2/2023

JOURNAL FOR NICU & MATERNITY CARE

Beginnings

SIZE MATTERS
How to find the correct breast shield

MUM'S ANATOMY
The secret of Medela's wearable cups

LACTATION INTERVENTION
The difference a proactive approach can make

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Medela Symposium 2023

Burning topics, latest research and renowned speakers with the best expertise in their fields: The 16th Global Breastfeeding and Lactation Symposium was a huge success and offered attendees many new insights on how to improve patient care and support mother's milk for every infant.

Focusing on advancing lactation science to improve care, the three-part symposium series came to a successful conclusion in Europe (Munich, Germany) in June after kick-off in the US (Chicago) in April, followed by China (Beijing) in May. More than 2,600 healthcare professionals in maternal and infant care took the chance to learn about the latest research findings and key insights from global and regional experts in human milk and lactation. The transfer of that knowledge from 'bench' to 'bedside' is an essential step in the process so on day 2 of the European edition of the symposium, the healthcare experts on site took these findings into curated workshops with the goal of translating them into clinical practice.

TUNE IN NOW AND EARN CPD POINTS!
Delivering on Medela's commitment of turning science into care, speaker presentations from the series are available free of charge for virtual access through Medela University! Recordings are available in English, Spanish, French and German.
www.breastfeedingandlactation.medela.com

STAY TUNED FOR MORE!
The results of the workshops will be available following the symposium and Medela will hold events across Europe to present the workshop conclusions and recommendations to improve breastfeeding and lactation care in neonatal units.

> CONDUCTING THE RESEARCH IS ONLY HALF OF A MUCH LARGER PICTURE, WHICH IS WHY OUR GLOBAL SYMPOSIUM IS COMMITTED TO BRIDGING THE GAP BETWEEN RESEARCH AND PRACTICE, MAKING IT ACCESSIBLE, FREE OF CHARGE, TO THE PEOPLE WHO USE AND NEED IT, TO NURTURE HEALTH FOR GENERATIONS.
>
> ANNETTE BRÜLS, CEO OF MEDELA WORLDWIDE.

LATEST RESEARCH TO INFORM CLINICAL PRACTICE

- **Dr. Rebacca Hoban (from left to right),** Staff Neonatologist and Director of Breastfeeding Medicine at The University of Washington/Seattle Children's Hospital in Seattle, USA shared her insights about prophylactic lactation support as standard of care for mothers of NICU infants. Read all about her approach in our interview from page 4!
- **Prof. Diane Spatz,** Professor of Perinatal Nursing at the University of Pennsylvania School of Nursing and Children's Hospital of Philadelphia, who also serves as chairperson for Medela's Scientific and Clinical Advisory Board in the Americas, called for action by improving human milk and breastfeeding outcomes by prioritizing effective initiation of lactation. "There is a critical window for the establishment of a milk supply and we as advocates and clinicians have an obligation to families to teach them the science of human milk and the physiology of lactation", she said.
- **Prof. Neena Modi** of the Imperial College London, who also serves as President-elect of the European Association of Perinatal Medicine, asserted the need for standardized metrics that capture lactation and infant feeding, saying that by implementing standardized information recording in neonatal units, we could develop universally accepted quality indicators, improve care, and drive research for better breastfeeding outcomes.
- **Prof. Lars Bode,** Ph.D., of the University of California San Diego, talked about the dynamics of human milk composition stressing that "human milk and lactation do not stand in isolation; they are part of a dynamic biological system that is embedded in socioeconomic, cultural, behavioral, and environmental contexts."
- **Prof. Donna Geddes** from the University of Western Australia highlighted the importance of dose: "As we seek to understand how human milk composition impacts the health of our next generation, we often default to analyzing concentrations of milk components. Yet when we measure the dose the baby receives, a new world opens up with the promise of innovative ways to improve the health of our children"
- **Dr. Sarah Bates,** Consultant Pediatrician and Neonatologist at the Great Western Hospital in Swindon put the spotlight on improving survival and outcomes for preterm infants through optimizing early maternal breast milk and introduced the innovative national toolkits created by the British Association of Perinatal Medicine. She demonstrated its utility in optimizing OMM for preterm infants from initiation of lactation to post-discharge, showcasing how this initiative can positively reshape the health trajectories of preterm infants.

CONTENT

IMPRESSUM

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LACTATION SUPPORT IS A *medical emergency!*

With her ground-breaking new insights about milk biomarkers, Dr. Rebecca Hoban makes an engaging case for a more proactive approach in lactation support.

Rebecca Hoban

Dr. Rebecca Hoban is a Staff Neonatologist and Director of Breastfeeding Medicine at the University of Washington/Seattle Children's Hospital in Seattle, USA and an Associate Professor of Paediatrics at the University of Washington. Her current projects include improving mother's milk provision in the NICU and milk biomarkers to predict lactation success.

WHY IS IT SO IMPORTANT TO DIAGNOSE LACTATION DIFFICULTIES EARLY ON?

What we saw in our studies at Rush University Medical Center was that most mothers of very low birth weight babies met their lactation goals initially and provided milk for the first days, but then rates just plummeted in the next weeks to months. We know that mothers of these very premature babies have many risk factors for lactation, starting from not being able to complete the pregnancy so their breasts are not fully developed yet. They might deliver by C-section and themselves have pre-existing health conditions, which is why they are delivering early in the first place. They have also not had the chance to learn about lactation and make an informed decision. All of these things directly impact lactation outcomes. The lactation problems that make human milk feeding rates drop at six months do not happen at six months. Rather something is happening during the first days that is setting these mums up to not meet their lactation goals. So diagnosing lactation difficulties early on can guide early intervention during that very time-limited window to impact long-term lactation; this important phase of "breast programming".

