

Breastfeeding protects women from metabolic syndrome, a diabetes and heart disease predictor

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Breastfeeding a child may lower a woman's risk of developing Metabolic Syndrome, a condition linked to heart disease and diabetes in women, according to a Kaiser Permanente study that was published today online ahead of print and will appear in the February issue of *Diabetes*. The protective association was even stronger for women who had gestational diabetes during pregnancy, according to the study's lead author, Erica Gunderson, PhD, an epidemiologist and research scientist at Kaiser Permanente's Division of Research in Oakland, Calif.

Breastfeeding a child lowers risk by 39 to 56 percent (depending on the duration of breastfeeding) for women without gestational diabetes, and 44 to 86 percent (depending on the duration of breastfeeding) for women with gestational diabetes, researchers said. Investigators looked at durations that included 0-1 month of lactation up to greater than 9 months of lactation.

Previous research has shown that lactating women have more favorable blood levels of glucose and lipids within several weeks after delivery than women who were not lactating. Other studies have reported much weaker protective associations of breastfeeding with the presence of [Metabolic Syndrome](#) and diabetes in middle-aged and older women.

Funded by the U.S. National Institutes of Health, this 20-year prospective study is the first to measure all components of Metabolic

Syndrome both before pregnancy and after weaning in women of childbearing age, enabling researchers to examine breastfeeding in relation to new onset of Metabolic Syndrome, explained Gunderson.

“The findings indicate that breastfeeding a child may have lasting favorable effects on a woman’s [risk factors](#) for later developing diabetes or [heart disease](#),” she said, explaining that the benefits don’t appear to be due to differences in weight gain, physical activity, or other health behaviors. However, in this study, less belly fat and higher levels of good cholesterol (HDL-C) were characteristic of women who did not develop Metabolic Syndrome, Gunderson said.

Among the 704 women who were aged 18 to 30 years at enrollment, had never previously given birth and were free of Metabolic Syndrome before all their pregnancies, there were 120 new cases of Metabolic Syndrome after pregnancies during 20 years of follow-up.

“The Metabolic Syndrome is a clustering of risk factors related to obesity and metabolism that strongly predicts future diabetes and possibly, coronary heart disease during midlife and early death for women,” Gunderson said.

“Because the Metabolic Syndrome affects about 18 to 37 percent of U.S. women between ages 20-59, the childbearing years may be a vulnerable period for its development. Postpartum screening of risk factors for diabetes and heart disease may offer an important opportunity for primary prevention.”

Recent studies suggest a stronger link between Metabolic Syndrome to diabetes than coronary heart disease.

Another recent Kaiser Permanente study by Gunderson published in the *American Journal of Obstetrics and Gynecology* in August 2009 found

that women with gestational diabetes are 2.5 times more likely to develop Metabolic Syndrome after pregnancy.

Gunderson explained that further research is needed to learn more about the mechanism(s) through which lactation may influence risk of cardiovascular disease or diabetes. Further research also is needed to learn about whether lifestyle modifications, including lactation duration, may affect development of coronary artery disease and type 2 diabetes, particularly among high-risk groups, such as [women](#) with a history of [gestational diabetes](#).

More information: <http://dx.doi.org/10.2337/db09-1197>

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