

medela 

mother's milk,
everyday amazing™

The Symphony® system



Symphony® and PersonalFit™ PLUS: More milk when it is needed most

The Symphony® is a trusted choice in thousands of hospitals worldwide, thanks to its proven quality and reliability. By mimicking nature, its unique suction patterns support mothers to initiate, build and maintain adequate milk production over time.¹⁻³ The PersonalFit™ PLUS pump set further enhances Symphony®'s performance by improving the comfort and efficiency of each pumping session, helping mothers express more milk in the same time⁴ and delivering next-generation ease of use and simple cleaning.⁵ Together, Symphony® and PersonalFit™ PLUS optimise expression throughout the infant's hospital stay and beyond.

PersonalFit™ PLUS pump sets for Symphony®

More milk. More comfort. More efficiency.



Supporting the milk production process

The milk production process can be described as a continuum of four stages:

1 Develop

The development of breast tissue in preparation for breastfeeding, which occurs primarily during pregnancy when milk-producing cells begin to form.⁶

2 Initiate

After birth, when the nipple is stimulated by the infant sucking, the cells that developed in pregnancy are gradually 'switched on'. This, along with hormonal changes in the mother, leads to secretory activation (milk coming in) two to four days later.⁶

3 Build

Post-secretory activation, milk production starts to increase. Frequent breastfeeding over the first month builds milk supply to meet the infant's ongoing long-term requirements.⁷

4 Maintain

By the end of the first month a full milk supply is usually established, with term infants removing the same volume over 24 hours as they will do at six months.^{8,9}

These stages are interrelated, so it is important to get things right from the start. The Initiate stage between birth and secretory activation is critical for future milk production. When breastfeeding is impaired, stimulating the breast by starting pumping within the first hour after birth, rather than in the first six, can lead to significantly increased milk production later.¹⁰ During the Build and Maintain stages, if the infant is not able to breastfeed, or cannot remove milk effectively, pumping replaces or supplements breastfeeds.

The Symphony® offers a highly effective pumping method, thanks to its two research-based programs: Medela developed its unique INITIATE program to support pump-dependent mothers to stimulate their milk production in a similar way to a term infant. MAINTAIN, meanwhile, is designed to optimise milk output after secretory activation, in order to build and maintain lactation.¹⁻³

Around 40% of mothers are at risk of delayed secretory activation (where milk comes in after 72 hours).¹¹ These mothers are 60% more likely to stop breastfeeding at four weeks,¹² with many citing insufficient milk as the reason.¹³ Such challenges could be overcome if mothers were supported with initiation in the first few hours and days after birth.

Why Symphony® programs are so effective

The programs are based on Medela's extensive research into infant feeding behaviours. It is not just mothers' milk production that follows a continuum: infant feeding patterns do too.

In the early post-birth period, a newborn's time at the breast consists largely of 'non-nutritive', stimulating sucking. This is interspersed with short bursts of 'nutritive' sucking to gain small amounts of colostrum, plus pauses.¹⁴ The INITIATE program mimics these irregular sucking and pausing patterns.

As the mother's milk production increases during the Build stage, the infant starts feeding differently: beginning with rapid sucking to stimulate flow, then slowing down to take in more milk.¹⁵ This is why MAINTAIN has a 2-Phase Expression® model, starting with a higher-frequency stimulation phase,¹⁶ followed by a slower expression phase to obtain milk.¹⁷

More milk now and in the future

A randomised controlled trial¹ (RCT) of 105 mothers with preterm infants showed that using INITIATE, followed by MAINTAIN once secretory activation occurs, made 50% more milk available within the first 14 days (see diagram below), with the mothers' supply eventually 'catching up' with a term breastfeeding infant's milk intake.¹⁸

In addition, the MAINTAIN program initiates a faster milk ejection.^{16,19} Mothers do not always feel this, but can tell it is happening when milk starts to flow during pumping. Switching to the expression phase at this point helps obtain more milk, as the first ejection typically provides around 36% of a session's milk volume.²⁰

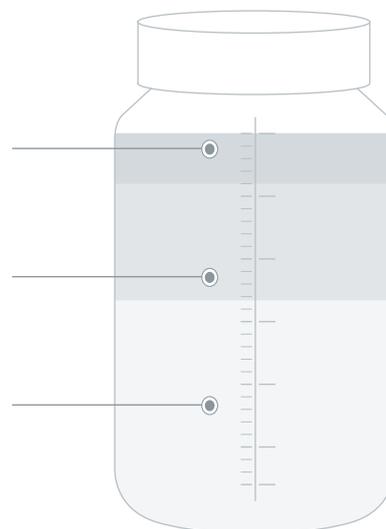
To benefit from these programs, a mother needs the right pump set. This is where Medela's latest innovation, the PersonalFit™ PLUS pump set for Symphony®, really makes a difference.