HOW CAN WE DIAGNOSE THESE CHALLENGES FOR LACTATION EARLY?

Currently we have very few options to diagnose pump-dependent mothers who struggle. Our recognition of low volumes is only retrospective and by that time milk volumes have already failed to increase. Traditionally we ask mums "Has your milk come in? Do you feel a change in your breasts?". This is a problematic measure though because obese mums, for instance, may be less likely to experience this feeling. So it is not a very good marker as far as secretory activation goes. You might argue that you can instead rely on early pumped volume – track the volumes of pumped milk or do infant test weights – but this is also problematic because it does not actually measure what is happening in the breast. If there is too little milk – is it because Mum is not extracting enough or because she is not making enough? We simply cannot tell. I have been focusing on human milk biomarkers as a direct measure of what is happening in the breast in real time.

PLEASE TELL US MORE ABOUT HOW THIS BIOMARKER DRIVEN APPROACH WORKS.

When we are looking at biomarkers, we are actually measuring the closure of the tight junctions in the mammary epithelium. Once the inhibition of progesterone is removed, it is prolactin that catalyzes the closure of these tight junctions. This closure prevents milk components from leaking out of the gland and is the crucial first step for long-term lactation. Sodium is a key biomarker here. As the tight junctions close, milk sodium plummets really quickly and milk volumes go up. Our studies have clearly shown how milk sodium immediately increases when the number of daily pumping sessions decreases – and already by the next day, milk volumes drop. Moreover, we found

> MANY MOTHERS HAVE MULTIPLE RISK FACTORS FOR LACTATION, WHICH ALL THEN INTERACT, RESULTING IN A POPULATION THAT IS GOING TO BE CHALLENGED FROM THE BEGINNING.

"We need personalized, data-driven, real-time lactation care that can predict concerns even before they become obvious.

Biomarkers can give us this window to the future and help us identify who needs support very early on."

that by measuring milk sodium levels, we could already tell within three days post-partum, who was going to come to volume (produce >500 ml daily by two weeks)! And a previous study of ours has shown that coming to volume by two weeks is the strongest predictor of own mother's milk feeding at NICU discharge. So by day 3 we have a window into the future of who is going to be providing milk months later! And this means we have an opportunity to proactively intervene!

WOW, THIS SOUNDS LIKE THE FUTURE OF LACTATION!

It could be. We currently have funding from the Canadian government to look further into this with a pilot. Measuring sodium levels is so easy, Mum can do it herself and it could have such a big impact. We need personalized, data-driven, real-time lactation care that can predict concerns even before they become obvious. This way clinicians could intervene immediately when there is still the potential to safeguard a mum's lactation journey. We could give individualized "pumping prescriptions", so to speak. More frequent pumping in those critical first days is most likely to boost prolactin, achieve effective initiation and normalize the biomarkers. Based on one human milk biomarker, sodium, this timely intervention could be possible!

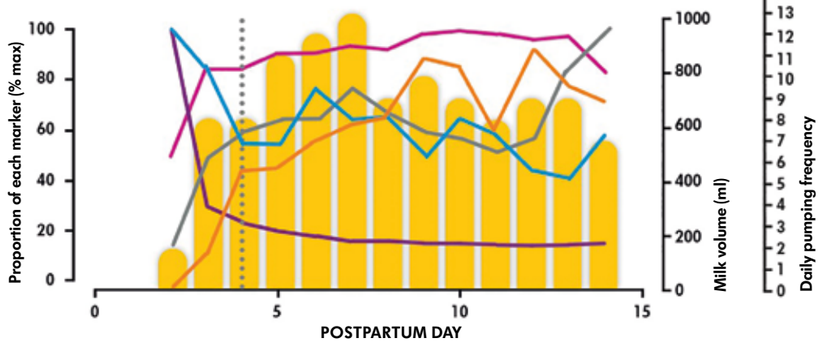
IN YOUR EXPERIENCE, WHICH OTHER FACTORS CAN INFLUENCE COMING TO VOLUME?

You need both stimulation and milk removal for coming to volume. Prolactin is a very critical player here. It catalyses the important closure of the tight junctions and it also upregulates genes that help mothers make more milk-making cells and also prevents the death of these.

SO HOW DO WE MAKE MORE PROLACTIN?

Prolactin is released with suckling or suction and it is released much more in the first few weeks of lactation than it is months later. So frequent and effective pumping from the start is really critical for pump-dependent mothers. Yet there are still hospitals today advising mums to hand express in the first three days instead of pumping with a double electric pump – and this drives me crazy because we have the data to prove that pumping is so much more effective! In a study by Lussier and collaborators published in 2015[1], mothers of very low birth weight infants were randomized to an electric pump or hand expression in the first week. The mothers that were given the pump made twice as much milk in the first week! Even after the first week, when the mothers who were told to hand express first were also given a pump, they never caught up. Even at one month those mothers were making significantly less milk than the mums who started off with pumping. They missed that critical window for breast programming and this is a time we can never get back.

Biomarker PATTERNING



First day with normal sodium, citrate, protein and lactose

Hoban R et al. Breastfeed Med. 2018; 13(5):352–360.

