

Gestational diabetes: Navigating pregnancy's unexpected challenge.

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Introduction

Pregnancy is a time of joy, anticipation, and wonder. It's a transformative experience as a new life takes shape within a woman's body. However, it can also be a time of heightened medical awareness and, occasionally, unexpected challenges. One such challenge is gestational diabetes, a condition that affects pregnant women and necessitates careful management to ensure both the mother's and baby's health [1].

Gestational Diabetes Mellitus (GDM) is a type of diabetes that develops during pregnancy. It typically appears in the second or third trimester and, in many cases, resolves after giving birth. This condition arises when the body cannot produce enough insulin to meet the increased needs during pregnancy. The hormones produced by the placenta can interfere with the body's ability to use insulin effectively, leading to elevated blood sugar levels. While GDM often disappears after childbirth, it can have significant implications for both the mother and the baby during pregnancy and even beyond. One of the most critical aspects of managing gestational diabetes is early detection through prenatal screenings. Typically, pregnant women are screened for GDM between the 24th and 28th week of pregnancy, although it may occur earlier if certain risk factors are present. Early detection allows healthcare providers to establish a care plan that can help keep blood sugar levels within a healthy range.

The causes of gestational diabetes are multifaceted, involving a combination of genetic and environmental factors. While the exact cause remains the subject of ongoing research, several key contributors have been identified. Maternal obesity is a significant risk factor, as excess body weight can lead to insulin resistance. Additionally, a family history of diabetes, particularly type 2 diabetes, increases the likelihood of developing GDM. Age is another determinant, as women over the age of 25 are at a higher risk. Certain ethnic groups, such as African American, Hispanic, Native American, and Asian American women, have a higher propensity for gestational diabetes. It's important to note that gestational diabetes can occur in women without any of these risk factors. This underlines the importance of universal screening during pregnancy to identify cases early and initiate appropriate management [2].

The consequences of unmanaged gestational diabetes can be significant. For the mother, high blood sugar levels can lead to

complications such as preeclampsia (a potentially dangerous rise in blood pressure during pregnancy), an increased risk of type 2 diabetes later in life, and the need for a cesarean section due to complications during delivery. The baby can also experience complications, including macrosomia (excessive fetal growth), hypoglycaemia (low blood sugar), and respiratory distress syndrome. Macrosomia is a condition where the baby grows too large, often due to excess glucose crossing the placenta. This can lead to a difficult delivery and increase the risk of birth injuries, such as shoulder dystocia, where the baby's head passes through the birth canal, but the shoulders become stuck, resulting in brachial plexus injuries or fractured bones [3].

Hypoglycaemia in newborns can occur when the baby's body produces too much insulin in response to the mother's high blood sugar levels. After birth, when the baby is no longer exposed to the mother's high glucose, their blood sugar may drop dangerously low, causing seizures or other complications. Respiratory distress syndrome, a condition where the baby's lungs are not fully developed, can affect infants of mothers with uncontrolled gestational diabetes. In severe cases, it may necessitate the use of a ventilator or other breathing support.

The good news is that gestational diabetes can be managed effectively with a combination of lifestyle modifications and, when necessary, medication. Dietary changes play a significant role in controlling blood sugar levels. This typically involves closely monitoring carbohydrate intake, choosing complex carbohydrates that release glucose more slowly, and spacing meals and snacks throughout the day [4]. Additionally, pregnant women with GDM are often advised to increase physical activity, such as walking or swimming, as exercise helps the body use insulin more efficiently. In cases where dietary and lifestyle changes are insufficient to control blood sugar levels, healthcare providers may prescribe medication or insulin therapy. These interventions aim to keep blood sugar levels within a healthy range, reducing the risk of complications for both the mother and the baby.

While the focus is on managing gestational diabetes during pregnancy, it's also important to consider the implications after childbirth. Women who have had GDM are at a higher risk of developing type 2 diabetes later in life. To mitigate this risk, it's recommended that women who had gestational diabetes continue to monitor their blood sugar and maintain a healthy lifestyle after pregnancy. This includes regular exercise,

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a balanced diet, and weight management. The experience of gestational diabetes can be challenging for women, both physically and emotionally. The diagnosis often prompts concerns about the health of the baby and can lead to feelings of guilt or anxiety. It's essential for healthcare providers to provide support and education to pregnant women with GDM, helping them understand the condition, its management, and its potential consequences. Supportive networks, including family and friends, can also play a crucial role in helping women navigate this challenging period [5].

Conclusion

In conclusion, gestational diabetes is a condition that can develop during pregnancy, affecting both the mother and the baby. Early detection and proper management are crucial to reducing the risk of complications. Lifestyle modifications, dietary changes, and, when necessary, medication can help control blood sugar levels, ensuring a healthier pregnancy and delivery. Furthermore, post-pregnancy vigilance is essential, as women who have had GDM are at a higher risk of developing type 2 diabetes. With appropriate care, women with gestational diabetes can have successful pregnancies and healthy babies while minimizing potential long-term health risks.

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