# With Help, Diabetic Mothers Can Breast-Feed

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Offering women with type 1 diabetes support to breast-feed their newborns led to similar rates of breast-feeding among diabetic and nondiabetic women at 4 months after delivery despite high rates of morbidity in infants born to diabetic mothers, a Danish study found.

Exclusive breast-feeding is recommended for the first 4-6 months of life for all infants. Some previous reports have suggested that diabetic women may resort to early weaning because of fluctuating maternal blood glucose values and frequent episodes of symptomatic hypoglycemia.

In the current study, 86% of 102 diabetic mothers were breast-feeding 5 days after delivery, despite anticipated difficulties in initiating breast-feeding because of infant morbidities, reported Edna Stage, R.N., and her associates.

It is the largest prospective study of nursing mothers with type 1 diabetes.

Four months after delivery, 54% of the diabetic mothers were exclusively breast-feeding, compared with 50% of 9,654 randomly selected Danish women interviewed in a separate study on lactation. Among the diabetic mothers, 14% were partly breast-feeding 4 months after delivery and 32% were not breast-feeding, compared with 26% and 24%, respectively, of the control group of mothers. Neonatal morbidity occurred in 25 (45%) of 55 infants who were still exclusively breast-feeding at 4 months and in 30 (73%) of 47 infants who were not exclusively breast-feeding by 4 months, said Ms. Stage of Copenhagen University Hospital and her associates (Diabetes Care 2006;29:771-4).

Neonatal morbidity was defined as a need for continuous positive airway pressure for more than 1 hour, antibiotic treatment, IV glucose, or phototherapy.

Previous experience breast-feeding increased sixfold the likelihood of long-term exclusive breast-feeding among the diabetic mothers, and higher educational levels (more than 10 years of school) increased the likelihood sevenfold, the investigators said.

Trends toward less success in long-term breast-feeding among diabetic mothers who smoked, or who had a nonvaginal delivery, did not hold up as independent predictors after multiple logistic regression analysis. The small number of smokers in the study may have reduced the odds of finding an association between smoking and lactation, an association identified in previous studies.

**During pregnancy, the diabetic women were offered prenatal classes with information on breast-feeding and a visit to the neonatal intensive care unit.**

The investigators studied all women with type 1 diabetes delivering consecutively at the hospital from May 2001 to February 2003. The results did not include two women who did not want to participate, two who were not invited to participate because of an investigator's vacation, and one woman who could not be identified 4 months after delivery.

During pregnancy, the diabetic women were offered prenatal classes with information on breast-feeding and a visit to the neonatal intensive care unit. In addition, a diabetes nurse specialist offered individual counseling on the benefits of breast feeding and described the possibility of using a breast pump if the infant's ability to suck was impaired.

Neonates stayed with their mothers for the first 2 hours of life, and 47% first nursed during this time. They then were admitted to the neonatal intensive care unit for 24 hours, where they received artificial feedings of mother's milk or low-immunogen formula milk, mainly by nasogastric tube, every 3 hours to prevent hypoglycemia. During that time, they also averaged two breast-feedings. Severe hypoglycemia in 30% of infants was treated with IV glucose.

The rate of breast-feeding during this early period might have been improved if the mothers had been allowed to sleep near the infants in the neonatal ICU, the investigators suggested.

"We believe that the [prenatal] classes and individual counseling about benefits and difficulties in initiating breast-feeding offered to the women were valuable," Ms. Stage and her associates wrote. ■