COMPARING THE EFFECTIVE INFANT FEED TO Expression Methods

	Vacuum	Tactile compression	Colostrum collection	Effectively activate milk-making cells	Reduced risk of delayed secretory activation
	✓	✓	✓	✓	✓
	✓	✗	✓*	✓	✓
	✗	✓	✓	✗	✗

*Tiny volumes of colostrum are sometimes difficult to recover, which can lead to wastage

YOU USE THE TERM "BREAST PROGRAMMING". WHAT DO YOU MEAN EXACTLY?

It is important that we, as well as the families, are aware that our goal in these first days and weeks is not to make milk for the newborn at that particular time. Our goal is to have enough milk later on, when they are four months or six months old. Preterm infants eat almost nothing in the first days depending on how sick they are, so you have to be very careful with the question "Is there enough milk?" The baby might only be eating 8 ml a day – but that does not mean the mother is making enough milk to secure long-term lactation and have enough milk when that 500 g baby is 4 kg. The preterm baby will eventually need as much milk as a term baby and we have to make sure this milk supply is available when that day comes. This is why all mothers have to program their breasts regardless of the newborn's current intake. So the question " Is there enough milk?" is not the right question to ask. The question we should be asking is: "Has the mother come to volume?" To do this, pumping often, even at night, is just as critical as pumping early.

WHAT IS YOUR RECOMMENDATION TO WARDS?

We need to really stress the importance of early, frequent and effective breast stimulation in mothers with preterm infants. We know these mums need to start pumping with a double electric pump with Initiation technology within the first six hours of delivery. And this does not happen magically, we need to start these conversations before delivery! Ideally mums should be pumping at least eight times a day as well as having skin-to-skin contact with their babies. As far as this window of the first six hours goes, there is a very good study by Leslie Parker[2] that randomized mothers to start either within these first six hours or after and the group that started pumping within the 6-hour-window made twice as much milk during the first week compared to those starting later. That is the difference of an exclusive mother's milk diet or not in some cases! Interestingly, pump-dependent mothers who started a bit later within that 6-hour time frame actually made more milk in the first three days and at six weeks than those who started within the first hour.[3] The study came to the conclusion that the stress of pumping as soon as possible might backfire and that allowing mothers some hours to recover actually led to them pumping more frequently in the first days and allowed them to make more milk.[3]

HOW CAN WE ACHIEVE EFFECTIVE MILK REMOVAL?

The term infant's suckling is the gold standard: It should have good suction, there is some compression involved and these together release prolactin and oxytocin. The electric pump provides suction but no compression – while hand expression compresses but does not suck. So it is only the pump that releases prolactin. And if you remember the benefits of prolactin I mentioned earlier, it is critical for the feedback loop of making more milk. So if you don´t have a baby that is adequately latching and removing milk and you don't use a pump, you will simply not be able to establish a good enough milk supply. A double electric, hospital-grade pump with Initiation technology should be the standard of care for mothers who are pump dependent for their lactation initiation. – And, by the way, that also includes mothers of moderately or late preterm babies or even early term babies or infants of diabetic mothers who cannot sufficiently remove milk. We have to make sure they pump after the baby has been at the breast to fully support breast programming. Hand expression is simply not enough to establish lactation and it should never be used alone in at-risk or pump-dependent mothers.

HOW CAN WE MAKE SURE MOTHERS GET ALL THIS INFORMATION?

In our NICU we have a very proactive approach: The goal is for all mothers to see a lactation consultant within 24 hours of birth. There are studies, as the one by Mercado and collaborators,[4] showing just how beneficial this can be: When lactation consultants are involved, higher proportions of NICU babies will be fed milk of their own mother and those feeding rates at discharge are a lot higher. We also emphasize a lot of bedside nursing education. The bedside nurses see families throughout the day so they are a really critical form of communication. We also give all mothers a quick checklist and a colostrum kit when we first pick up the newborns. This way we make sure Mum has the first important instructions right away. It is so important that we share the science! We need proactive lactation support! We need a sense of urgency! We need to educate nurses, we need to educate our fellow physicians, we need to educate parents, so families can choose and meet their lactation goals – rather than their milk supply choosing for them.

> If someone was to create a pill tomorrow that could protect against NEC, diabetes, allergies, cancer and so much more, people would probably pay a billion dollars to get it. But we have it already! It is called mother's milk! It is magical medicine and we need to make sure every baby can get it.

MOTHERS NEED TO KNOW: THEY ARE NOT PUMPING TO MAKE A LOT OF MILK IN THE HERE AND NOW. THEY ARE DOING IT TO PROGRAM THE BREAST SO THEY HAVE ENOUGH SUPPLY LATER.

1 Lussier MM et al. Daily breastmilk volume in mothers of very low birth weight neonates: a repeated-measures randomized trial of hand expression versus electric breast pump expression. Breastfeed Med. 2015; 10(6):312–317. **2** Parker LA et al. Association of timing of initiation of breastmilk expression on milk volume and timing of lactogenesis stage II among mothers of very low-birth-weight infants. Breastfeed Med. 2015; 10(2):84–91. **3** Parker LA et al. Timing of milk expression following delivery in mothers delivering preterm very low birth weight infants: A randomized trial. J Perinatol. 2020; 40(8):1236-1245. **4** Mercado K et al. What Is the Impact of NICU-Dedicated Lactation Consultants? An Evidence-Based Practice Brief. Adv Neonatal Care. 2019; 19(5):383–393.

DR. REBECCA HOBAN RECOMMENDS

Pump up the volume!

