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

Some mothers need to pump longer than others due to their number of milk ejections, which determines how often and long milk flows. 7

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

2–14 milk ejections in 15 min

~15 minutes

~2 hrs

18% time saving

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. 4

18% more milk

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

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

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

Double pumping should be continued until the breast feels well-drained, soft all over and the milk stops flowing, rather than for a fixed duration.

Tips and tricks

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

Stimulation > 100 cycles per minute

Relax

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

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Adjust

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. 11 “Hands-on pumping” – using hand techniques during pumping – can help maximise the milk volumes removed. 11

References