

# Human Milk Insights

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*The Human Milk Insights newsletter presents the latest breastfeeding topics and clinical practice solutions, addresses coding issues challenging the lactation community, features a lactation service, and announces upcoming webinars and conferences.*

## CONTRIBUTORS

Cindy Wagner MS, RD, IBCLC  
Education Consultant  
Medela LLC.  
Tuscaloosa, AL.

Maria Lennon, MSN, CNM, IBCLC  
Nurse-Midwife, Perinatal Education  
Consultant  
Sedona, AZ.

Irene M. Zoppi RN, MSN, IBCLC  
Clinical Education Specialist  
Medela, LLC.  
McHenry, IL.

## FEATURED STORIES THIS MONTH

### NEWS YOU CAN USE

- Benefits of Human Milk
- Human Milk Initiation
- Human Milk and Storage
- Human Milk Exclusive Pumping
- Human Milk and NICU
- Human Milk and Organizations
- Human Milk and Conferences

### HUMAN MILK EDUCATION

- Human Milk Monthly Clinical Education Webinar Series
- Online Courses
- Neonatal Perspectives
- Resource for Moms

### CLINICAL PEARLS IN LACTATION

- Have You Heard of LactaPedia?

### TOOLS YOU CAN USE

- New Clinical Tool from University of Western Australia: LactaMap

### SPOTLIGHT ON PRACTICE

- Lori J. Wood, MSN, CNS, RNC-NIC, IBCLC

## NEWS YOU CAN USE

### BENEFITS OF HUMAN MILK

#### **The Effects of Early Nutritional Interventions on the Development of Atopic Disease in Infants and Children: The Role of Maternal Dietary Restriction, Breastfeeding, Hydrolyzed Formulas, and Timing of Introduction of Allergenic Complementary Foods**

Clinical report from AAP on the role and impact of breast milk and hydrolyzed formula on infants and children. It also discusses the time of introduction of allergenic complementary foods.

[https://pediatrics.aappublications.org/content/143/4/e20190281?utm\\_source=highwire&utm\\_medium=email&utm\\_campaign=Pediatrics\\_etoc](https://pediatrics.aappublications.org/content/143/4/e20190281?utm_source=highwire&utm_medium=email&utm_campaign=Pediatrics_etoc)

#### **A Pilot Study of Human Milk to Reduce Intestinal Inflammation After Bone Marrow Transplant**

This study published in *Breastfeeding Medicine* concluded that administration of human milk resulted in decreased markers of intestinal inflammation after bone marrow transplants in children 0-5 years.

<https://www.liebertpub.com/doi/full/10.1089/bfm.2018.0199>

### HUMAN MILK INITIATION

#### **Video on Breastfeeding Initiation Risk Factors**

A 25-minute video for clinicians and hospital staff by Dr. Diane Spatz, PhD, RN-BC, FAAN that highlights breastfeeding initiation factors in available from Medela Education.

<https://blog.neonatalperspectives.com/2019/04/23/breastfeeding-initiation-risk-factors-video/>

#### **Two Techniques to Express Human Milk: How They Can Be Complements to One Another** - Irene Murphy Zoppi, RN, MSN, IBCLC

Irene Zoppi highlights research on the benefits of using Symphony PLUS® Initiation Technology™ pattern along with hand expression techniques.

<https://blog.neonatalperspectives.com/2019/04/12/two-techniques-to-express-human-milk-how-they-can-be-complements-to-one-another/>

### HUMAN MILK AND STORAGE

#### **CDC Breast Milk Storage and Preparation Guidelines**

The Center for Disease Control and Prevention has updated their webpage on recommended storage and preparation techniques for breast milk in home settings, including a downloadable handout on breast milk storage and preparation for the home setting.

[https://www.cdc.gov/breastfeeding/recommendations/handling\\_breastmilk.htm](https://www.cdc.gov/breastfeeding/recommendations/handling_breastmilk.htm)

#### **The Effect of Deep Freezing on Human Milk Macronutrients Content**

Study in *Breastfeeding Medicine* showed that long-term storage of human milk at -80 C is associated with better fat and energy preservation compared with storage at -20 C.

<https://www.liebertpub.com/doi/abs/10.1089/bfm.2018.0226>

### HUMAN MILK EXCLUSIVE PUMPING

#### **Breastfeeding Without Nursing: “If Only I’d Known More about Exclusively Pumping Before Giving Birth”**

Study from the *Journal of Human Lactation* showed the need for including information and education regarding exclusive pumping in prenatal teaching.

