for 2 minutes. Please explain these options

Milk Storage Containers

- Hard plastic bottles
  - BPA- free
- Glass bottles
- BM storage bags
  - Protect with added bag
  - Avoid food-grade freezer bags
- Wash bottles in hot soapy water or dishwasher

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Milk Storage Containers

Options for milk storage include the following:

Hard plastic bottles

BPA- free

Glass bottles

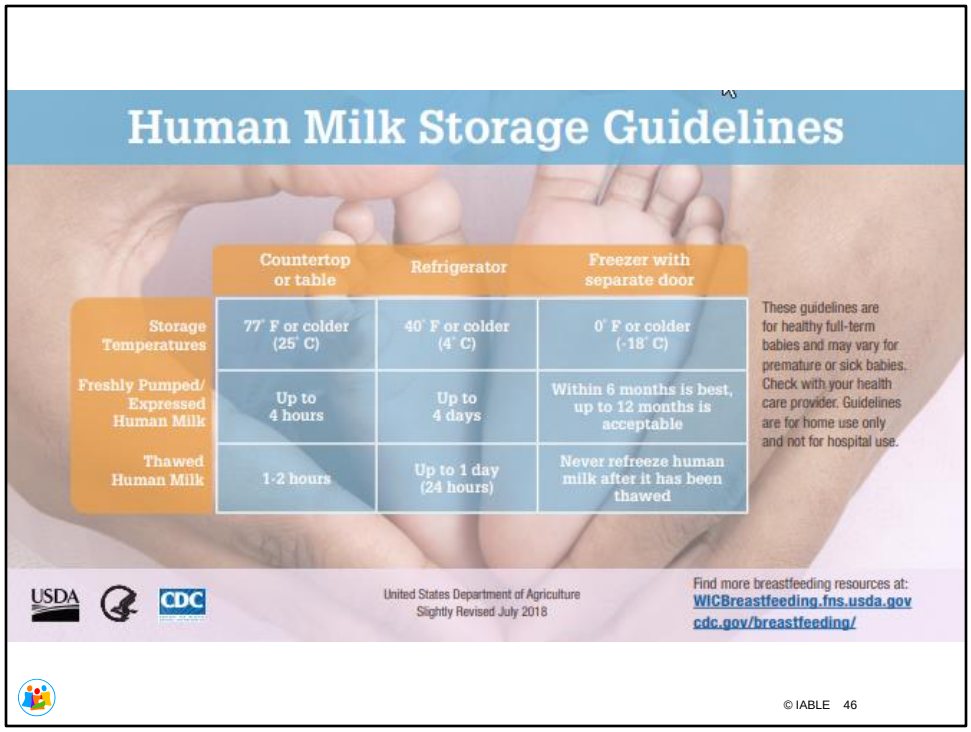
Sturdy plastic bags for BM storage

Use plastic bags that are designated for breastmilk storage. These are thicker, less likely to become contaminated