Symphony® helps make 50% more milk available over the first 14 days:¹⁸

7,580 ml
Healthy breastfeeding term infant

6,718 ml
With Medela's INITIATE program

4,379 ml
Using 2-Phase Expression® technology alone



Benefits of PersonalFit™ PLUS for Symphony®4



After **15** mins
of pumping:



11%
more milk



4%
more breast drainage



PersonalFit™ PLUS: More milk and more comfort



The PersonalFit™ PLUS pump set's groundbreaking design is based on unique clinical studies conducted by Medela. These demonstrated – for the first time – the role breast shield design plays in optimising milk removal.^{4, 5, 21}

Using Symphony® with PersonalFit™ PLUS once milk has come in removes 11% more milk after 15 minutes, compared to standard pump sets. It also drains the breast 4% more effectively⁴ – good breast drainage is a key principle of maintaining milk production.⁷

Comfort is crucial for pump-dependent mothers, which is why Symphony® has an especially gentle²² gradual vacuum

increase feature. PersonalFit™ PLUS further enhances this with a unique breast shield that improves fit to the lactating breast to promote gentle expression.²¹

In addition, the PersonalFit™ PLUS pump set has overflow protection (also referred to as a closed system). The membrane within the connector helps stop milk overflowing into the tubing or motor during use. As a result, mothers do not have to sit upright when expressing, allowing them to find the most comfortable position for them. Being relaxed is important for successful pumping, as discomfort can hinder the production of oxytocin, essential for milk release.²³

All these benefits mean that Symphony® and PersonalFit™ PLUS work together to offer more milk for infants over the first days and weeks of life and beyond. And the more milk infants receive, the greater the support for their health.^{24–28}

Only Medela

Medela has continuously set industry standards since launching its first hospital-grade breast pump in 1980. The arrival of the research-based Symphony® in 2001, with its 2-Phase Expression® technology, heralded the start of a new era in breast milk expression. It raised the bar further in 2009, releasing the first version of its unique Initiation technology. Now PersonalFit™ PLUS is the latest innovation to set new standards in pumping performance.



View the evidence

1 Meier PP et al. J Perinatol. 2012; 32(2):103–110. **2** Post EDM et al. J Perinatol. 2016; 36(1):47–51. **3** Torowicz DL et al. Breastfeed Med. 2015; 10(1):31–37. **4** Prime DK et al. 6th ABM Europe Conference, Rotterdam, NL; 2018. **5** Clinical study. (NCT02496429). 2015. **6** Pang WW, Hartmann PE. J Mammary Gland Biol Neoplasia. 2007; 12(4):211–221. **7** Kent JC et al. J Obstet Gynecol Neonatal Nurs. 2012; 41(1):114–121. **8** Kent JC et al. Pediatrics. 2006; 117(3):e387–95. **9** Kent JC et al. Breastfeed Med. 2013; 8(4):401–407. **10** Parker LA et al. J Perinatol. 2012; 32(3):205–209. **11** Nommsen-Rivers LA et al. Am J Clin Nutr. 2010; 92(3):574–584. **12** Brownell E et al. J Pediatr. 2012; 161(4):608–614. **13** Gatti L. J Nurs Scholarsh. 2008; 40(4):355–363. **14** Sakalidis VS et al. J Hum Lact. 2013; 29(2):205–213. **15** Mizuno K, Ueda A. Pediatr Res. 2006; 59(5):728–731. **16** Kent JC et al. J Hum Lact. 2003; 19(2):179–186. **17** Mitoulas L et al. J Hum Lact. 2002; 18(4):353–360. **18** Neville MC et al. Am J Clin Nutr. 1988; 48(6):1375–1386. **19** Burton P et al. J Hum Lact. 2013; 29(3):412–419. **20** Prime DK et al. Breastfeed Med. 2011; 6(4):183. **21** Clinical study. (NCT02492139). 2016. **22** Meier PP et al. Breastfeed Med. 2008; 3(3):141–150. **23** Newton M, Newton N. J Pediatr. 1948; 33(6):698–704. **24** Schanler R et al. Pediatrics. 1999; 103(6 Pt 1):1150–1157. **25** Schanler RJ et al. Pediatrics. 2005; 116(2):400–406. **26** Vohr BR et al. Pediatrics. 2006; 118(1):e115–e123. **27** Patel AL et al. J Perinatol. 2013; 33(7):514–519. **28** Patel AL et al. NeoReviews. 2007; 8(11):e459–e466.

Discover what PersonalFit™ PLUS can do for your next generation. Go to medela.com/pfp or contact your Medela representative