

GESTATIONAL DIABETES

A GUIDE FOR EXPECTANT MOTHERS

This fact sheet is not limited to women who are pregnant, it is intended for anyone interested in gaining information on the condition.



Approximately 50% of women who had prior GDM will go on to develop Type 2 Diabetes Mellitus later in life¹.

WHAT IS GESTATIONAL DIABETES?

Gestational Diabetes is defined as any elevation of blood glucose levels that is first recognized during a women's pregnancy and is resolved post-delivery⁴. This condition is the most common medical complication to occur during pregnancy, and prevalence rates have greatly increased over the past two decades⁴.

WHAT ARE POTENTIAL MATERNAL HEALTH OUTCOMES?

- gestational hypertension⁵
- pre-eclampsia⁵
 - gestational high blood pressure and high concentrations of protein in urine
- C-section deliveries⁵
- polyhydramnios⁵
 - too much amniotic fluid around the baby during gestation
- recurrent GDM with future pregnancies⁵

WHAT ARE POTENTIAL FETAL HEALTH OUTCOMES?

- macrosomia⁵
 - increased insulin levels leading to the overgrowth of the fetus due to increased nutrient intake
- preterm delivery⁵
- fetal hypoglycemia⁵
- birthing injuries⁵
 - shoulder dystocia (when during delivery the baby's shoulder gets stuck on the mothers' pelvis)
- NICU admissions⁵
- later development of T2DM⁵



WHO IS MOST AT RISK?

Women who are of...

- higher maternal age (≥ 35 years)²
- are overweight (BMI ≥ 25 kg/m²) or obese (BMI ≥ 30 kg/m²)²
- have a close relative with T2DM
- have high blood pressure or cardiovascular disease (CVD)²
- had prior fetal macrosomia²
- those with polycystic ovarian syndrome (PCOS)³
 - another insulin-resistant syndrome
- minority³
 - as they are two times more likely to develop GDM versus white women³

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LIFESTYLE RECOMMENDATIONS

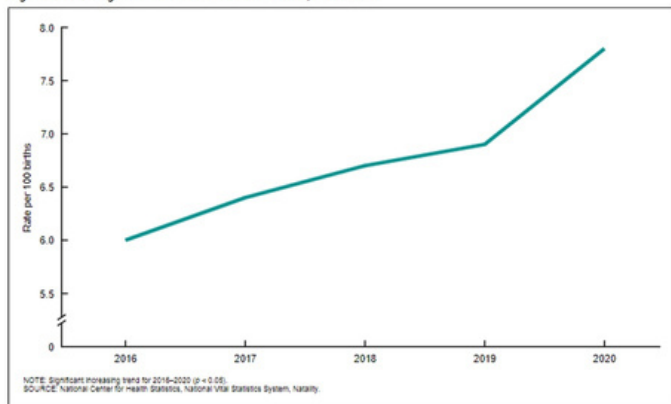
70-85% of women diagnosed with GDM have experienced improved blood glucose concentrations through the implementation of lifestyle modifications that include sufficient nutrient intake and adequate physical activity ⁶.

Recommended Dietary Patterns

- Daily diets should be composed of 20-35% from fats, 45-65% carbohydrates, and 15-20% proteins⁶
- Avoidance of sweets, processed foods, fats, foods high in acidity⁷
- Diets high in Vitamin D are encouraged⁷
- Foods high in fiber⁷



Figure 1. Rate of gestational diabetes: United States, 2016–2020



This figure displays the increasing prevalence of GDM in the United States within just the past 5 years⁵.

Recommended Physical Activity Levels

- Advised to moderately exercise for 30 minutes a day, 5 days a week out of the week⁶
- If that cannot be achieved, it is recommended to take 10-15 light walks after meals and snacks⁶
 - even mild exercise can lead to positive impacts on blood glucose levels⁶

MEDICINAL RECOMMENDATIONS

For women that the above lifestyle strategies are not efficient in reducing blood glucose levels, insulin is then typically administered. However, with the high cost of insulin, oral agents glyburide and metformin are comparable due to their ease of administration and lower costs⁸.

INSULIN

therapy is the safest treatment because it is fully understood to not cross the placenta from mother to fetus and functions to mimic insulin secretion. Insulin functions to decrease blood glucose levels when it gets too high⁸.

GLYBURIDE

functions to increase the secretion of insulin and decrease the production of glucose by the liver. This medication is non-invasive leading to an ease of administration for patients, thus improving patient satisfaction⁸.

METFORMIN

functions to decrease the resistance of insulin in tissues throughout the body. This medication has been proven to lead to minimal maternal weight gain, which is the primary measurement that displays the effectiveness of preventing or delaying the onset of T2DM⁹.

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