Diabetes - gestational

Gestational diabetes is diabetes that occurs during pregnancy. After the baby is born, the mother's blood glucose levels usually return to normal.

Diabetes is a common condition in which there is too much glucose in the blood. The pancreas either cannot make insulin or the insulin it does make cannot work properly to control the level of glucose in the blood. Insulin is a hormone that is needed to transport glucose from the blood stream into cells where it is needed for energy.

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

It can raise questions such as:

- Will my baby be affected?
- Will I have diabetes for the rest of my life?
- What do I need to do to manage this condition?

Various health professionals will be involved in helping you manage gestational diabetes. You will be given information about how to test and monitor blood glucose levels, as well as dietary advice with a dietitian. Working closely with your doctor and healthcare team can help you to lower your blood glucose levels and keep them within the normal range.

High risk groups for gestational diabetes

Certain women are at increased risk of developing gestational diabetes. High risk groups include:

- Women over 30 years of age
- Women with a family history of type 2 diabetes
- Women who are overweight or obese
- Aboriginal and Torres Strait Islander peoples
- Women of particular cultural groups, such as Indian, Chinese, Vietnamese, Middle Eastern, Polynesian and Melanesian women
- Women who had gestational diabetes in a previous pregnancy.

Development of gestational diabetes

The placenta produces hormones that help the baby to grow and develop, but these hormones can also interfere with the action of the mother's insulin. This is called insulin resistance. As the pregnancy progresses, the mother's energy needs increase and her insulin needs are also higher than normal. Some women are unable to produce extra insulin and blood glucose levels rise.

When the baby is born, the mother's need for insulin returns to normal and diabetes usually disappears.

Effects of gestational diabetes on the baby

Glucose crosses the placenta from mother to baby to meet the energy needs of the developing baby. If the mother's blood glucose levels are raised, a greater amount of glucose crosses the placenta to the baby. To manage this extra amount of glucose, the baby produces more insulin. This can cause excessive growth and fat in the baby. If the mother's blood glucose levels remain raised, the baby may be larger than normal.

Following delivery, the baby may experience low blood glucose levels, particularly if the mother's blood glucose levels were raised before the birth.

Gestational diabetes can be monitored and treated and if well controlled, these risks are greatly reduced. The baby will not be born with diabetes.

Symptoms of gestational diabetes

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

- Unusual thirst
- Excessive urination
- Tiredness
- Thrush infections.

Diagnosis of gestational diabetes

Most women are diagnosed using a special test, which requires a blood sample to be taken after a glucose drink. These tests are usually performed between 24 and 28 weeks into the pregnancy, or earlier if the woman is at high risk.

There are two types of tests:

- **Glucose challenge test (GCT**) – blood is taken and the glucose level is measured one hour after the drink. If this is above normal, an oral glucose tolerance test is required.
- **Oral glucose tolerance test (OGTT**) – involves taking a blood sample after the woman has fasted overnight, A second blood sample is taken two hours after the woman has had a drink containing 75 grams of glucose. A diagnosis is based on the results of the OGTT.
- Diagnosis of gestational diabetes is made if the fasting blood glucose is raised or the two-hour blood glucose is raised.

Treatment of gestational diabetes

Gestational diabetes is managed with:

- **Diet** – you are encouraged to eat a varied diet that is nutritionally appropriate for pregnancy, including foods rich in calcium, iron and folic acid. Your diet should be low in saturated fats and high in fibre. Carbohydrates such as grains, cereals, fruits, pasta and rice are an important part of your eating plan to provide you with energy and essential nutrients. You may need to discuss with a dietitian the amount and distribution of carbohydrate intake to assist in the control of your blood glucose levels.
- **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 something new or particularly strenuous.
- **Monitoring blood glucose levels** – regular testing of your blood glucose levels is essential. It gives a guide to whether changes are effective and when further treatment is required. A diabetes nurse educator will teach you how to measure your blood glucose levels and discuss when to test and the level of blood glucose to aim for. Your doctor or diabetes educator will help you link in with NDSS (National Diabetes Services Scheme) for subsidy of your blood glucose strips. Regular contact with your diabetes educator or doctor regarding blood glucose levels is recommended.
- **Insulin injections** – may be needed to help keep your glucose level in the normal range. Blood glucose lowering tablets are generally not used in pregnancy. Insulin is safe to take during pregnancy and does not cross the placenta from the mother to the baby.
- **Education** – regarding the action of insulin, insulin injection technique, insulin storage, recognition of hypoglycaemia(low blood glucose levels) and its treatment, as well as driving and diabetes, should be provided by your diabetes educator or doctor.

Long-term outlook for gestational diabetes

After the baby is born, the mother's blood glucose levels usually return to normal. A follow-up blood test (OGTT) is recommended six to eight weeks after the baby is born.

Women who have gestational diabetes have a high chance (almost one in two) of developing type 2 diabetes within 20 years. Type 2 diabetes can be prevented, so it is important to take steps to reduce your risk.

You should:

- Maintain a healthy eating plan
- Maintain a healthy weight for your height
- Engage in regular physical activity
- Have a follow-up blood test (OGTT) every year.

Where to get help

- Your doctor
- Obstetrician
- Diabetes specialist or endocrinologist
- Diabetes educator – ask at the hospital where you are booked to have your baby or alternatively you may see a diabetes educator privately
- Diabetes InfoLine Tel. 1300 136 588
- Dietitians Association of Australia.

Things to remember

- 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 risk of diabetes in the future.

This page has been produced in consultation with, and approved by:

Diabetes Australia Victoria

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