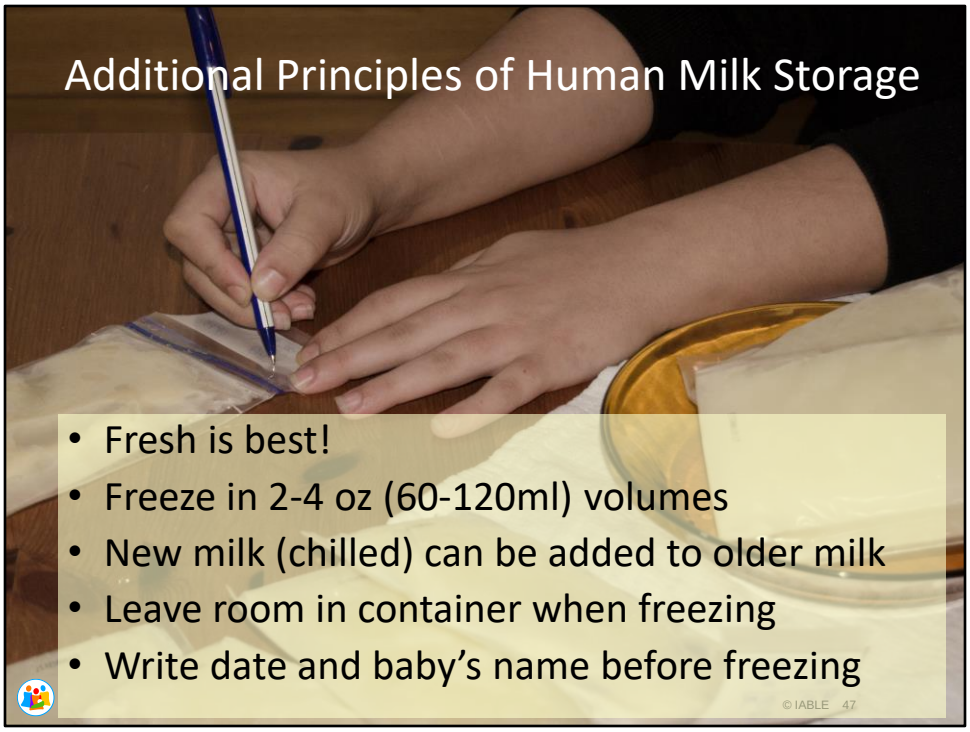
Protect with added bag. This helps to avoid punctures in the freezer. Also, when the milk is thawed, any microtears in the bag will leak.

Standard freezer bags at higher risk tears/leaks, higher contamination

Wash bottles in hot soapy water or dishwasher before use.



This is a chart from The Center for Disease Control, July 2018
Point out the following:
Cooler bag is no longer in the chart, since there is very little evidence regarding storage in a cooler bag
Refrigerator- 4 days in the refrigerator is optimal. It can go right to the freezer after the 4th day.
Freezer- Try to keep the milk deep in the back of the freezer to prevent periodic defrosting with frequent opening/closing of freezer. There is no longer a separate recommendation for a freezer with a separate door from the refrigerator, and a deep freezer, since the temps are quite similar. There are no studies looking at the difference in storage between the 2 slightly different temperatures of these freezers.



Additional Principles of Human Milk Storage

Fresh is best!

Encourage moms to give fresh refrigerated milk rather than frozen.

Freeze in 2-4 ounce (60-120ml) increments to reduce waste.

Parents can add new milk to a container of frozen milk. The new milk should be cooled in the refrigerator first before adding to the already-frozen milk.

Leave room in container when freezing- This allow room for expansion of milk when freezing

Write date and baby's name before freezing- it is very hard to label a container once it is frozen. The baby's name and date are especially important for daycare.

Using Expressed Milk

Fresh

Heat in warm water

Frozen

Defrost in a warm water bath or overnight in refrigerator

Use within 24 hours after thawed, according to CDC and USDA guidelines

Use within a few hours after it is warmed

Never reheat in a microwave!! A microwave will create dangerous hot spots. In addition, the microwave alters proteins in the milk.

Toss or Donate Stored Milk?

- Reasons to not use stored milk:
  - Baby is allergic to a substance in parent's milk, e.g. food or medication
- Milk can be donated
- Very rare need to toss milk from a yeast or bacterial infection

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Toss or Donate Stored Milk?

Reasons to not use stored milk:

Baby is allergic to a substance in parent's milk, e.g. food or medication

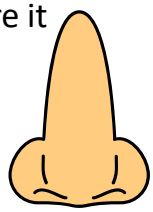
Often milk can be donated

Very rare need to toss milk from a yeast or bacterial infection

This might be an issue for an very ill, immunocompromised baby. Most parents with a 'yeast infection' don't have yeast. The bacteria associated with mastitis that is in the stored milk is detoxified in the baby's gut, so is generally safe for the baby.