CHECKLIST FOR MOTHERS

- ✔ Start pumping within 6 hours of delivery with a (hospital grade) double electric pump with Initiation technology
- ✔ Rent or purchase a double electric pump for home use
- ✔ Pump every 2-3 hours - at least 8x daily
- ✔ Wake at least once at night to pump
- ✔ Ask to speak to the lactation consultant in the post-partum ward ASAP
- ✔ Don't worry if you don't get anything, or only drops when you pump – this is normal, keep going!
- ✔ When you get to the NICU, speak to your baby's nurse or a lactation consultant

Share the science!

CHECKLIST FOR HEALTH CARE PROVIDERS

- ✔ Early (if possible, prenatal) counseling of families on the importance of milk of the own mother and early skin-to-skin contact.
- ✔ Early, frequent, effective expression with a (hospital-grade) double electric pump with Initiation technology. Hand expression alone should not be used routinely during the critical window of lactation initiation with pump dependency
- ✔ Proactive lactation support.
  1. Practical education of what is normal; lactation consults should be standard
  2. Close monitoring of pumping + daily volumes in first 2 weeks
  3. Consider checking biomarkers (milk sodium levels) as a means to diagnose and guide lactation challenges

Best cases

FOR IMPROVING BREASTFEEDING RATES

The best thing about dozens of lactation experts from all over Europe coming together is that all of them bring success stories along! Two examples that made waves at the 2023 Medela Symposium in Munich: for pushing the bar on exclusive breastfeeding rates at discharge in NICUs.

The road to success is a combination of multidisciplinary commitment, personalization of care and systematization of practice

Dr. Manuel Cunha won the Medela best Abstract Awards at the 2023 European Symposium

Dr. Manuel Cunha, Head of Department and Coordinator of Neonatology and Pediatrics unit at Cascais Hospital in Portugal, on how he managed to increase breastfeeding rates at discharge in the NICU by more than 30 percentage points in four years.

"In 2018, the indicator for exclusive breastfeeding at discharge for newborns under 35 weeks of gestation in our hospital was 39.8%. Clearly too low! As we set out to improve this quality indicator, all clinical practice was reviewed based on the best available evidence and the indications of the Portuguese Health General Direction, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). As a result, we established an action plan with strategies directed to professionals, parents and newborns alike.

A new protocol for administration of colostrum in the oropharynx from the day of birth until feeding autonomy turned out to be a key factor. 40% of babies now received their first colostrum within the first 24 hours after birth. Initiatives to promote breastfeeding were implemented such as frequent and regular milk extraction – manual and with electric double pumping – as soon as possible after delivery, positive feedback to the mothers for every drop of milk they expressed, promotion of skin-to-skin contact, non-nutritive sucking and finger feeding as well as regular feedback to all team members of the results obtained.

We have also promoted systematic management of breast milk stocks through the MilkTrac® system already implemented in our hospital. The use of technology to support the operational process allowed us to improve process compliance and monitor key steps for the success of the project.

And the results are impressive indeed: By the end of our project, the quality indicator of exclusive breastfeeding at discharge had increased to 73.1 % in 2022! An outcome closely related to the quantity of milk babies receive at the end of the first week, which in turn is related to the time of the first collection. We attribute this success to the involvement of a multidisciplinary team and training in early colostrum collection and administration, as well as a personalised approach to care and systematisation of practice that offers all babies and families the same opportunities."

We found informing mothers before delivery to be a real gamechanger. Especially in premature births, early support and training is crucial.

Prof. Miguel Sáenz de Pipaón Marcos believes in involving nurses and midwives to install a human milk protocol.

More than 70 % breastfeeding rate at discharge – the best case presentation of Prof. Miguel Sáenz de Pipaón Marcos, physician at the Neonatology Department of Hospital La Paz in Madrid in Spain, left workshop attendants in awe. Which begs the question: How did you achieve this, Doctor?

"First and foremost it was hard work – and a real team effort of doctors, midwives and nurses. We have formed a "Human Milk Working Group" that is co-chaired by a neonatologist and an obstetrician. The involvement of nurses and midwives from the very beginning is key. Together we have established a human milk protocol which is re-trained every four months through mandatory courses for all staff, to refresh and perpetuate knowledge. The lactation unit and nutrition team monitor the babies' intake of their own mother´s milk (OMM) – electronic systems filled out by the nurses are able to distinguish between the different types of milk: OMM, donor human milk or formula. We have monthly meetings across the different units where we look at the summarized data of multiple babies, and we also have weekly internal meetings on the neonatology ward where we discuss individual cases.

Generally, we found information before delivery to be a real gamechanger. Especially in premature births it is crucial to support and train the mothers as early as possible on how to express their milk. In our experience there is much more difficulty with mothers producing milk in unexpected preterm births. That is why we have appointed a neonatal nurse and a midwife as lactation consultants who are responsible for antenatal counselling. Our team has also designed information leaflets and we are currently designing QR codes to support mothers with written information, too.

Where possible, babies stay with their mothers immediately after birth. Very premature babies are cared for in single rooms with a bed for the mother or father. Mothers are encouraged to collect their colostrum as early as possible after birth. First by expressing by hand (within the first three hours), then by pumping (within six hours after birth). Collecting colostrum as early as possible and giving it to the infant immediately is a vital factor! In fact, colostrum is prescribed as "medication" by the attending physician to each infant immediately after admission to the NICU. We also work with the regional donor bank to use donor human milk as a bridge, as long as own mother's milk production is still building up. To come to volume, the mother is supported by midwives, nurses and lactation consultants all the way.

FOR MORE MORE INSIGHTS
watch our Symposium recording on:
breastfeedingandlactation.medela.com

CPD points available!

