

**THE PROFICIENT PUMPER**

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**DISCLOSURES**

I have written a book *Breastfeeding Without Birthing* and receive royalties on its sales.

I co-host a podcast  *OUTSIDE THE NIP*. Sponsors cover some costs.

I host an online course *Lactation Creation* and receive profits from its sales.

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**INCLUSIVE LANGUAGE**

I am aware that there are many ways to be and become a family. As part of that, I understand that not every nursing parent identifies as "mother". I have attempted to be inclusive in my language to the best of my ability. Please don't hesitate to kindly let me know how I may do better.

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## INCLUSIVE LANGUAGE

I am also aware that most of my photos do not represent the wide diversity of nursing parents. I am always working towards broadening representation in my photos, and realize I have a long way to go.



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## PRESENTATION OVERVIEW

- Why use a breast pump
- Alternatives to pumping
- Selecting a breast pump
- Caring for a breast pump
- Breast pump comfort
- Breast pump output



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## WHY USE A BREAST PUMP?



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### WHY PUMP?

#### Separation from baby

- Work
- School
- Hospitalization of nursing parent or baby
- Divorce/separation
- Travel

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### WHY PUMP?

#### Non-latching baby

- Temporarily until baby breastfeeds
- Permanently bottle-feeding expressed milk

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### WHY PUMP?

#### Increase Milk Production

- After breastfeeding
- Between breastfeeding sessions
- At missed breastfeeding

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## WHY PUMP?

### Relactation by a Birthing Parent

- Health needs for baby
- Baby not tolerating formula
- Resume the breastfeeding relationship
- Temporary weaning necessitated by illness or medication in mother

AP014 (2014) 10, 16-20

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## WHY PUMP?

### Induced Lactation or Relactation by a Non-Birthing Parent

- Adoption
- Surrogacy
- Foster care
- Co-nursing
- Trans woman

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## WHY PUMP?

### Empty Breasts that are Too Full

- Engorgement
- Recurrent mastitis
- Poor milk transfer by baby

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## WHY PUMP?

### Maintain Milk Production

- Parent temporarily taking a medication incompatible with breastfeeding
- Parent allows severely damaged nipples to heal

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## ALTERNATIVES TO PUMPING



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## ALTERNATIVES TO PUMPING

### Hand Expression

- For many parents, hand expression is more effective than pumping colostrum
- Some parents can express more effectively by hand
- Back up if breast pump breaks or electricity goes out
- Improves long term breastfeeding outcomes
- Does not require special equipment. Minimal set-up and clean-up time.
- Used in combination with a breast pump



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### ALTERNATIVES TO PUMPING

#### At-breast Supplementation

- Converts "triple feeding" (breastfeeding, bottle-feeding, pumping) into single feeding



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### ALTERNATIVES TO PUMPING

If milk production is low, parent may supplement with another mother's milk or infant formula rather than her own.



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### ALTERNATIVES TO PUMPING

If medication not compatible, parent may consider whether alternative medication is available.



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**SELECTING A BREAST PUMP?**

*Parents have different needs.*



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**SELECTING A BREAST PUMP**

Types of breast pumps

Single versus Double  
Manual versus Electric  
Commercial-grade versus Insurance-grade  
Personal-use versus Hospital-grade\*

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**SELECTING A BREAST PUMP**

Types of breast pumps

\*...the term 'hospital-grade pump' is not recognized by the FDA and there is no consistent definition for this term, so individual companies could mean different things when they label their breast pumps as hospital-grade. If you are considering renting a pump, ask for references from a trusted health professional such as your doctor, your baby's doctor or a certified lactation consultant.  
<http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/HomeHealthandConsumer/ConsumerProducts/BreastPumps/ucm041862.htm>

Some other terms for hospital-grade

- Multi-user: some pumps safe for multiple users are not designed to establish/increase milk production
- Rental-grade: pump may be for sale or for rent

