

Type 2 Diabetes Risk After Gestational Diabetes

What is the link between Gestational Diabetes Mellitus and type 2 Diabetes?

Gestational Diabetes Mellitus (GDM) is a form of glucose intolerance that is diagnosed during pregnancy. After pregnancy, 5 to 10 percent of women who had GDM are found to have type 2 diabetes. Women who have had GDM have a 20 to 50 percent chance of developing diabetes in the next 5 to 10 years following pregnancy.^{1,2} The children of women with a history of GDM are at an increased risk for obesity and diabetes compared to other children.^{3,4}

What is the prevalence of GDM?

- In the United States, GDM affects about 7 percent of all pregnancies, resulting in more than 200,000 cases annually.²
- Recent reports have noted high or increasing prevalence rates for GDM in various parts of the United States, including:
 - Washington, D.C., where the prevalence rate in Hispanic/Latina women was 12 percent in 2003,⁵ close to the highest rate of 14 percent seen in some American Indian communities.⁶
 - New York City, where the prevalence increased 46 percent from 2.6 percent in 1990 to 3.8 percent in 2002 with the highest prevalence of 11 percent in South and Central Asian women.⁷
 - Colorado, where the prevalence increased 95 percent—from 2.1 percent in 1994 to 4.1 percent in 2002—with increases for non-Hispanic white women 1.7 to 3.1 percent, for Hispanic/Latina women 2.8 to 5.4 percent, and for African American women 3.8 to 5.5 percent. For Asian American women rates decreased from 7.9 to 6.8 percent.⁸
 - Northern California, where the yearly cumulative incidence increased 35 percent from 5.1 percent in 1991 to 6.9 percent in 2000.⁹

Who is at risk?

- Women who have had GDM have a 20 to 50 percent chance of developing diabetes in the next five to 10 years following pregnancy.
- The children of women with a history of GDM are at an increased risk for obesity and diabetes compared to other children.
- GDM occurs more frequently among obese women and women with a family history of diabetes, and among African American, Hispanic/Latina, and American Indian and Alaska Native women.¹

Can the risk be lowered?

Yes, women with a history of GDM can lower their risk for later type 2 diabetes. The Diabetes Prevention Program (DPP) showed that participants randomly assigned to an intensive lifestyle intervention reduced their risk for type 2 diabetes by 58 percent. These individuals lost 5 to 7 percent of their body weight by following a low-fat, low-calorie meal plan and getting 30 minutes of physical activity five days per week. The powerful reduction in risk of diabetes shown in the DPP was found in all subgroups including several hundred women with a history of GDM.¹⁰

What can women with a history of GDM do to delay or prevent type 2 diabetes?

Women who have had GDM need to:

- Get tested for diabetes six to 12 weeks after their baby is born, then every one to two years.
- Talk to their doctor if they plan to become pregnant again.
- Breastfeed to lower their child's risk for diabetes.
- Reach their pre-pregnancy weight six to 12 months after the baby is born. Then, if still overweight, work to lose at least 5 to 7 percent (10 to 14 pounds for a person who weighs 200 pounds) of body weight slowly, over time, and keep it off.
- Eat foods low in fat and calories and get 30 minutes of physical activity, five days a week.
- Help their children lower their risk for type 2 diabetes by learning to make healthy food choices, being physically active 60 minutes a day, and not becoming overweight.
- Encourage their family to follow a healthy lifestyle by eating small portions of healthy foods and moving more.

How can the National Diabetes Education Program help?

The National Diabetes Education Program's (NDEP) *Small Steps. Big Rewards. Prevent type 2 Diabetes.* campaign offers materials that can help women with a history of GDM take steps to prevent or delay type 2 diabetes and help their children lower their risk for the disease:

- ***It's Never Too Early To Prevent Diabetes. A Lifetime of Small Steps for a Healthy Family.*** – a tip sheet for women who have had GDM (English and Spanish).
- ***Lower Your Risk for type 2 Diabetes*** – a tip sheet for children at risk for type 2 diabetes (English and Spanish).
- ***Your GAME PLAN to Prevent type 2 Diabetes*** – a booklet for adults to help women and their families make healthy food choices and be more physically active to prevent or delay type 2 diabetes.

Contact the NDEP to get copies of these materials and to learn more about diabetes prevention: www.ndep.nih.gov or 800-438-5383.

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