

# Optimizing milk removal

Reaching an adequate milk production is a journey that requires mothers to initiate, build and maintain their lactation. A mother's milk supply will increase during the first month of this journey.

The following information is relevant if a breast pump is being used after milk has "come in" (initiation), to build and maintain lactation.

## 2-Phase Expression

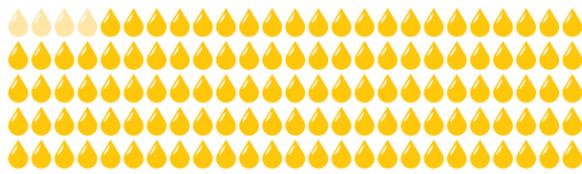
2-Phase Expression technology mimics the infant's natural sucking behaviour.

### Stimulation phase

When infants attach to the breast to feed, they begin with a fast suck rate to prompt milk flow. Pumping with a stimulation phase of >100 cycles/minute mimics this.

### Expression phase

Once milk flows, infants apply a slower suck rate to remove milk. Switching the pump to the slower expression phase of ~60 cycles/minute after milk ejection imitates this and supports milk removal.



Only 3.9 % of the total milk volume is removed before the first milk ejection (let down). Milk ejections facilitate the removal of the remaining 96.1 %.

- 3.9% during stimulation phase
- 96.1% during expression phase

**2-14** milk ejections in 15 min  
Some mothers need to pump longer than others due to their number of milk ejections, which determines how often and long milk flows.

**~15** minutes  
Pumping should be continued until the breast feels well-drained, soft all over and the milk stops flowing, rather than for a fixed duration.

## Double pumping (Pumping both breasts simultaneously)

Double pumping with 2-Phase Expression technology is truly advantageous for mothers.

**+1** milk ejection  
Get an additional milk ejection and therefore more milk. Double pumping averages 4.4 milk injections, single pumping 3.4.

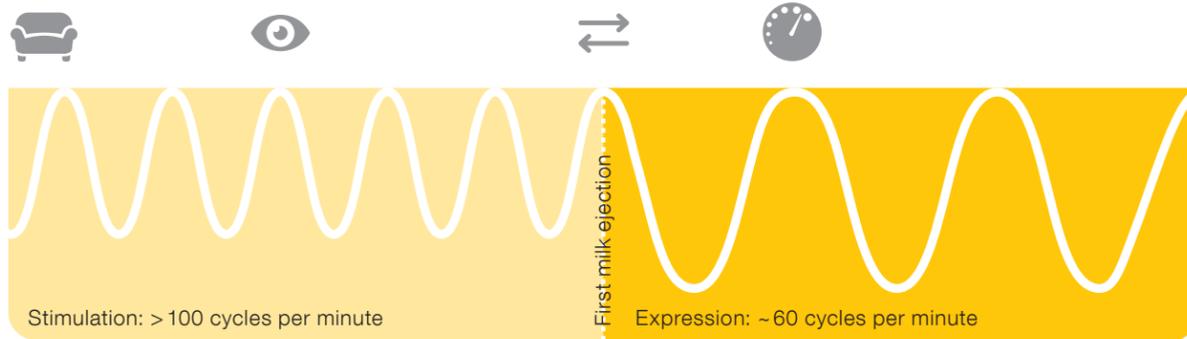
**18%** more milk  
Obtain on average 18% more milk volume when double pumping, compared to single pumping each breast.

**8.3%** fat content  
Have milk with higher energy content. The fat content of the total pumped volume is 8.3 % compared to 7.3 % for single pumping.

**2 hrs** time saving  
Save up to 2 hours per day by double pumping compared to single pumping, if exclusively pumping 8x/day.

## Tips and tricks

The following tips and tricks can be helpful for a comfortable and efficient pumping session:



**Relax**  
Being relaxed helps milk flow. Stress and adrenaline inhibit oxytocin – the key hormone for milk ejection.

**Switch**  
Switching to expression phase at first milk flow is important, as that first milk ejection provides ~36% of the volume.

**Watch**  
Many mothers do not sense milk ejection so it is essential to watch out for it. Milk ejection can be seen as the first jets of milk.

**Adjust**  
To remove more milk in less time, mothers should adjust the vacuum to the highest comfortable level in the expression phase.

### References

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