

Factors leading to diabetes may contribute to milk supply problems for new mothers

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New studies provide fresh evidence that the same factors that lead to diabetes contribute to low milk supply in some new mothers.

In a study to be presented May 5, Cincinnati Children's Hospital Medical Center researchers discovered that problems with mothers' insulin metabolism may affect their milk production. The study found that [women](#) diagnosed with low milk supply were 2.5 times more likely to have experienced [gestational diabetes](#) compared to women seen at the clinic solely because their infants were having problems latching onto the breast.

"We need to better understand how we can identify mothers at risk for low milk supply and how best to support them in meeting their breastfeeding goals," says Sarah Riddle, MD, a pediatrician at the Center for Breastfeeding Medicine and lead author of the study. "We also need to develop targeted therapies to support lactation success in women with a history of glucose intolerance."

The study, conducted among 561 women seeking help for a breastfeeding problem at Cincinnati Children's Breastfeeding Medicine Clinic, will be presented at 4:15 p.m. Pacific time Monday, May 5, at the annual meeting of the Pediatric Academic Societies in Vancouver, Canada.

In a separate study presented on April 27 at the Experimental Biology annual meeting in San Diego, Laurie Nommsen-Rivers, PhD, a

researcher at the Cincinnati Children's Perinatal Institute, showed that postpartum metabolic health also affects lactation sufficiency – even among women who did not experience diabetes in pregnancy. She found that elevated body mass index, elevated fasting insulin, insulin resistance and, especially, elevated fasting plasma glucose in the pre-diabetic range, were all predictors of insufficient milk supply in women attempting to exclusively breastfeed.

Dr. Nommsen-Rivers is senior author of both of these new studies.

"The single most important factor in building a strong milk supply is frequent and thorough [breastfeeding](#) beginning at birth," she says. "This is why it is so important for maternity hospitals to adopt the [Ten Steps to Successful Breastfeeding](#). However, one consequence of the obesity epidemic is that nearly one out of every four reproductive-aged women is pre-diabetic. Research to inform how to support lactation success in this vulnerable group of women is urgently needed."

Dr. Nommsen-Rivers and Dr. Riddle are planning to conduct a clinical trial of metformin, a drug used to control blood sugar in type 2 diabetes. They hope to determine whether metformin, by improving insulin action in the mammary gland, will boost milk production in pre-diabetic mothers diagnosed with low milk supply.

Provided by Cincinnati Children's Hospital Medical Center

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