All Stored Breastmilk has a Smell

- Due to an enzyme lipase breaking up the fat in the milk.
  - Not due to excessive lipase
  - Keep the bottle/bag airtight to decrease odor
- The longer it is stored in frig or freezer, the more it smells
  - Fresh milk is the least smelly
- Scalding milk is NOT recommended
  - Scalding destroys milk properties
- Most babies don't care about the smell
  - We eat stinky foods- cheese, fish, eggs, cooked broccoli/cauliflower



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Due to an enzyme lipase breaking up the fat in the milk. Everyone has this enzyme!!
The enzyme is meant to help the baby digest the milk in the stomach

Not due to excessive lipase- this is a major misunderstanding.

Keep the bottle/bag airtight to decrease odor

The longer it is stored in frig or freezer, the more it smells (the more the milk breaks down)

Fresh milk is the least smelly

Scalding milk is NOT recommended

Scalding destroys milk properties

Most babies don't care about the smell

Think about the stinky things you eat- cheese, fish, eggs, cooked broccoli/cauliflower

Source: US Breastfeeding Committee

Return to Work

- Discuss lactation needs with employer
  - Longer lunch times to nurse the baby
  - Altered work schedule
  - Part time work the first few weeks
- Find a supportive daycare
  - Many states have toolkits for breastfeeding-friendly daycare centers (WI, RI, MN, CO, etc)

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Return to Work

Discuss lactation needs with employer

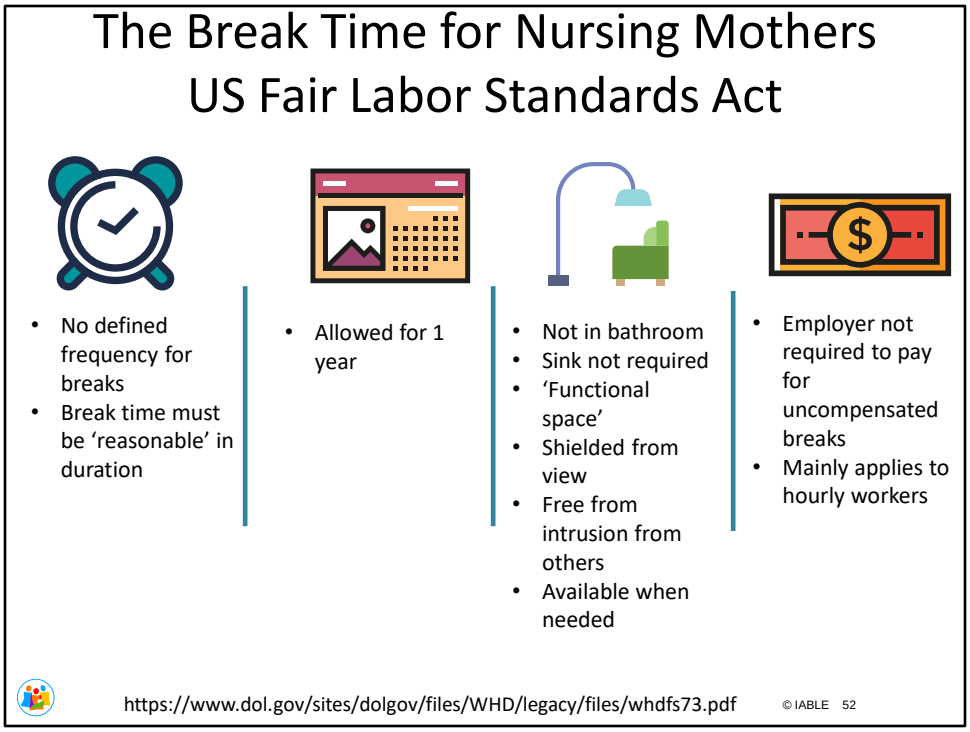
Longer lunch times to nurse the baby, Altered work schedule, Part time work the first few weeks.

