

Optimising 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.¹

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.² Pumping with a stimulation phase of >100 cycles/minute mimics this.^{3,4}

Expression phase

Once milk flows, infants apply a slower suck rate to remove milk.² Switching the pump to the slower expression phase of ~60 cycles/minute after milk ejection imitates this and supports milk removal.^{4,5}



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%.⁶

- 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.⁷

~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

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, single pumping 3.4.⁸

18%
more milk

Obtain on average 18% more milk volume when double pumping, compared to single pumping each breast.⁸

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.⁸

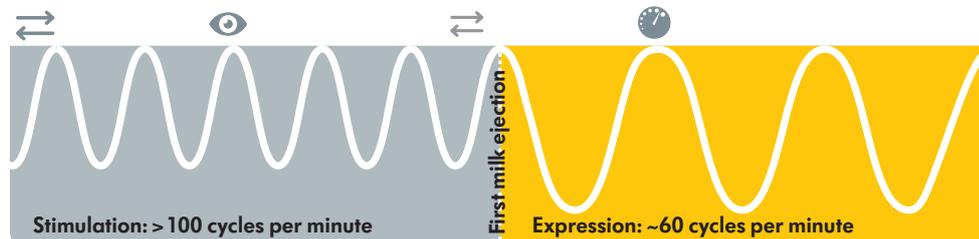
2 hrs
time saving

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.⁹



Switch

Switching to expression phase at first milk flow is important, as that first milk ejection provides ~36% of the volume.⁷



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.³



Adjust

To remove more milk in less time, mothers should adjust the vacuum to the highest comfortable level in the expression phase.⁶



A helping hand

Mothers should be taught the valuable skill of hand expressing. Breast massage before and after a pumping session helps soften firmer areas, redistribute milk and lymph and stimulate hormones to support milk flow.¹⁰ "Hands-on pumping" – using hand techniques during pumping – can help maximise the milk volumes removed.¹¹

References: 1 Kent JC et al. Pediatrics. 2006;117:e387-e395. 2 Mizuno K et al. Pediatr Res. 2006;59:728-731. 3 Kent JC et al. J Hum Lact. 2003;19:179-186. 4 Meier PP et al. Breastfeed Med. 2008;3:141-150. 5 Mitoulas L et al. J Hum Lact. 2002;18:353-360. 6 Kent JC et al. Breastfeed Med. 2008;3:11-19. 7 Prime DK et al. Breastfeed Med. 2011;6:183. 8 Prime DK et al. Breastfeed Med. 2012;7:442-447. 9 Newton M et al. J Pediatr. 1948;33:698-704. 10 Jones E et al. Arch Dis Child Fetal Neonatal. 2001;85:F91-F95. 11 Morton J et al. J Perinatol. 2009;29:757-764.