

## Breast Pumps

If you choose to express breastmilk using a breast pump, choices of types of pumps and prices can be overwhelming. This guide provides information on types of breast pump and what to consider when choosing a breast pump.

### Types of pumps

#### *Single vs Multi user*

- **Single user:** many pumps you buy on the High Street are open system pumps which means they should not be bought or sold second hand or loaned to people.
- **Multi user:** these are closed system pumps, they can in theory be used by several people.

Pumps are also **single** or **double**, pumping both breasts at the same time is more effective and saves time.

#### *Non-electric Pumps*

- **Silicone bulb:** this is a simple design. Some mothers find that they work well for them; they can suction them on quite firmly, lean forward and gently massage their breast and achieve an impressive portion of milk. Others get very little milk with them. They can be well suited if you just want to release some pressure from your breast without needing to maximise how much you get out. They are easy to clean.
- **Manual pump:** This is a simple non-electric pump with a lever. You have to actively hold it to your breast and pump the lever with your hand to get the milk out. They cost less than electric pumps and are light to transport and easy to assemble.

#### *Electric Pumps*

- **'Hospital grade':** beware this doesn't mean anything, there are no guidelines for this phrase! The most powerful breast pumps are rented, double electric pumps but these need to be plugged to the mains, are cumbersome and expensive, so unlikely to be ideal. With this type of pump you have to actually hold it on to your body (many find they have to sit leaning slightly forward and hunch their shoulders too). Another option is investing in a special bra which holds it. If your milk supply is well established, having a very powerful pump is probably not important.
- **Wearable:** there are now lots of different wearable pumps on the market with a wide price range. Wearable pumps are designed to be quiet and have no cables or hoses. You can wear them under your clothes because they fit in your bra. Some parents use them while they are working, or on a video call for instance, while typing or even driving. Because they are designed to be quiet they are actually not the most powerful pumps, but if your

milk supply is well established, having a very powerful pump may be less important than having a convenient pump. Some find wearable pumps move in their bra and lose seal.

- **Hybrid pumps:** Include in-bra cups plus an air hose to a separate motor. These are often more powerful than a wearable pump, louder & often more visible, but still allow hands-free activities such as typing or driving.
- **Portable:** not the same as wearable! Many pumps labelled as portable pumps, are as large as your head or so small that they can fit in your pocket. Portable means the pump can be used with batteries or charged at a plug socket then it holds the charge so you can bring it with you somewhere. With this type of pump you have to actually hold it on to your body (many people find they have to sit leaning slightly forward & hunch their shoulders too). Another option is investing in a special bra which holds it.

### What should you look for when buying a breast pump?

*How much do you want to spend?* There are some very good pumps at the lower end of the market - the most expensive are not necessarily the best.

*Can it be bought and sold second hand?* Could be a consideration if you don't plan to use it for long or can't easily afford it.

*Do you want a discreet pump? Low profile? Quiet? Can you imagine you'd be able to (and do you want to) pump and do your job at the same time?* Some mothers in our study wanted to pump during online meetings and at their desk. However, you should not feel obliged to pump whilst you want work or feel you have to. It is good practice to make sure you have the space and time needed to express breastmilk, should you need to.

*Do you plan to use it for a long time or several children?* Many pumps are only guaranteed for 1 year.

*Can you leave your pump at work? Clean it at work? Will you need to carry it from one workplace to another? Do you have access to reliable power?* Some mothers in our study left their pump (the motor/body) at work and had spare sets of bottles/flanges/in-bra cups. This reduced the amount they had to transport between home and work each day and reduced the need to clean the equipment during the working day.

### Fitting your pump

At the time of writing most pumps are sold with 24mm flanges (the bit that your nipple goes into) as default but there is research<sup>1</sup> showing that a tighter fit can be more comfortable and effective. One of the authors of this research have produced a helpful guide on flange size.<sup>2</sup> Many mothers find it useful to use a set of silicone flange liners to experiment, over a few pumping sessions you'll find which size is truly comfortable and gets the most milk. If you

find the right size you might like to invest in buying a hard plastic flange in the appropriate size. Note for wearable pumps silicone flange liners are the only option.

## Maintaining your machine

*“Make friends with your pump” - Barbara Robertson IBCLC .*

It is worth putting in the time to get to know your pump including reading the instructions and getting familiar with the different settings as this can drastically change the yield. Many pumps have small parts such as duckbill valves or diaphragms which need regular replacement, flanges come in various sizes to suit, if you have borrowed a pump or obtained one second hand you may not realise this.

## References

1. Anders, L. A., Mesite Frem, J., & McCoy, T. P. (2025). Flange size matters: A comparative pilot study of the Flange FITSTM guide versus traditional sizing methods. *Journal of Human Lactation*, 41(1), 54-64.
2. <https://www.uhs.nhs.uk/Media/UHS-website-2019/Docs/Services/Maternity/The-Flange-FITS-Guide-for-optimal-comfort-efficiency-and-milk-yield.pdf>