
Diabetes - gestational

Summary

- Gestational diabetes is diabetes that occurs during pregnancy.
 - When the pregnancy is over, the diabetes usually disappears.
 - Women who develop gestational diabetes have an increased risk of developing type 2 diabetes.
 - A healthy lifestyle is important for both mother and baby to reduce their risk of diabetes in the future.
 - If you have had gestational diabetes before, in future pregnancies you will have a test done early in the pregnancy to check that your blood glucose levels are in the normal range.
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Gestational diabetes is diabetes that occurs during pregnancy. Diabetes is a common condition where there is too much glucose in the blood. Gestational diabetes usually goes away after the baby is born. It is important to have a follow-up glucose tolerance test 6 to 12 weeks after the birth to confirm that you no longer have diabetes.

How does gestational diabetes develop?

Your body makes insulin to help keep your blood glucose at the right level. Your blood glucose levels become higher if your body doesn't make enough insulin or if your insulin does not work as well as it should.

During pregnancy, hormones are made by the placenta to help the baby develop and grow. These hormones, however, stop the mother's insulin from working properly. This is called insulin resistance. As the pregnancy develops and the baby grows bigger, the mother's body has to make more insulin to keep her blood glucose at the optimal level.

Later in pregnancy the amount of insulin needed to keep blood glucose levels optimal is two to three times higher than usual. If the mother is unable to produce enough insulin to meet this demand then her blood glucose levels rise and gestational diabetes develops.

The baby's response to the higher glucose levels is to make more insulin. This can lead to the baby becoming larger than usual and cause problems during and after birth.

Who is at risk of gestational diabetes?

Between three and eight per cent of pregnant women develop gestational diabetes. It is usually detected around weeks 24 to 28 of pregnancy, although it can develop earlier. Being diagnosed with gestational diabetes can be both unexpected and upsetting.

Certain women are at increased risk of developing gestational diabetes. This includes women who:

- are over 40 years of age
- have a family history of type 2 diabetes
- are overweight or obese
- are of Aboriginal and Torres Strait Islander descent
- are of particular cultural groups, such as Indian, Chinese, Vietnamese, Middle Eastern, Polynesian and Melanesian
- have previously had gestational diabetes
- take some antipsychotic or steroid medications
- have previously had a baby whose birth weight was greater than 4,500 grams (4.5 kg)
- have had a previous complicated pregnancy
- have **polycystic ovarian syndrome**.

Some women who develop gestational diabetes have no known risk factors.

What are the symptoms of gestational diabetes?

Gestational diabetes usually has no obvious symptoms. If symptoms do occur, they can include:

- increased thirst
- excessive urination
- tiredness
- thrush (yeast infections).

How is gestational diabetes diagnosed?

Most women are diagnosed using a pathology test, which requires blood samples to be taken before and after a glucose drink. This is known as a pregnancy oral glucose tolerance test (OGTT). These tests are usually performed between 24 and 28 weeks into the pregnancy, or earlier if you are at high risk.

A pregnancy oral glucose tolerance test involves:

- fasting overnight
- having a blood test in the morning
- having a drink containing 75 grams of glucose
- having a blood test one hour after having the drink
- having a blood test two hours after having the drink.

Gestational diabetes is diagnosed if any of these blood tests show that your blood glucose is raised.

How do you manage gestational diabetes?

If you are diagnosed with gestational diabetes it is important that you are supported and know what to do to manage it. Health professionals such as your doctor, a dietitian, a diabetes nurse educator or sometimes a diabetes specialist will help you understand what to do and will support you.

Family also can be a great support. It is important that your family understands about gestational diabetes and how it is managed.

Management of gestational diabetes aims to keep blood glucose levels in the recommended range during pregnancy. This can prevent problems during birth and also helps reduce the baby's risk of being overweight in childhood and developing type 2 diabetes later in life.

Management of gestational diabetes involves:

- monitoring blood glucose levels
- healthy eating
- regular physical activity
- education about insulin commencement.

Some women may need insulin injections to help manage their gestational diabetes.