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### SELECTING A BREAST PUMP

Frequency of use	Single electric motor	Double electric motor
Once a week or less	Manual	
2 – 3 times per week	Single electric	
1 – 3 times per day	Double electric commercial-grade or insurance-grade	Double electric hospital-grade
More than 3 times per day	Double electric commercial-grade or insurance-grade or hospital-grade	Double electric hospital-grade

Hydrex Pump Inc. 18000  
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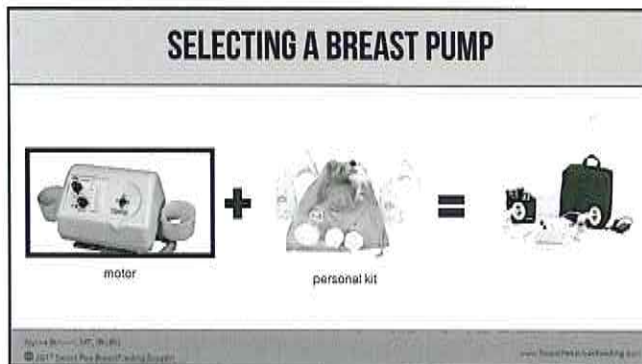
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### SELECTING A BREAST PUMP

**Motor: new or used?**

- Multi-user breast pumps are FDA approved for multiple users. They are closed systems, Designed for long-term use.
- Personal-use breast pumps are designed for a single user.
  - Motor is not designed to last
  - Viruses can be transmitted between users (open system)
  - Yeast can grow inside pump (open system)

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### SELECTING A BREAST PUMP

**Personal kit: new or used?**

- Always personal use items, whether or not pump is personal use or multi-user
- Can be sanitized
- May not be designed for extended use
- Can be purchased separately



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### SELECTING A BREAST PUMP

**Choosing a WHO Code Compliant Brand**

World Health Organization's International Code of the Marketing of Breastmilk Substitutes, aka The WHO Code

\*The primary purpose of the 'WHO-CODE' is to protect mothers and babies from the highly effective, aggressive and predatory marketing of substitutes for breastfeeding (i.e. infant formula, bottles, artificial nipples) at the most vulnerable period of their lives, the birth of a new baby.\*  
(Forbes, 2011)

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### SELECTING A BREAST PUMP

**Choosing a WHO Code Compliant Brand**

What else does this company make and market?

- Bottles
- Bottle nipples
- Infant formula
- Baby food



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## SELECTING A BREAST PUMP

Choosing a WHO Code Compliant Brand

<b>COMPLIANT</b>	<ul style="list-style-type: none"> <li>Ameda</li> <li>Hygeia</li> <li>Limerick</li> <li>Lucina</li> <li>Rumble Tuff</li> <li>Bailey Medical</li> <li>Spectra Baby USA</li> </ul>	<b>NOT COMPLIANT</b>	<ul style="list-style-type: none"> <li>Medela</li> <li>The First Years</li> <li>Phillips Avent</li> <li>Lansinoh</li> <li>Tommee Tippee</li> <li>Dr. Brown's</li> <li>Evenflo</li> </ul>
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last revised 2/20/2014 by Marsha Wexler <http://dahlstrom.com/MarketingSchoolofCostaCompliance/>  
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## SELECTING A BREAST PUMP

Questions to ask before renting a breast pump:

1. Which breast pumps do you rent?
2. What rental terms are available? (monthly, weekly, daily)
3. What is the rental fee?
4. What is the cost of the personal kit? Will the personal kit I already have be compatible?
5. How do you test your pumps between renters to ensure they are working properly? How do you clean your pumps between renters?
6. Will you show me how to use the breast pump?
7. Do you carry various sizes and styles of flanges, and can you help fit me with the appropriate flanges?
8. What happens if I have any problems with or questions about the pump?

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## CARING FOR A BREAST PUMP

*Care, cleaning, and maintenance*



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### CARING FOR A BREAST PUMP

Caring for breast pump parts

**STERILIZING**

Removes all microorganisms

Pump parts cannot be sterilized at home, even with boiling (PDA, 2013)

**SANITIZING**

Removes most microorganisms

Pump parts can be sterilized at home

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### CARING FOR A BREAST PUMP

For healthy, full-term babies:

**When to sanitize:** Before first use

**When to wash then sanitize:** Between users • Recurrent thrush: boil 20 minutes once per day (MAYHEW, 2016) • Infections?



