

African-American women with gestational diabetes face high long-term diabetes risk

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African American women who develop gestational diabetes mellitus during pregnancy face a 52 percent increased risk of developing diabetes in the future compared to white women who develop GDM during pregnancy, according to a Kaiser Permanente study published online in the journal *Diabetologia*.

African American women are less likely to develop GDM during pregnancy. But for those who were diagnosed of having GDM, their future overt [diabetes risk](#) is the greatest among all race/ethnic groups. Although Asian/Pacific Islander women are much more likely to develop GDM than African American or non-Hispanic [white women](#), their future diabetes risk after GDM is similar to that for non-Hispanic white women, the study found.

"Race and ethnicity should be considered among the risk factors for [type 2 diabetes](#) when physicians and [nurses](#) counsel women about their risk of developing diabetes after a pregnancy complicated by GDM," said study lead author Anny H. Xiang, a senior research scientist at the Kaiser Permanente Department of Research & Evaluation in Pasadena, Calif.

This study of 77,666 ethnically diverse women who gave birth from 1995 to 2009 found that African American women who developed GDM had the highest risk of developing overt diabetes in the future in comparison to women from other racial and ethnic groups. For African American women, their risk of developing diabetes was almost 10 times greater if they had developed GDM during a past pregnancy than if they

did not develop GDM. In comparison, the relative risks were 6.5 times greater for non-Hispanic White women, 7.7 times greater for Hispanic women, and 6.3 times greater in Asian/Pacific Islander women.

GDM is defined as glucose intolerance that typically occurs during the second or third trimester and most prevalent in Asian/Pacific Islanders (17 percent in the study population) and least prevalent in African American women (7 percent in the study population). GDM can lead to complications such as early delivery and cesarean delivery and increases the baby's risk of developing diabetes, obesity and metabolic disease later in life. GDM typically goes away after [pregnancy](#) but risk of overt diabetes in the future is a concern.

"All women diagnosed with GDM should be screened for diabetes soon after their delivery and subsequently at regular intervals. These women would benefit from lifestyle changes such as changes in diet and increases in physical activity that can reduce diabetes risk," Xiang said. "Our study shows that prevention messages, while important to all women who develop GDM, are particularly important for African American women."

This large retrospective matched cohort study used information from the electronic health records for approximately 140,000 women who gave birth in Kaiser Permanente Southern California hospitals to determine whether differences in GDM prevalence by race/ethnicity translate into similar disparities in overt diabetes conversion after GDM.

This study is part of Kaiser Permanente's ongoing research into health disparities in an effort to eliminate them. A Kaiser Permanente study last year in the Journal of General Internal Medicine found that people with diabetes who have limited health literacy are at higher risk for hypoglycemia. Another Kaiser Permanente study last year in the Journal of Community Health found that community intervention can help

American Indian families change behavior related to early childhood weight gain, obesity and behavior change. More information on Kaiser Permanente's health disparities work can be found here:
kp.org/healthdisparities

Based on this new study, researchers cannot determine the reason for the higher [diabetes](#) rates in [African American women](#) after GDM but combinations of genetic, environmental, lifestyle or other factors may contribute to the increased risk.

Provided by Kaiser Permanente

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