

Healthy lifestyle reduces cardiovascular risk after gestational diabetes, study shows

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A history of gestational diabetes was associated with a modest higher long-term risk of cardiovascular disease in women in a new study, although the absolute rate of cardiovascular disease was low in the study's younger group of predominantly white women and adhering to a healthy lifestyle over time appeared to help mitigate the risk, according to a new article published by *JAMA Internal Medicine*.

Gestational diabetes is impaired glucose tolerance in pregnancy. The American Heart Association identifies gestational diabetes as a risk factor for cardiovascular disease in women based on evidence for the relationship between gestational diabetes and markers of cardiometabolic risk, according to study background.

Cuilin Zhang, M.D., Ph.D., M.P.H., of the Eunice Kennedy Shriver National Institute of Child Health and Human Development at the National Institutes of Health, Bethesda, Maryland, and coauthors prospectively examined a history of gestational diabetes and risk of major cardiovascular disease events, including heart attack and stroke, in the Nurses' Health Study II, an ongoing study cohort that began in 1989 by enrolling more than 116,000 female nurses between the ages of 24 and 44. A history of gestational diabetes was captured on the baseline questionnaire and updated every two years through 2001; the primary study outcome of interest was a composite of nonfatal and fatal heart attack (myocardial infarction) and stroke occurring from baseline through the 2013 questionnaire.

There were nearly 90,000 childbearing women eligible to be included in the analysis for the current study and almost 5,300 women (5.9 percent) reported a history of gestational diabetes. New primary cardiovascular disease events occurred in 1,161 childbearing women during almost 26 years of follow-up, including 612 heart attacks and 553 strokes, the authors report.

While a modestly higher risk of cardiovascular disease was associated with a history of gestational diabetes compared to women without, the absolute risk difference was low likely because of the younger age of the study group and the modestly elevated risk appeared to be mitigated by adhering to a healthy lifestyle (for example, a healthful diet, physical activity, not smoking and not being overweight or obese) in subsequent years.

Limitations of the study include a racially/ethnically homogenous study population that precludes addressing the relationship between gestational diabetes and cardiovascular disease in potentially higher-risk minority populations, according to the authors.

"Future data with continuous follow-up of these women are warranted to evaluate longer-term health implications of GD [gestational diabetes] history," the article concludes.

More information: Tobias, DK, et al. Association of history of gestational diabetes with long-term cardiovascular disease risk in a Large Prospective Cohort of US Women. *JAMA Internal Medicine*. DOI: [10.1001/jamainternmed.2017.2790](https://doi.org/10.1001/jamainternmed.2017.2790)

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