<https://journals.sagepub.com/doi/abs/10.1177/0890334418784562>

## HUMAN MILK AND THE NICU

### Preterm Infants May Better Tolerate Feeds at Temperatures Closer to Freshly Expressed Breast Milk: A Randomized Controlled Trial

Study from *Breastfeeding Medicine* showed that warming enteral feeds close to body temperature may result in better tolerance. <https://www.liebertpub.com/doi/abs/10.1089/bfm.2018.0142>

### Mother's Own Milk: How Does It Differ from Donor Milk for the Baby

Keynote speech at the International Conference on Human Milk Science and Innovation by Dr. Josef Neu on the use of donor milk for infants. <https://www.liebertpub.com/doi/full/10.1089/bfm.2019.0036>

### Prioritizing High-Dose Long Exposure to Mothers' Own Milk During the Neonatal Intensive Care Unit Hospitalization

Presentation at the International Conference on Human Milk Science and Innovation by Dr. Paula Meier on the benefit of high-dose long exposure to mother's own milk in the NICU. <https://www.liebertpub.com/doi/full/10.1089/bfm.2019.0035>

### Can We Feed Our Way Out of BPD? - Jae Kim, MD, PhD

Dr. Jae Kim discusses the role of nutrition in the treatment and prevention of bronchopulmonary dysplasia (BPD). <https://blog.neonatalperspectives.com/2019/04/02/can-we-feed-our-way-out-of-bpd/>

## HUMAN MILK AND ORGANIZATIONS

### World Breastfeeding Week – August 1-7, 2019

The theme for 2019 World Breastfeeding Week is "Empower Parents: Enable Breastfeeding."

<http://worldbreastfeedingweek.org/>

### USDA Systematic Review on Nutrition During Pregnancy and Infancy

USDA released their systematic review on diet and health for pregnant women and infants and toddlers. The research was described in the following article - <https://www.ncbi.nlm.nih.gov/pubmed/30982878>. It included infant milk feeding practices. <https://nesr.usda.gov/project-specific-overview-pb-24-0?eType=EmailBlastContent&eld=741d182a-ee24-4e93-afbc-fbc102da9dfd>

## HUMAN MILK AND CONFERENCES

### AAP Donor Milk Drive Toolkit

AAP developed a toolkit to be used by organizers of conferences/meetings on how to partner with area milk banks to allow mothers who express human milk during the conference to donate the milk to a local milk bank. <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Breastfeeding/Pages/NCEMilkDrive.aspx>

## HUMAN MILK EDUCATION

### Human Milk Webinar

On Wednesday, May 15th, [Caroline Steele, MS, RD, CSP, IBCLC, FAND](#) will be presenting [Safe Handling of Human Milk within the Healthcare Setting](#). Complimentary registration is now open! For more information or to register, visit [www.MedelaEducation.com](http://www.MedelaEducation.com).

On Wednesday, June 19<sup>th</sup>, [Danielle Prime, PhD](#) will be presenting [Creating a New Standard Breast Shield: How the Breast Shield Flange Can Improve Milk Flow During Pumping](#). Complimentary registration is now open! For more information or to register, visit [www.MedelaEducation.com](http://www.MedelaEducation.com).

Feel free to email [education@medela.com](mailto:education@medela.com) for a copy of the 2019 webinar schedule.

### **Online Course**

Learn how mothers' milk volumes are initiated, built and maintained throughout the breastfeeding journey. The normal progression of human lactation is described, along with normal infant sucking patterns. A review of lactation risk factors is presented by examining current research. Proactive interventions that can positively impact lactation success are included in the presentation. Click on the link below and use promo code **HMIEH4W7M** to register for the [Initiation of Lactation: At Risk Mothers and Proactive Interventions](#) course.

[Connecting the Dots Between Increasing Lactation Risk Factors and Suboptimal Breastfeeding Outcomes: A Proactive Approach to Clinical Practice](#) details how mothers' milk volumes are initiated, built, and maintained throughout the breastfeeding journey. The 2017 WHO guidelines that update the original 10 Steps to Successful Breastfeeding and their implications for practice changes in birthing facilities are examined. Recent discoveries in lactation science that link infant behavior and maternal physiology to long-term breastmilk production are presented. A review of significant maternal health risk factors and trends associated with delayed onset of lactogenesis and/or suboptimal milk production are discussed. Evidence-based technologies and strategies that can positively impact lactation outcomes and integrate current WHO guidelines into clinical practice are offered in the presentation. Click on the title of the course to register and use promo code **HMIqT6XAf** to receive \$15 off the registration fee.

### **Neonatal Perspectives**

Neonatal perspectives is a blog for NICU professionals that features clinical information from neonatal consultants, industry news and popular topics. Click [here](#) to read the latest blogs.

### **Education Tools**

Medela offers a variety of tools that healthcare professionals can share to assist mothers with their breastfeeding journey while helping them meet their breastfeeding goals.