Find a supportive daycare

Parents are encouraged to ask daycares when interviewing, about their experience and attitude about giving babies breastmilk. Not all are supportive. There are many states that have toolkits for childcare centers to be breastfeeding friendly. A few states have these on the web, and are listed in the slide.

Share the Break Time for Nursing Mothers Law

A copy of this US law is in the appendix of the curriculum booklet. Not all employers know about this law, so mothers are encouraged to share the law with the human resources department at work.



Share the Break Time for Nursing Mothers Law

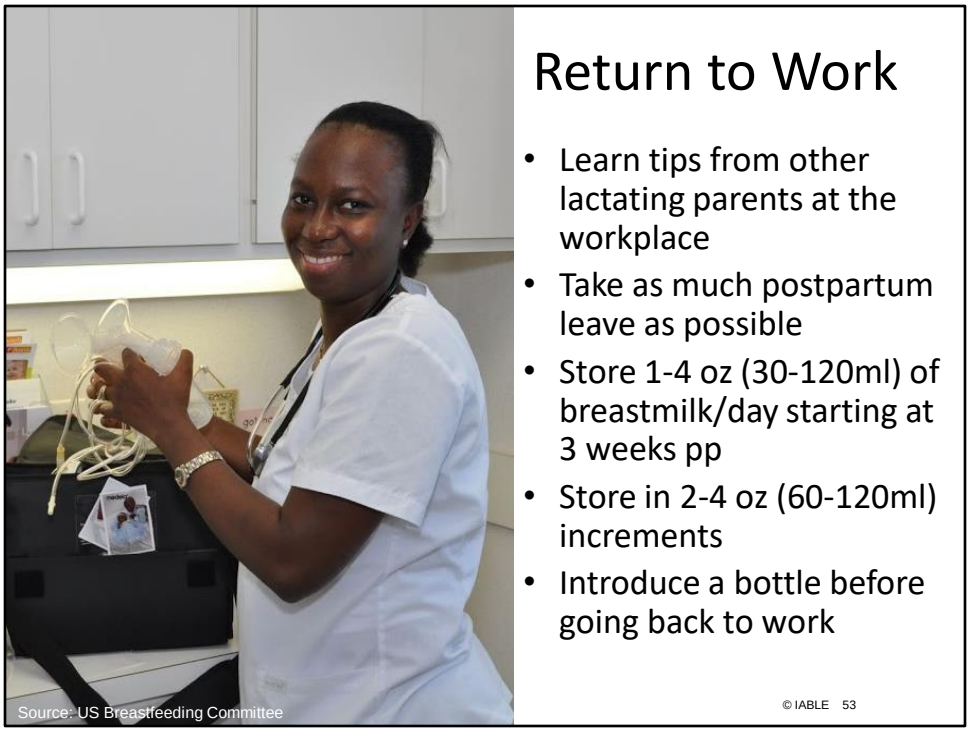
A copy of this US law is in the appendix of the curriculum booklet. Employers should know this this law, so mothers are encouraged to share the law with the human resources department at work.

Time- the law does not specify the # of breaks that are allowed, but rather states that the breaks should be allowed as per the individual's needs, for a reasonable amount of time

Duration- this applies to the first year of lactation.

Location- a bathroom is not allowed. The room does not require a sink. It needs to be a functional space for milk expression or nursing, free from view of others and not at risk for intrusion from coworkers or the public. It also needs to be available when needed

$- the employer is not required to pay for the lactation breaks, but workers can using their compensated breaks for lactation. This law mainly applies to hourly workers, but the law encourages employers to accommodate salaried workers as well.



Return to Work

Learn tips from other moms at the worksite

Encourage lactating parents to find out tricks/tips from other parents who have successfully pumping at their place of work

Take as much maternity leave as possible.

