

# Healthy diet may reduce high blood pressure risk in pregnancy-related diabetes

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Women with pregnancy-related diabetes (gestational diabetes) are at greater risk of developing high blood pressure later in life; however, a healthy diet may significantly reduce that risk, according to new research in the American Heart Association's journal *Hypertension*.

Researchers studied 3,818 women with a history of pregnancy-related diabetes enrolled in the Nurses' Health Study II as a part of the ongoing Diabetes and Women's Health Study. Over 22 years of follow-up, 1,069 women developed [high blood pressure](#), which in turn increased their risk of having a heart attack or stroke.

Researchers found:

- Women who continually adhered to a healthy diet were 20 percent less likely to develop high [blood pressure](#) compared to those who did not maintain a healthy diet.
- Increase in body mass index explained around 20-30 percent of the association between lower healthy dietary pattern scores and increased risk of hypertension.

"Our earlier research showed that diabetes in pregnancy increased a woman's risk of developing hypertension, even 16 years after giving birth," said Cuilin Zhang, M.D., Ph.D., senior study author and senior investigator at the Eunice Kennedy Shriver National Institute of Child Health and Human Development in Rockville, Maryland. "Our current study shows that a healthy diet, which has been proven to reduce high

blood pressure risk in the general population, appears to be equally effective in reducing the risk in this group of high risk women."

Study participants completed a questionnaire about their diets every four years. Researchers matched responses to three healthy diets: the Alternative Healthy Eating Index, the alternative Mediterranean diet and the Dietary Approaches to Stop Hypertension (DASH). The three diets share important similarities: eating fruits and vegetables, fish, legumes and whole grains while reducing red meat, salt and processed meat.

Study results were adjusted for many factors that could bias results, including smoking, level of physical activity, race/ethnicity, oral contraceptive use, family history of high blood pressure and weight. Women with a greater adherence to a healthy diet were less likely to be current smokers and more likely to be moderate alcohol drinkers, eat more cereal fiber, be more physically active and less likely to consume trans-fat.

Lower weight gain appeared to contribute to some of the reduced risk of developing high blood pressure in women on a healthy diet, but a [healthy diet](#), regardless of weight gain or loss, still offered protection against high blood pressure.

"While the majority of these women's glucose levels will return to normal after delivery, our study should serve as an early warning signal," Zhang said, adding that the pregnancy complication is usually treated by advising women to reduce calories, particularly those that come from carbohydrates, and increase exercise. Physicians and other healthcare providers should also encourage these mothers to continue these healthy practices after delivery.

The Nurses' Health Study II began in 1989 with funding from the National Institutes of Health. Study limitations include participants who

are mainly white and educated. Dr. Shanshan Li, the first co-author, said future studies need to examine the association between [gestational diabetes](#), diet and hypertension in minority populations such as Hispanic and African American women, who are at greater risk for high blood pressure.

Provided by American Heart Association

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