Size matters

HOW TO FIND THE RIGHT BREAST SHIELD

A FITTING BREAST SHIELD IS AN ESSENTIAL PART FOR EFFECTIVE PUMPING, OPTIMISING MILK FLOW.

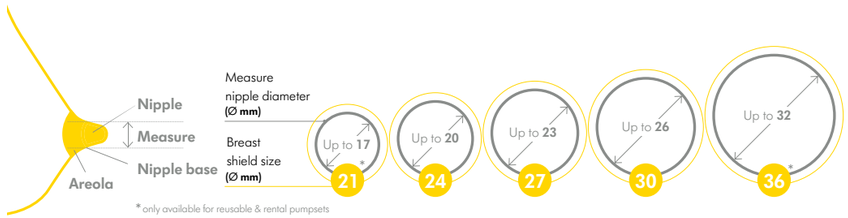
Finding the right size of breast shield can be difficult for a new mother, so a close check with your professional eye is always a good idea. Especially, since a badly fitting shield can jeopardize the success and output of the whole pumping effort: When a let down occurs, milk flows through the ducts[1] towards the nipple. Some ducts lie close to the surface of the skin (within 3mm)[2] and can be compressed if too much pressure is applied on them.[2]

PUMPING SHOULD NEVER HURT

Before milk ejection, when the breast shield fits correctly, there is minimal pressure on the nipple or areola. The nipple is centred and can move freely. When milk begins to flow, the ducts expand. With a well-fitted shield the milk flows freely[3] and pumping should not hurt. Discomfort during pumping is always a sign you should check whether the mother is using her right breast shield size. This can happen, when too much of the areola is pulled into the shield tunnel or when the nipple is rubbing against the tunnel walls if the shield is too small. (See graphic on the right.)

MEASURING IS KEY

Generally, milk ducts increase in size by 68% during a let down[1] and the nipple diameter may increase temporarily by 2 to 3 mm.[2] As a result, the breast shield tunnel needs to be slightly bigger than the mother's nipple. To determine the right size, a simple ruler can be of good service: Simply measure the nipple diameter (not including the areola!) and check the table below for the corresponding breast shield size. For maximum comfort and pumping efficiency, Medela offers several breast shield sizes.



GOOD TO KNOW

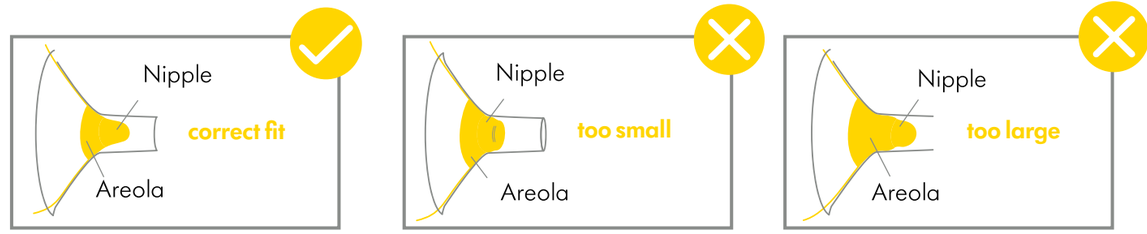
The breast shield size will depend on breast tissue and skin elasticity. When vacuum pressure is applied, the nipple size can change – and the breast shield size can also change over the duration of the pumping journey. In fact, some mothers may actually need a different size per breast.

REASONS TO TRY A NEW SIZE

- Does the nipple rub the tunnel sides to the point of causing discomfort?
- Do you see excessive areola being pulled into the tunnel?
- Do you see any redness?
- Is the nipple or areola turning white?
- Do the breasts not feel suffiently drained after pumping?

FOR MORE INFORMATION
www.medela.com/breast-shields-sizes

What to look out for:

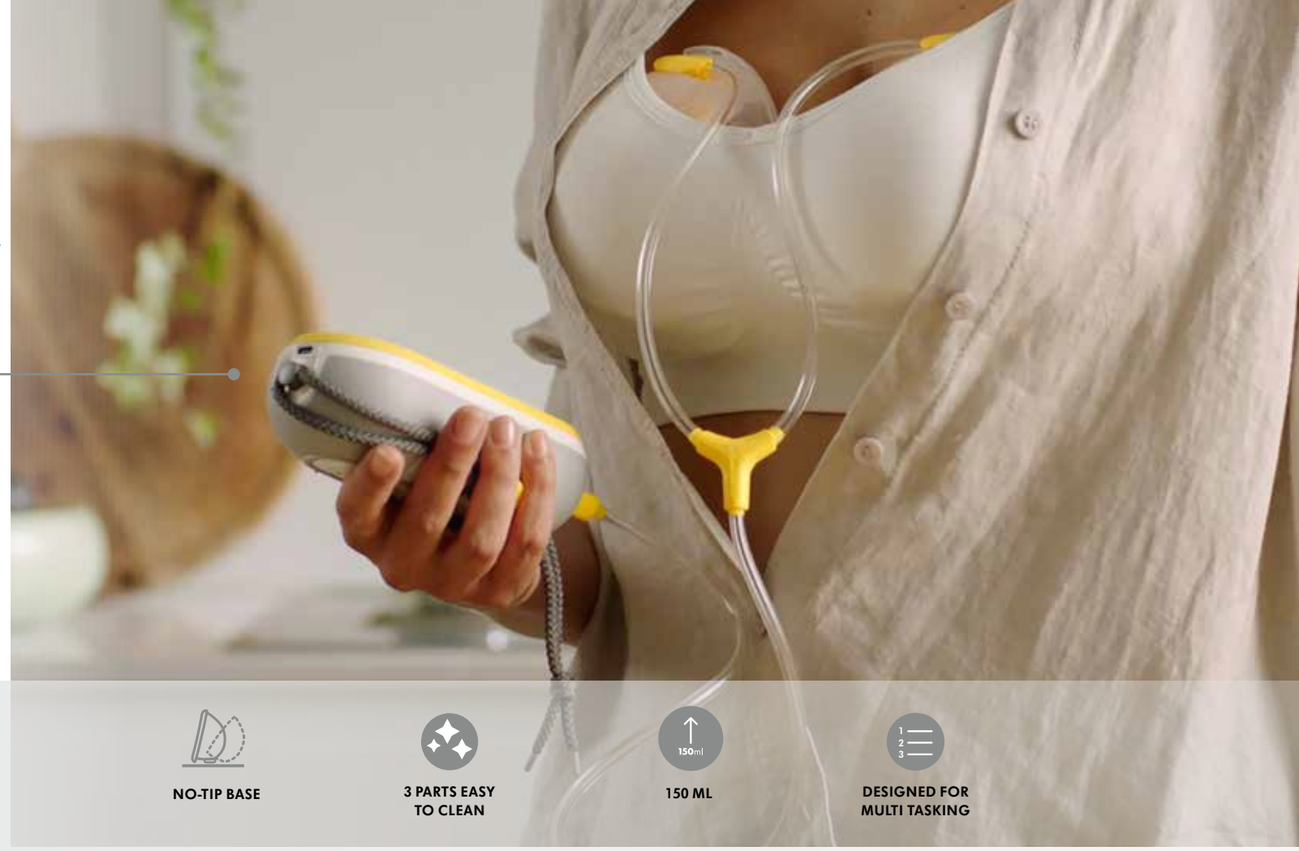


ALWAYS CENTRE THE NIPPLE IN THE TUNNEL AND ADJUST FOR MAXIMUM COMFORT VACUUM TO ACHIEVE OPTIMUM SUCTION LEVEL!

1 Ramsay DT et al. Pediatrics. 2004; 113(2):361–367. **2** Geddes DT. J Midwifery Womens Health. 2007; 52(6):556–563 **3** Jones E, Hilton S. J Neonatal Nurs. 2009; 15(1):14–17

ANATOMY *makes the difference*

Handsfree pumping on the go is the next level of comfort for mothers and an exciting new challenge for pump designers. Thanks to our extensive research on breast anatomy we were able to develop a unique anatomic shape for our first wearable collection cups.

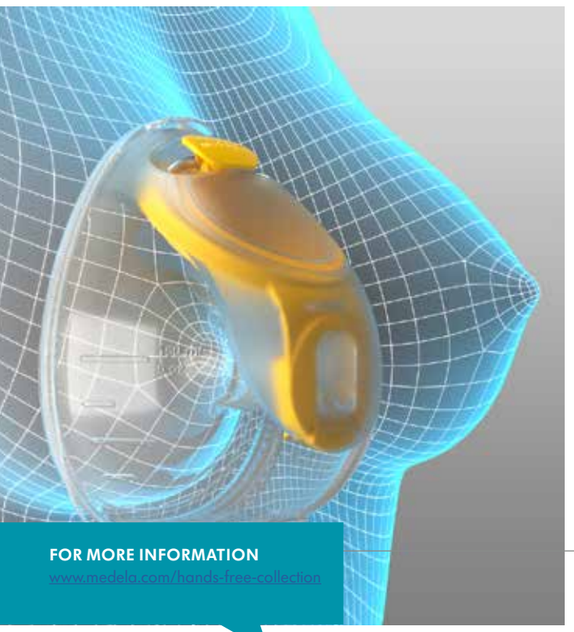


Hands-free

DISCREET · PORTABLE · ANATOMIC DESIGN · MIMICS BABY · TRANSPARENT DESIGN

NO-TIP BASE · 3 PARTS EASY TO CLEAN · 150 ML · DESIGNED FOR MULTI TASKING

As a healthcare professional, you're not only looking for effective, but also simple solutions that make life easier for mums and breastmilk easily available for infants. Our new hands-free breast pumps offer a completely new level of ease and comfort to pumping mothers, combining our proven research based technologies like 2-Phase Expression® with lightweight, anatomically designed collection cups with many benefits. A crucial factor, as milk ducts increase in size by 68% during milk flow[1], making it extremely important to reduce any compression on the breast which has the potential to obstruct milk flow.[2,3]



FOR MORE INFORMATION
www.medela.com/hands-free-collection

Benefits of Medela's wearable cups:

COMPLEMENTING THE NATURAL SHAPE
of the lactating breast, they fit most breast shapes and nursing bras.

LIGHTWEIGHT,
so they do not apply any weight and pressure on the breast.

SMOOTH SURFACE
with a rim which flares away from the breast, designed to minimise localised compression.