<http://www.medelabreastfeedingus.com/for-professionals/healthcare-professional-information>

## CLINICAL PEARLS IN LACTATION

*This column is for lactation practitioners to share clinical challenges and successes, observations and pearls with colleagues. To share a clinical pearl, [submit it here](#). If your submission is selected for publication in a future issue of Human Milk Insights, you will receive a \$25.00 VISA gift card.*

### HAVE YOU HEARD OF LACTAPEDIA?

You've probably used or at least have heard of an encyclopedia, and you've probably recently read something online from Wikipedia, but have you heard of **LactaPedia**? Well, yes, **LactaPedia** exists and can be extremely helpful to those who work in the lactation field, especially when conducting research, studying the science of lactation or writing for publication.

It wasn't all that long ago - as late as the 1990's - that there was a dearth of "good" studies in the literature regarding breastfeeding and breastfed babies. Conclusions of many studies that existed were not able to add much to the body of lactation knowledge, nor were applicable to clinical practice because there was no consistent definition of "*breastfeeding*". In other words, in some studies "*breastfeeding*" could mean that babies fed at the breast exclusively, or perhaps could have fed at the breast only once. It could mean that babies were most often breastfed, but some were supplemented with infant formula. In some studies, the term "*breastfeeding*" included a combination of all the definitions!

Now there is **LactaPedia** – A Glossary of Lactation for Science and Medicine, a freely accessible online resource towards consistent and research-based terminology for human lactation.

The Family Larsson-Rosenquist Foundation and The University of Western Australia launched the first version at [www.LactaPedia.com](http://www.LactaPedia.com) in celebration of 2018 World Breastfeeding Week. It is intended to eliminate inconsistencies in terminology – which often lead to inconsistencies in understanding – of breastfeeding and breast milk. Although it is primarily targeted towards scientists, medical and healthcare professionals, it will be available to the public as well.

In LactaPedia, you will find the definition of many terms that are unique to the field of lactation study and management, such as: Feedback Inhibitor of Lactation, Fresh Milk, Secretory Activation (formerly known as Lactogenesis II), Montgomery's Glands, Baby-Led attachment, and breast milk transfer measurement, to name just a few.

Terms are included if they have a clear link to the medical or scientific understanding of human lactation. Objective terms that are quantifiable are preferred (e.g. slow weight gain versus failure to thrive, pre-feed milk instead of foremilk, etc.). Terms are defined using the perspective of normal function of mother and infant. Layman's terms are usually avoided, as are acronyms, medications, and medical diagnoses that need no modification to the definition when they occur concomitantly with human lactation. The reader is invited to comment on terms and discuss the content of **LactaPedia** within the context of the scope.

**LactaPedia** was developed at UWA by Senior Research Fellow Melinda Boss and Emeritus Professor Peter Hartmann. The first version was compiled by researchers at The University of Western Australia and reviewed by 5 international experts in the field of human lactation.

“While this is a very good start, the intention is for **LactaPedia** to stimulate discussion towards a common international standard of lactation terms via input from users. Anyone can register and join the online forums to comment, critique terms or suggest new ones. Framework to handle this user input, which includes expert editorial review, is in the process of development and annual updates of terminology are planned.”

See for yourself at [www.LactaPedia.com](http://www.LactaPedia.com). Check the terms you use in your practice and see what the working definitions are. There's lots of new and exciting progress being made in the field of lactation . . . so be sure to be part of it!

**Citation:** LactaResearch Group. LactaPedia [Internet]. Boss M, Hartmann P, editors. Zug (CH): Family Larsson-Rosenquist Foundation; 2018 [cited 2019 04 27]. Available from: <https://www.lactapedia.com/>.

## TOOLS YOU CAN USE

### New Clinical Tool from University of Western Australia: LactaMap

In the Clinical Pearls column, we talked about LactaPedia. Here's some more good news: a new clinical tool has just been released by the Family Larsson-Rosenquist Foundation and the University of Western Australia. LactaMap is a new clinical tool to help medical practitioners resolve lactation challenges and support breastfeeding mothers.

Under the leadership of Senior Research Fellow Melinda Boss and Emeritus Professor Peter Hartmann, this online resource tool was researched and developed by the **LactaResearch Group** at UWA. **LactaMap** is designed to further the understanding of human lactation, ensure that breastfeeding mothers receive consistently correct care, and to prevent dissemination of conflicting advice. **The LactaResearch Group** aims to support effective lactation by translating lactation research directly into clinical practice.

