

Breastfeeding may help mothers avoid type 2 diabetes

June 15 2023



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Breastfeeding can improve the number of insulin-producing cells in the pancreas and increase insulin sensitivity in mothers, helping to protect them against type 2 diabetes in later years, suggests a mice study

presented Thursday at ENDO 2023, the Endocrine Society's annual meeting in Chicago, Ill.

Many previous studies in women have shown that prolonged breastfeeding lowers a mother's subsequent lifetime risk for type 2 diabetes, but the reason for this is unknown, said lead researcher Julie Hens, Ph.D., of Yale University in New Haven, Conn.

The researchers designed the study to compare the [metabolic effects](#) of breastfeeding versus non-breastfeeding, and to study changes in metabolism that are the result of lactation.

They studied [mice](#) who became pregnant and delivered their pups and split them into two groups—those that nursed and those whose pups were removed immediately after birth. Mice in the lactating group were then studied a month after the [pups](#) were weaned and were compared to aged-matched mice that had delivered but not nursed.

The study found that the non-lactating mice and lactating mice had similar body weights overall. However, the non-lactating mice had an increase specifically in a type of metabolically active fat analogous to the [visceral fat](#) in humans that is well known to increase the risk of developing diabetes.

Mice that did not lactate had fewer insulin-producing cells in their pancreas. Having fewer of these cells means the body has less reserve of insulin production, which might contribute to an increased risk of developing diabetes. Mice that did not lactate also had more [insulin resistance](#), which occurs when cells in the muscles, fat and liver do not respond as they should to insulin. Over time, this can stress the insulin-producing cells, causing them to fail and leading to diabetes.

"It's often assumed that nursing leads to a lower risk of diabetes because

it is associated with [weight loss](#), which improves metabolism. However, studies in women have shown that this protective effect is independent of weight loss. Our study in mice also corroborates these findings and suggests that the protective effect of nursing may be related to effects both to increase the reserves of insulin-producing cells and to lessen whole body resistance to the effects of insulin," Hens said.

More information: Conference livestream at endomediastream.com.

Provided by The Endocrine Society

Citation: Breastfeeding may help mothers avoid type 2 diabetes (2023, June 15) retrieved 12 May 2024 from <https://medicalxpress.com/news/2023-06-breastfeeding-mothers-diabetes.html>

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