Monitoring blood glucose levels

Monitoring your blood glucose levels is essential. It gives you a guide as to whether the changes you have made to your lifestyle are effective or whether further treatment is required.

A diabetes nurse educator can teach you how and when to measure your blood glucose levels. They will discuss the recommended blood glucose levels to aim for.

Your doctor or diabetes educator can help you link in with the National Diabetes Services Scheme (NDSS) for cheaper blood glucose strips. Regular contact with your diabetes educator or doctor is recommended.

Healthy eating

Make sure you are eating a nutritious diet that helps you maintain a healthy weight. Tips include:

- Choose varied and enjoyable food, including foods rich in calcium (milk and cheese), iron (red meat, chicken and fish) and folic acid (dark green leafy vegetables).
- Include some carbohydrates at each meal such as grains, cereals, fruits, pasta and rice. Reduce your saturated fat intake by limiting the amount of processed and takeaway foods that you eat.
- Avoid foods and drinks containing a lot of added sugar. Discuss with a dietitian how much carbohydrate you should eat and the best way to spread it out throughout the day to help control your blood glucose levels.

A dietitian can also help you with any other questions about how to make sure you are eating the best diet for you and your baby.

Regular physical activity

Regular physical activity, such as walking, helps to keep you fit, prepares you for the birth of your baby and will help to control your blood glucose levels.

Check with your doctor before starting a new or particularly strenuous exercise regimen.

Education about insulin commencement

It is very important that you get information and support from your diabetes educator or doctor on how insulin works, how to give insulin and how to store it.

Insulin sometimes causes blood glucose levels to go too low (hypoglycaemia), so it is very important that you learn the signs and symptoms of this and how to prevent and treat it (as well as safe blood glucose levels for driving).

Insulin injections

You may need insulin injections to help keep your blood glucose level in the normal range. Many diabetes tablets are not safe to take during pregnancy so insulin injections may be necessary. Insulin is safe to take during pregnancy and does not cross the placenta from the mother to the baby.

What happens after my baby is born?

If you have been having insulin injections to help manage gestational diabetes these are usually stopped once your baby is born. This is because women's blood glucose levels usually return to the optimal range quite quickly after their baby's birth.

Your blood glucose levels will be measured for a few days after your baby is born to make sure that they are within the recommended range. Glucose checking times are usually before breakfast and two hours after meals. An oral glucose tolerance test (OGTT) is done six to twelve weeks after the baby is born to check that your diabetes has gone away.

Following the birth of your baby, it is important that your baby's blood glucose levels are measured to check that their blood glucose is not too low. If it is, this can be treated by feeding your baby breast milk or formula. Breastfeeding is encouraged as this is best for you and your baby.

A baby whose mother had gestational diabetes will not be born with diabetes, but they may be at risk of developing type 2 diabetes later in life.

How does gestational diabetes affect any future pregnancies?

If you have had gestational diabetes you are more likely to have it again in future pregnancies. For that reason, a test for gestational diabetes will be performed early in any future pregnancy. If this test gives a result within the recommended range, then another pregnancy OGTT will be done again later in the pregnancy (between 22 and 28 weeks) to make sure your blood glucose levels are still in the recommended range.

How can I reduce my risk of type 2 diabetes?

Women who have gestational diabetes have a high chance (almost one in two) of developing type 2 diabetes at some point later in their lives. However, type 2 diabetes can be prevented. The following steps can reduce your risk:

- maintain a healthy eating plan
- maintain a healthy weight for your height

- do regular physical activity
- have regular follow-up blood tests (OGTT, fasting blood glucose or HbA1c) every one to three years to check your blood glucose levels, especially if you may have further pregnancies.

Talk to your doctor about follow-up blood tests to check for diabetes. The frequency of the tests will depend on your risk for developing diabetes.

Where to get help

- Your **GP (doctor)**
- **Obstetrician**
- **Diabetes specialist or endocrinologist**
- Diabetes nurse educator – ask at the hospital where you are booked to have your baby or, alternatively, you may see a diabetes educator privately
- **Diabetes Victoria** Tel. **1300 437 386**
- **Dietitians Association of Australia** Tel. **(02) 6189 1200** or **1800 812 942**

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