105° ANGLE OF THE BREAST SHIELDS
delivering a more comfortable and efficient pumping experience.[6]

BROADER LOWER HALF OF THE CUPS
to help support the underside of the breast, which houses the majority of the milk-making tissue and is susceptible to compression.[3,7]

A NEW SUPERIOR PUMPING EXPERIENCE

And it is not just the unique design of the collection cups that has mothers - and professionals – excited. The compact, lightweight, portable pumps stay in the pocket, so they don't weigh on the mother's breast. In studies conducted at the University of Western Australia, 23 mums tested Freestyle™ Hands-free and 96% of mums were satisfied or very satisfied with the comfort of their pumping experience and let-down came on average 23 seconds faster![4]

Freestyle™
Hands-free

DOUBLE PUMPING
- 18% more milk in a 15-minute pumping session compared to single pumping[8]
- Less time spent pumping
- An additional milk let-down reflex[8]
- Higher energy content in the pumped breastmilk[8]
- Better and more effective drainage of the breast[8]

TOUCHSCREEN
illuminated with intuitive controls to have information at a glance

2 SIZES
21 mm and 24 mm breast shield included

UP TO 8 PUMPING SESSIONS
with one full load

CLOSED SYSTEM
prevents breast milk from entering the motor

AUTOMATIC TRACKING
via Medela Family™ App

Solo™
Hands-free

SINGLE PUMPING
For occasional use

1 SIZE
24 mm breast shield included

UP TO 6 PUMPING SESSIONS
with one full load

CLOSED SYSTEM
prevents breast milk from entering the motor

AUTOMATIC TRACKING
via Medela Family™ App

References: 1 Ramsay DT et al. Pediatrics. 2004;113(2):361-367. **2** Prime DK et al. Breastfeed Med. 2018; 13(7):A-45. **3** Geddes DT. J Midwifery Womens Health. 2007;52(6):556–563. **4** Data on file, 2022. **5** Patent number EP22182874.2. **6** Sakalidis VS et al. Acta Obstet Gynecol Scand. 2020; 99(11):1561-1567 (compared to 90° breast shields). **7** Gooding MJ et al. J Ultrasound Med. 2010; 29(1):95-103. **8** Prime DK et al. Breastfeed Med. 2012;7(6):442-447.

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THE SCIENCE OF CARE™

Dear Partners,

Medela has been an advocate for breastfeeding for more than 60 years and is fully committed to the goals of the WHO and its recommendations for breastfeeding to support mothers, babies, and families along their breastfeeding journeys. We are fully committed to the goals of the World Health Organization's International Code of Marketing of Breast Milk Substitutes (further referred to as International Code) and resolutely support mothers, babies, and families along their breastfeeding journey.

As part of our pledge to uphold our obligations under the International Code, we have introduced **updated marketing guidelines** removing all advertising and other forms of promotion to the general public of feeding bottles and teats.

We have **recently conducted an audit of our webpages*** to ensure there is no idealization of bottle feeding or any statement that implies similarity with breastfeeding. This means that...

- Medela will neither idealize bottle feeding (e.g., "Make breastfeeding simple," "Easiest way to feed," "Feeding was never so easy," etc.) nor make any statement that implies similarity with breastfeeding (e.g., "As good as breastfeeding," "Teats shaped just like the nipple of the mums"; "Close to natural breastfeeding" etc.).
- Medela webpages and marketing materials related to storage bottles and teats will only be factual and will not show images or idealized text.
- Medela webpages related to storage bottles and teats will not promote, advertise or suggest as useful or relevant products within our webpages.
- Medela images of storage bottles with expressed milk will be shown in context with expressing milk.
- Medela will not show images of infants being bottle fed, or bottles with teats. Parents and infants will only be shown on packaging or Medela's owned channels in the context of breastfeeding or expressing human milk.
- Medela will not provide, directly or indirectly, to pregnant women, mothers, or members of their family samples of products as outlined within the scope of the International Code. Samples of products within the scope of the International Code will not be provided to health workers except upon request for professional evaluation or research at the institutional level.
- Medela will not use facilities of health care systems to display storage bottles assembled with teats.
- Medela will disclose to the institution to which a recipient health worker is affiliated any contribution made to or on their behalf for fellowships, study tours, research grants, attendance at professional conferences, or the like, and will ensure that the recipient makes similar disclosures.

If you notice any non-compliance to our Medela marketing guidelines, please contact us via this email: **marketingguidelines@medela.com**

As we carry on into our seventh decade of supporting breastfeeding, we continue to live up to our mission to nurture health for generations by reinforcing the life-giving benefits of human milk.

However, we recognize that this is not a lone endeavor and that it 'takes a village' to support mothers, babies, and families along their breastfeeding journeys. As such, it is important to acknowledge all that you, as individuals, clinicians and organizations do to support breastfeeding families. We look forward to joining you in the mission.

Annette Brüls, CEO Medela AG **Anita Treiber, CMO Medela AG**

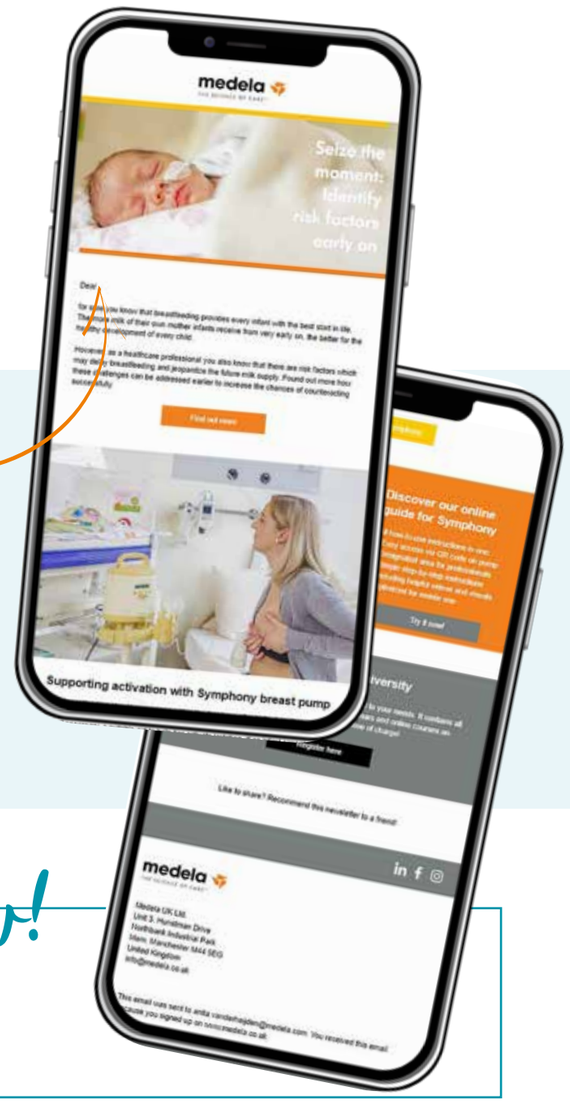
'Audit completed July 2023. This will be completed on an annual basis to ensure alignment with the guidelines listed herein.

