

At-Risk Conditions

That Impact Breastfeeding Initiation

There are **9 specific at-risk conditions** to consider before and after birth that may **impact breastfeeding or human milk production success**. By addressing these conditions early, healthcare teams will be in a better position to support women in their breastfeeding journey.



Lactogenesis I (Secretory Differentiation):

This stage occurs during pregnancy and initiates mammary gland synthetic capacity



Lactogenesis II (Secretory Activation):

This stage occurs after delivery and initiates plentiful milk secretion

9 At-Risk Conditions That May Contribute to Milk Production Delays



These 4 at-risk conditions during pregnancy may contribute to postpartum milk production delays:

1



Primiparity, especially older mothers:
The mean age of first birth mothers rose from 24.9 years in 2000 to 26.3 in 2014

2



Maternal Obesity:
23.4% of women are obese before becoming pregnant

3



Diabetes:
The prevalence of gestational diabetes mellitus (GDM) in the United States may be as high as 9.2%

4



Hypertension:
Hypertension is the most common medical problem encountered during pregnancy, complicating 10% of pregnancies

Additional complications include a history of breast surgery and breast hypoplasia.

These 5 at-risk and postpartum conditions may contribute to milk production delays:

5

Unscheduled cesarean section

The United States cesarean section rate has been reported to be 31.1%. Nearly half were unscheduled.

6

Stressful labor and delivery

8

Low perinatal breastfeeding frequency

7

Prelacteal feeds; delayed first breastfeed episode

9

Psychosocial stress/pain



Additional complications include nipple discomfort and elevated cortisol concentrations in the mother and the fetus

4 Steps to Combat At-Risk Conditions in the Hospital



1. Outline a breastfeeding/human milk plan of action for your hospital

How will mothers be attended to, depending on their condition? Which departments will be accountable for providing education, tools, resources, and follow-up?



2. Perform a clinical lactation assessment on maternity patients

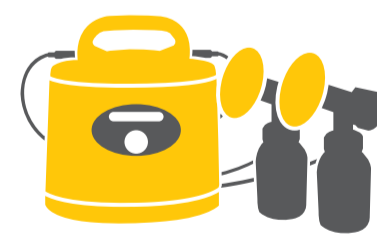
Keep this pre-birth assessment on record to prepare future clinical providers and hospital units for a patient's initial breastfeeding experience and beyond.



3. Educate hospital staff

Share the stages of lactogenesis, delayed lactogenesis, and the milk production process.

Find resources and webinars available at <http://www.medelabreastfeedingus.com/for-professionals>.



4. Prepare hospital units with the proper breastfeeding support tools

Hospital-grade (multi-user) breast pumps with initiation technology and breast pump kits can combat delayed lactogenesis when applied immediately after birth. When the above at-risk conditions are present, it will be likely that these tools will be necessary to enable mothers to begin a successful breastfeeding journey.

“A **“wait and see”** approach may result in a **delay** in appropriate **interventions** of early **breastfeeding problems**.²”

1 Hartmann P, Cregan M. Lactogenesis and the effects of insulin-dependent diabetes mellitus and prematurity. *J Nutr* 2001; 131:3016S-20S

2 Hurst, NM. "Recognizing and treating delayed or failed lactogenesis II," *JD Midwifery Women's Health* (2007) Nov-Dec;52(6): 588-94

3 Nommsen-Rivers, et al. "Delayed onset of lactogenesis among first-time mothers is related to maternal obesity and factors associated with ineffective breastfeeding." *Am J Clin Nutr* 2010; 92:574-84

4 "Mean Age of Mothers Is On the Rise: United States 2000 – 2014." CDC, accessed May 23, 2017. <https://www.cdc.gov/nchs/data/databriefs/db232.htm>

5 "The State of Obesity: Prenatal and Maternal Health." State of Obesity, accessed May 23, 2017. <http://stateofobesity.org/prenatal-maternal-health/>

6 "Gestational Diabetes Prevalence High, CDC Says." Medscape, accessed May 23, 2017. <http://www.medscape.com/viewarticle/827315>

7 "Hypertension and Pregnancy." Medscape, accessed May 23, 2017. <http://emedicine.medscape.com/article/261435-overview>

8 "An Attempt to Control the Increasing Trend of Cesarean Section." Medcrave, accessed May 23, 2017. <http://medcraveonline.com/OGIU/OGIU-05-00178.php>

9 Meier, et al. "Which breast pump for which mother: An evidence-based approach to individualizing breast pump technology." *J Perinatol*. 2016, July; 36(7): 493 – 499. Doi: 10.1038/jp.2016.14