Once the babies are 3 months, they are often taking at least one 5 hour break at night, so lactating parents are more rested and ready for work

Store 1-4 oz of breastmilk a day starting at 3 weeks pp

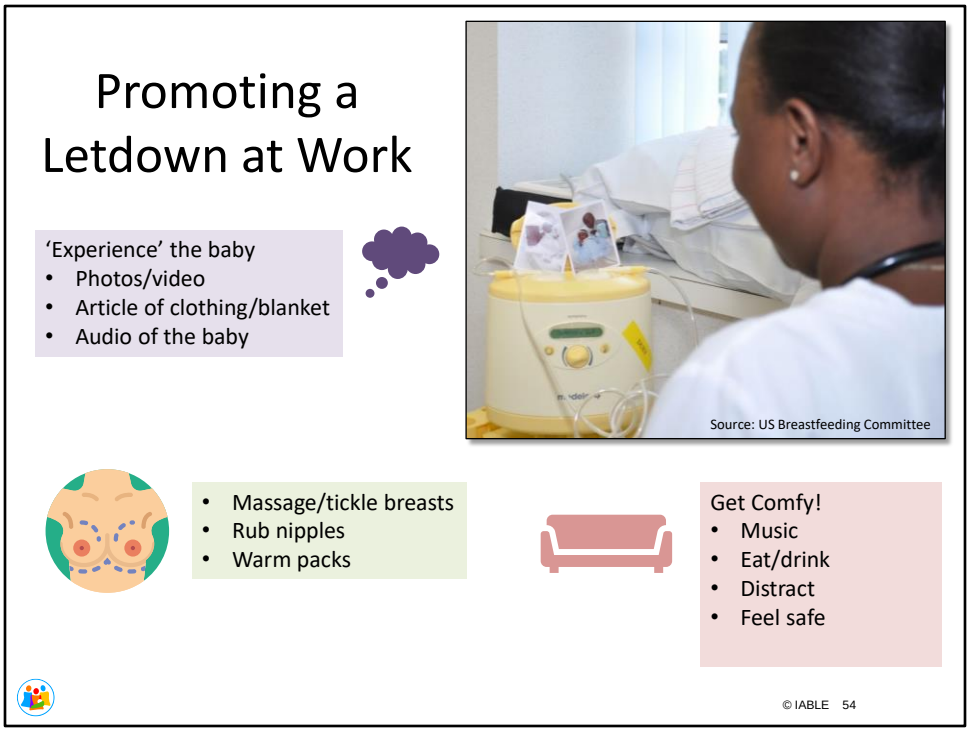
A good way to start storing milk for work is to pump after the first 2 feedings in the am, when production is the highest. If parents just expresses an extra 1-2 ounces after each of those feeds, they will end up storing about 1-4 ounces a day for at least 1-2 months. They will have plenty in the freezer by the time they go back to work. A freezer full of milk is not needed to go back to work, just enough for the first day.

Store in 2-4 oz increments

Explain to parents that the babies will take 2-4 oz in a bottle, usually closer to 4 ounces. The 2 oz volumes can be used to satisfy a hungry baby who is waiting for the parent to pick him up.

Introduce a bottle before going back to work

A good time to introduce a bottle is about 3 weeks postpartum. Have another parent/caregiver give the bottle. If done once a day several days a week, the baby should be fine with bottle feeding when the lactating parent goes back to work.



Promoting a Letdown at Work

Think about the baby

Audiovisual stimulation such as photos, an audio recording, or video help to stimulate the oxytocin release.

A baby blanket or article of clothing to feel/smell will help letdown

Get comfy!

Secure spot that won't be interrupted, and try not to think re the stress of work!

Use music for mood/relaxation. Or, treat oneself to a favorite snack, beverage, or a meal

Massage the breasts/rub nipples to promote letdown, can also try warm packs

Conclusions Session 7

- Pump selection is based on individual needs
- Parents often need guidance on proper breast shield (flange) size
- Offer counseling to parents on human milk storage for work
- Parents often need guidance and preparation for going back to work while lactating.

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Read these as the conclusion