

# gestational diabetes

**Gestational diabetes occurs during pregnancy and usually resolves after the baby is born. Diabetes is the name given to a group of conditions where there is too much glucose, or sugar, in the blood. This glucose comes from the carbohydrates we eat and includes starchy foods (eg breads, cereals, potato, pasta, rice), fruit and certain dairy products. Blood glucose levels are regulated by insulin, a hormone produced by the pancreas. Insulin moves glucose from the blood into the body's cells where it can be used by the body for energy. Diabetes develops when the body isn't making enough insulin, or the insulin isn't working properly.**

## What causes gestational diabetes?

The placenta produces hormones that supports the baby to grow and develop during pregnancy. These hormones also block the action of the mother's insulin. This is called insulin resistance. The need for insulin in pregnancy may be 2 or 3 times higher than normal because of this insulin resistance.

Gestational diabetes develops if the mother's body is unable to produce the extra insulin. After delivery the insulin requirements return to normal and the diabetes usually resolves.

## Who is at increased risk of gestational diabetes?

Risk factors of developing gestational diabetes are:

- > Increasing maternal age - over 30 years
- > Family history of type 2 diabetes
- > Overweight or obesity
- > Indigenous Australians
- > Certain ethnic groups including Indian, Chinese, Middle Eastern, South East Asian, Polynesian/Melanesian and African women
- > Previous gestational diabetes
- > Previous difficulty carrying a pregnancy to term
- > A twin or triplet pregnancy
- > Women who have had Polycystic Ovarian Syndrome

**Between 4 to 11%, depending on demographic area, of pregnant women will develop gestational diabetes. The majority develop gestational diabetes around the 24th to 28th week of pregnancy. It is at this time that special blood tests are carried out, except for those women at high risk who may be tested earlier.**



# gestational diabetes

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## How is gestational diabetes diagnosed?

A pathology blood glucose test is performed at 24 to 28 weeks of pregnancy. This test may be done earlier if the woman has an increased risk of developing gestational diabetes.

## How will diabetes affect my baby?

As gestational diabetes usually develops around the 24th to 28th week of pregnancy, the baby's development is not affected. However, as glucose crosses the placenta, the baby is exposed to the mother's high glucose level later in pregnancy. This high level of glucose in the baby's blood stimulates the baby's pancreas to produce extra insulin. The extra insulin causes the baby to put on extra weight (fat). The result of this may be a large baby that may need to be delivered early even if it is not mature enough. A large baby may also complicate the birth and can increase the risk of delivery through a caesarean section.

Problems can also occur shortly after birth. Once the baby is no longer exposed to the mother's high blood glucose levels, the baby's extra insulin can cause temporarily low blood glucose. This risk resolves when the baby adapts to lower blood glucose levels.

There is evidence that gestational diabetes which is not well managed can be associated with long-term health problems in the offspring including obesity, hypertension and diabetes.

The good news is that if gestational diabetes is well managed, these risks are greatly reduced.

## How is gestational diabetes treated?

The management of gestational diabetes is a team effort, involving the woman with gestational diabetes and her partner, her doctor and sometimes specialist doctors, accredited practising dietitian (APD), credentialled diabetes educator and midwife.

**There are three basic components to effectively manage gestational diabetes.**

### 1. Eating pattern

The most important part of management relates to healthy eating habits. Women with gestational diabetes are encouraged to:

- Eat small amounts often. It is important to satisfy your hunger and maintain a healthy weight gain throughout pregnancy.
- Include some carbohydrate in every meal and snack. It is important to distribute carbohydrates evenly throughout the day.
- Choose foods that are:
  - > providing the nutrients for pregnancy eg: foods which include calcium, iron and folic acid
  - > low in fat, particularly saturated fat, and high in fibre
  - > moderate in carbohydrate such as grains, cereals, fruit, pasta and rice
  - > varied and enjoyable.

The *Healthy Eating for Gestational Diabetes* information sheet provides more details. It is strongly recommended that you see an APD to receive advice on an appropriate meal plan that suits your individual circumstances and meets the nutritional needs of you and your baby.

## **2. Physical activity**

Physical activity helps to reduce insulin resistance and is an effective way to lower blood glucose levels. Physical activity, such as brisk walking, also helps to keep you fit and prepares you for the birth of your baby. Always check with your doctor or midwife before starting any form of physical activity or planned exercise that you weren't doing before you became pregnant or if you develop any pregnancy related complications. Remember, contact your doctor if you experience pain or discomfort after physical activity.

## **3. Monitoring blood glucose levels**

Regular self-monitoring of blood glucose levels is essential for assessing progress and adjusting management as necessary. Your doctor or diabetes educator will advise you what blood glucose levels to aim for. The recommended target ranges for blood glucose levels are lower during pregnancy than target ranges generally recommended for people with diabetes.

Your diabetes educator will tell you how to self-monitor blood glucose and record the results, and what to do if blood glucose levels are outside the recommended target range.

Insulin injections may be needed to help bring blood glucose levels into the target range. Blood glucose lowering tablets are generally not used in pregnancy.

## **What happens after my baby is born?**

Blood glucose levels for mother and baby usually return to normal after delivery. It is recommended that women have an Oral Glucose Tolerance Test (OGTT) around six weeks after the birth to test for diabetes and pre-diabetes (impaired fasting glucose and/or impaired glucose tolerance), but the result will usually be normal.

There is an increased risk of developing type 2 diabetes later in life with a 30-50% chance of developing it within 15 years after pregnancy.

## **Can I do anything to reduce my risk of developing type 2 diabetes?**

There are some positive steps you can take to help delay or even prevent the development of type 2 diabetes. It is important to:

- Continue a healthy eating plan.
- Be physically active and aim for at least 30 minutes of moderate physical activity most, preferably all days of the week.
- Keep your weight within your ideal weight range.
- Have your blood glucose levels checked every 1-2 years or as recommended by your doctor.

# gestational diabetes

- Encourage your family to join you in making healthy food choices and be physically active every day.

For many women, being diagnosed with gestational diabetes can be upsetting. However, working closely with your doctor and health care team can help to keep your blood glucose levels within the target range to provide the best outcome for you and your baby.

## Would you like to join Australia's leading diabetes organisation?

- > Dietary services
- > Educational literature
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For more information phone **1300 136 588** or visit your State/Territory Organisation's website:

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