

Debbie Albert, PhD, BSN, IBCLC

Milk Supply Triage... or What's Going on with My Milk Supply?

With the increasing percentage of high risk infants who survive, and the increasing number of women who have to work, the laws of supply and demand get a bit jostled at times. Be prepared for an interactive program that will help you get to the bottom of milk supply dilemmas.

Learning Objectives:

1. Participants will be able to explain milk supply and health, social, and environmental factors that effect the development of milk supply.
2. Through case study group process, participants will be able to list factors effecting milk supply, and prepare treatment recommendations.
3.
4. Participants will list at least 2 new milk supply factors that they were not knowledgeable about.

Program Content:

A. Development of Milk Supply

1. Quick Review of Hormonal Development of Milk Supply
 - a. Lactogenesis I
 - b. Lactogenesis II
 - c. Lactogenesis III
 - d. Protein inhibitor
 - e. Prolactin receptors
 - f. Storage capacity
 - g. Research

B. Factors effecting Milk Supply

1. Health
 - a. Maternal
 - 1) Birth
 - 2) Basic maternal health
 - 3) Obesity
 - 4) Metabolic syndrome
 - 5) Anatomical issues
 - 6) Medications
 - 7) Psychological factors
 - b. Infant
 - 1) Birth/ gestational age
 - 2) Basic infant health
 - 3) Anatomical issues
 - 4) Psychological factors

2. Social factors
 - a. Family
 - b. Culture
 - c. Society
 - d. Medical community
 - e. Mother's workplace
3. How Factors Combine
 - a. Prioritizing issues
 - b. Dealing with the psychological aspects
 - c. Family support or lack of support
 - d. Financial issues
 - e. Cases that are difficult or impossible to resolve

C. Case Studies (group process)

Group will be divided into five groups and each group will have two complicated lactation cases to discuss and review. Each group will have a chance to report back to the larger group for further analysis and discussion.

D. Review and Discussion

Bibliography

Cox DB, Owens RA, Hartmann PE. [Studies on Human Lactation: The Development of the Computerized Breast Measurement System](#). June 1998. Retrieved from <http://mammary.nih.gov/reviews/lactation/Hartmann001/index.html> on February 28, 2015.

Cox DB, Owens RA, Hartmann PE. [Blood and milk prolactin and the rate of milk synthesis in women](#). Exp Physiol. 1996 Nov;81(6):1007-20.

Cregan MD, Mitoulas LR, Hartmann PE. [PDF Milk prolactin, feed volume and duration between feeds in women breastfeeding their full-term infants over a 24 h period](#). Exp Physiol. 2002 Mar;87(2):207-14.

Hartmann PE, Owens RA, Cox DB, Kent JC. Breast development and control of milk synthesis. Tokyo, Japan: United Nations University Press; 1996 Dec. 17(4).

Ingram J, Woolridge M, Greenwood R. Breastfeeding: it is worth trying with the second baby. Lancet. 2001 Sep 22;358(9286):986-7.

LLLI. The Breastfeeding Answer Book March 2012 Update. Retrieved from http://www.llli.org/docs/0_babupdate/01babupdatefull.pdf on March 2, 2015.

Marasco L, Barger J. Cue Feeding: Wisdom and Science. Breastfeeding Abstracts. 1999 May;18(4):28-29

Mohrbacher N, Stock J. The Breastfeeding Answer Book. Third Revised Edition. Schaumburg, Illinois: La Leche League International; 2003. 16-23.

Neville MC, Morton J. Physiology and endocrine changes underlying human lactogenesis II. J Nutr. 2001 Nov; 131(11): 3005S-8S.

Neville MC. Anatomy and physiology of lactation. Pediatr Clin North Am. 2001 Feb; 48(1): 13-34.

Neville MC, Morton J, Umemura S. Lactogenesis. The transition from pregnancy to lactation. Pediatr Clin North Am. 2001 Feb; 48(1): 35-52.

Peaker M, Wilde CJ. Feedback control of milk secretion from milk. J Mammary Gland Biol Neoplasia. 1996 Jul;1(3):307-15.

Perez-Escamilla R, Chapman DJ. Validity and public health implications of maternal perception of the onset of lactation: an international analytical overview. J Nutr. 2001 Nov;131(11):3021S-4S.

Ramsay D, Kent J, Hartmann R, Hartman P. Anatomy of the lactating human breast redefined with ultrasound imaging. *Journal of Anatomy*. 2005;206(6):525-534.

Ramsay DT, Kent JC, Owens RA, Hartmann PE. Ultrasound imaging of milk ejection in the breast of lactating women. Pediatrics. 2004 Feb;113(2):361-7.

Smith, L. How mother's milk is made. Retrieved from
<http://www.lalecheleague.org/lleaderweb/lv/lvjunjul01p54.html> on February 28, 2015.

Vickers, M. Finish the first breast first. Retrieved from
<http://www.lalecheleague.org/lleaderweb/lv/lvsepoct95p69a.html> on January 9, 2015.

Walker M. Physiology of the Breast During Pregnancy and Lactation. In: Walker M, editor. Core Curriculum for Lactation Consultant Practice, Burlington, Massachusetts: Jones and Bartlett; 2007. 27-34.

Watson Genna, C. Supporting sucking skills in breastfed infants. Burlington, Massachusetts; Jones and Bartlett; 2012. 359-399.

Wambach, K, Riordan, J. Breastfeeding and human lactation (5th ed). Burlington, Massachusetts; Jones and Bartlett; 2015. 359-399.