**When to wash:** Rinse after each pumping session during the day, and then wash at the end of the day (WIKINGER et al, 2015) • Wipe with clean paper towel or tissue and store in refrigerator or cooler during the day, and then wash at the end of the day (WIGGAN, 2005)

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### CARING FOR A BREAST PUMP

**How to sanitize:**

- Place parts in clean pot lined with a towel
- Fill with water to cover parts
- Bring to boil and continue boiling for 5-15 minutes
- Air dry covered with a clean towel



[Chiu, 2012]

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### CARING FOR A BREAST PUMP

**How to wash:**

- Hot, soapy water
- Rinse hot water
- Place on clean towel
- Air dry covered with a clean towel



[Chiu, 2012]

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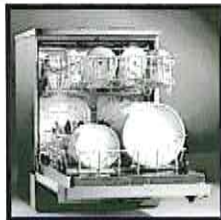
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### CARING FOR A BREAST PUMP

**Note:** Dishwasher and microwave "sterilization" bags will shorten the life of breast pump parts.



[Chiu, 2012]

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### CARING FOR A BREAST PUMP

**Breast pump maintenance**

Know the warranty

Replace parts that may wear out

- Membrane (Medela, Hygeia)
- Valves (Ameda, Hygeia)
- Gasket (Limerick)

Check suction

- Level to at least -200mm Hg
- Smooth cycling

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**BREAST PUMP COMFORT**



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**BREAST PUMP COMFORT**

**Breast pump settings**

Does the pump allow user to adjust suction and cycle?  
 Are there fixed or continuous settings?  
 Is there a let-down phase and an expression phase?

**Cycle:** speed/frequency of cycling  
**Vacuum:** level of suction  
 Adjust these to your comfort.



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**BREAST PUMP COMFORT**

**Flange fit**

**Flange size:** Nipple/areola should not rub along the tunnel of the flange. Kink in flange should connect about 1/2 inch from the base of the nipple.



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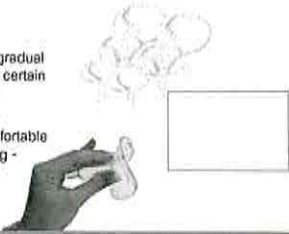
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## BREAST PUMP COMFORT

**Flange fit**

*Flange style:* An angled flange with a gradual transition between cup and tunnel may fit certain breast shapes better. (eg - Pumpin' Pals)

A soft, flexible flange may feel more comfortable and "more like baby" for some parents (eg - Limerick)



Applied Behavior, MA, BCSP  
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## BREAST PUMP COMFORT

**Lubrication**

Use a non-tacky nipple cream (not lanolin), olive oil, or coconut oil on areola to improve pump comfort.



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## BREAST PUMP CONVENIENCE

*Making pumping as easy as possible*



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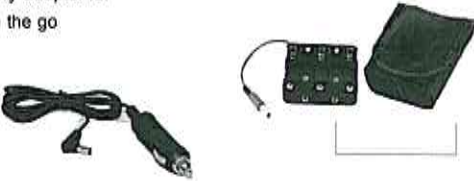
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### BREAST PUMP CONVENIENCE

Car or battery adapter for pumping on the go



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### BREAST PUMP CONVENIENCE


**Hands-free**



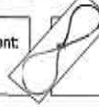
Hands-free pump design:  
Medela Freestyle, Freemix



Hands free bustier: Easy Expressions, MYO



Hands free kit attachment:  
Pumpin Pals, Limerick



Homemade versions: sports bra, elastic hair band

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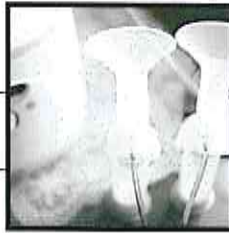
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### BREAST PUMP OUTPUT