As a new practice tool, **LactaMap** is an online comprehensive lactation care support system designed to provide the evidence-based information medical practitioners need to support their care of women and infants experiencing breastfeeding difficulties. It contains over 100 evidence-based clinical practice guidelines presented in a decision tree format for ease of use during a clinical consultation. Also included is information related to normal function, the **LactaPedia** (a glossary of lactation terms for science and medicine), and 21 information sheets that can be printed or e-mailed to patients.

The content for **LactaMap** has been developed over 10 years by a multidisciplinary team of researchers and health professionals including physicians, pediatricians, midwives, lactation consultants, and pharmacists based at The University of Western Australia.

This state-of-the-art clinical lactation tool is free to use and accessible to medical practitioners in any country. Currently, **LactaMap** is accessible online at [www.lactamap.com](http://www.lactamap.com) and will soon be available as an app.

Take a look at the **LactaMap Facebook**: <https://www.facebook.com/LactaResearchGroup/>

Check out this short video to see how **LactaMap** works: <https://vimeo.com/325819841>.

## SPOTLIGHT ON PRACTICE

This column is for lactation practitioners and facilities who wish to acknowledge the work of others. We invite you to submit suggested practitioners or facilities you would like to spotlight. If you have a suggestion, email [education@medela.com](mailto:education@medela.com).

*This month we are spotlighting Lori J. Wood MSN, CNS, RNC-NIC, IBCLC  
Desert Regional Medical Center, Palm Springs, CA*

Lori Wood always knew she wanted to pursue a career in healthcare. As a young girl growing up in Southern California, she was fascinated with the delivery of healthcare. She recalls practicing first aid on her dolls and stuffed animals by building tourniquets and bandages to treat their 'wounds'. After volunteering at a local hospital in high school and witnessing the special care nurses delivered, she realized being a nurse was the career choice for her.

Lori's first position as a graduate nurse was in a newborn nursery and step-down Special Care nursery, providing direct patient care, family education, and extensive discharge teaching and preparation. She transferred to a NICU setting as a bedside clinician in a Level IV Tertiary Center that cared for fragile and ELBW infants. Here, she participated in research for high frequency jet ventilators, surfactant administration, kangaroo mother care, and various medication trials. Lori served as the Patient Care Coordinator for a 72-bed Level IV NICU, where she taught families about breastfeeding and served as a member of the Quality Improvement Committee.

Lori was a frequent visitor to nearby Palm Springs. Though she loved the area, she didn't consider relocating as no NICUs existed nearby. After one vacation trip, she learned the local hospital, Desert Regional Medical Center, was opening a NICU at their facility. Not only did Lori move to the city, she helped begin the hospital's journey to becoming a Level III NICU. Today, they are a major referral NICU serving many hospital facilities located in remote areas.

Desert Regional Medical Center has been on the cutting edge of many evidence-based treatment modalities for NICU infants. They were one of the first hospitals in California to implement oral colostrum care, became BFHI certified in 2010, have implemented a regime of exclusive human milk diets for their fragile infants, and are partnering with two other nearby Tenet facilities to become a Milk Depot for the state of California. Lori has been a vital part of this growth. She says, "As a nurse, I have helped Desert Regional Medical Center grow and I know the Center has helped grow me."

Lori has extensive experience presenting at local and national conferences on the value of human milk for fragile infants, oral colostrum care, infant-driven feedings, the effects of increased BMI on breastfeeding and breast milk production, and effecting change within the NICU setting. She has published articles on similar topics for NICU publications and written chapter revisions about newborn and NICU care. She is a current member of Inland Counties Association of Neonatal Nurses (ICANN), serving in various board positions since 2012 including as the association's president. Lori has been active in Boy Scouts for 12 years and participates in multiple scout activities, including providing health screenings and exams.

Lori and her husband Mark have been married for nearly 20 years. Together, they have 3 sons, all of whom enjoyed competitive swimming. Lori and Mark will become 'empty-nesters' this fall when their youngest begins a Baccalaureate nursing program. As a family, they enjoy being

outdoors, camping, and hiking in remote regions like the Colorado Rocky Mountains. This is an adventurous family who enjoys off-roading to remote regions of California and even has pictures standing in the San Andreas Fault located close to Palm Springs.

Lori's devotion to the health and well-being of premature infants has been a lifelong calling. She says she has been blessed to support families while caring for their fragile infants. As a Clinical Nurse Specialist, she has been instrumental in developing professional practice standards, spearheading quality improvement projects, conducting research, and planning and delivering educational programs for the NICU. This year, the NICU at Desert Regional Medical Center will celebrate its thirtieth anniversary. As one of the units' original staff members, Lori has made an indelible impact on its success and future. Kudos to the woman who envisioned becoming a nurse and succeeded in becoming a dynamic resource for her unit and many, many families.