Sharing for caring

DISCOVER OUR NEW NEWSLETTER FOR NICU & MATERNITY PROFESSIONALS

Your guidance and care are invaluable for a new mother and we make it our mission to support you in supporting them. With our newsletter we can now share latest research findings and best cases with you even faster!

For more than 60 years research has been at the core of all our actions and product developments. Medela partners with world-renowned researchers, institutions and clinical organizations as we strive to turn science into care. To support each mother in reaching her breastfeeding goals and make sure that all babies can profit from the life-giving benefits of mother's milk for as long as possible. We constantly learn more about lactation, breast milk, the baby's natural drinking behaviour and breast anatomy and we love to share these insights with you!



SIGN UP FOR OUR NEWSLETTER TO RECEIVE:

- ✔ Latest research in the field of lactation and breastfeeding
- ✔ Exclusive trainings & events
- ✔ Best cases from clinical practice from all over Europe
- ✔ New developments for breastfeeding support
- ✔ Innovative new technologies and products

Join us on our journey to turn science into care.

Sign up now!

Just scan the code to subscribe or visit us at
www.medela.co.uk/newsletter-subscribe

CALL TO ACTION

Early intervention on delivery suite is crucial. Initiation of lactation is a one time event and its critical time window is easily missed.

EVERY MINUTE COUNTS

The post-birth period is a critical window for future milk volume success

Studies highlight that NICU and high risk mothers who initiate pumping within **3 hours** after birth significantly reduce the time to secretory activation (milk 'coming in') and have higher daily and cumulative milk volumes over time.[1-4] Mothers are also more likely to be lactating at **6 weeks** and when infants are discharged from NICU.[1-4]

How can you best support mothers to initiate lactation when baby is unable to directly breastfeed?

Facilitate pumping on Delivery Suite within 1 - 3 hours post birth

Hand expression to harvest those first sticky drops of colostrum.

\+

Double pump using Initiation technology to stimulate the breast and prime prolactin receptors

References: 1 Parker LA et al. J Perinatol. 2012; 32(3):205–209 **2** Parker LA et al. Breastfeed Med. 2015; 10(2):84–9 **3** Parker LA et al. FASEB J. 2017; 31(1 Suppl):650.19 **4** Parker LA et al. J Perinatol. 2020 **5** Meier,P.P. et al. Clin Perinatol 37, 217-45 (2010) **6** Vohr,B.R. et al. Pediatrics 118, e115-e123 (2006). **7** Schanler,R.J. et al. Pediatrics 116, 400–6 (2005). **8** Lucas,A. et al. Lancet 336, 1519-1523 (1990).

EVERY DROP COUNTS

The more OMM an infant receives each day, the lower the risk of disease.[5]

Higher volumes of Own Mother's milk (OMM) can mean:

- earlier transfer from the NICU[6,7]
- reduction in the risk of diseases such as NEC, Sepsis and BPD[7-11]

In fact feeding very low birth weight infants their own mother's milk reduces their mortality rates by 21%[12]

EQUIP YOUR DELIVERY SUITE WITH OUR EARLY PUMPING PACKAGE:

2 x Symphony plus mobile with Medela's unique Initiation technology
Staff training on the importance of early initiation by our Educator

Special Package Price

Please contact Medela UK Customer service team to find out more.

medela
THE SCIENCE OF CARE™

Symphony.
More milk when the baby needs it most

Double pumping with Symphony – your recommendation for baby's best start and a successful breastfeeding journey!

HOSPITAL-GRADE PUMP FOR EVERY NEED

Whether a mother is dealing with breastfeeding challenges or a separation from her baby, Symphony is always the best choice.

UP TO 50% MORE MILK[2]

Thanks to the unique combination of two research-based programs (INITIATE and MAINTAIN), Symphony will allow the mother to pump more milk for her baby within the first two weeks[2].

CLINICALLY TESTED AND PROVEN

60+ years of research and trusted by millions of mothers, Symphony is the #1 brand in hospitals[3] and the most recommended pump by midwives and mothers[1].

Did you know?

Symphony can be rented for at home. Make sure all mothers and babies, who need support can get the help they need with Symphony!

Scan the QR code for more information about renting a breast pump.

1 Recommended by midwives for rental. Based on average rating from iConsult survey with 480 midwives in Europe and recommended by mums based on MiBaby survey with 534 mums in Germany, March 2023
2 Meier PP et al. Journal of Perinatology. 2012: 32(2):103-10.
3 Breast pumps – based on distribution in maternity wards and NICUs.

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