*Expressing as much milk as needed*



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### BREAST PUMP OUTPUT

When a parent chooses the right breast pump and optimizes comfort, breast pump output is likely to be optimized as well:

- Choosing the right breast pump
- Flanges fit
- Breast pump cycle and suction settings

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### BREAST PUMP OUTPUT

Pumping frequency determines output:

**Established Milk Production**  
Start with every 2-3 hours.  
If sufficient output, increase time between pumping

**Building milk production**  
After or between feedings  
*Power Pumping:* breastfeeding and pumping (Genna, 2008)  
*Pumping Holiday:* exclusively pumping

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### BREAST PUMP OUTPUT

**Boost with Power Pumping**

Power Pumping mimics the frequency days when babies breastfeed more often than normal during a growth spurt in order to increase their parent's milk production. Nursing parent places breast pump in a location that she passes by frequently throughout the day. Then, each time she passes by the pump or has a few minutes, she pumps for five to ten minutes. She can pump as frequently as every 45 minutes. Power pump for just a few days at a time. Days when both nursing parent and her partner are home or when extra help is available are good choices.

(Genna, 2008)

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## BREAST PUMP OUTPUT

### Boost with Pumping Holiday

When nursing parent is off work for a couple of days, she can spend those days doing nothing except eating healthy high-fiber foods; drinking water, juice, or herbal tea; doing relaxing sedentary activities such as watching TV, watching movies or reading; and **of course** pumping. During waking hours on those days, she pumps until she cannot get any more milk from the pump, rests for 30 to 60 minutes, and then pumps again.

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## BREAST PUMP OUTPUT

### Hands-On Pumping

Using manual techniques in combination with pumping results in greater output than pumping on its own.

#### Breast Massage

- Massage breasts to elicit a milk ejection before pumping or once the milk stops flowing to get a second milk ejection.
- Massage breasts while pumping, either by pumping one breast at a time or by using a hands-free device.

[Minkin, 2009]

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## BREAST PUMP OUTPUT

### Hands On Pumping

Using manual techniques in combination with pumping results in greater output than pumping on its own.

#### Hand expression

- After pumping, tip the flange to make a funnel for hand expressing into.

[Minkin, 2009]

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### BREAST PUMP OUTPUT

#### Oxytocin Boost

Oxytocin is the hormone responsible for milk release (let-down).

Receiving a massage can boost a nursing parent's oxytocin levels. She can receive a massage between her shoulder blades, on her feet, or wherever while she is pumping.

Laughter and feelings of romance also increase oxytocin. Being with partner, reading a romance novel, or watching a rom-com can all help.

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### BREAST PUMP OUTPUT

#### Support flow

Nursing parent can help the milk to let-down by placing a warm compress on her breasts/chest before or during pumping:

- Warm, moist washcloth
- Rice pillow heated in the microwave.



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### BREAST PUMP OUTPUT

#### Adjust Attitude

- Collect in smaller containers, such as Snappies
- Look at percentage increase rather than volume.

For example, if output from a pumping session increases from 10ml to 20ml, don't think of it as an increase of only 10ml, think of it as doubling your output!



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### BREAST PUMP OUTPUT

#### Use the Mind

Sensory inputs can also help trigger the milk to flow:

- look at a picture of baby
- sit in the nursery (if baby has not arrived yet)
- smell something that reminds parent of baby
- listen to lullabies or a recording of baby...



Distraction: reading, watching TV, talking on the phone, covering flanges with a blanket

Relaxation and hypnosis techniques

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### BREAST PUMP OUTPUT



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## MY CONTACT INFORMATION

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Make breastfeeding  
more like bottle-feeding

[www.Breastfeeding.com](http://www.Breastfeeding.com)

Home to both the Breastfeeding Outside the Box podcast [www.BreastfeedingOutsideTheBox.com](http://www.BreastfeedingOutsideTheBox.com)

and the resource page for Breastfeeding Without Birthing [www.BreastfeedingWithoutBirthing.com](http://www.BreastfeedingWithoutBirthing.com)



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