

# Understanding gestational diabetes

Gestational diabetes is a form of diabetes that occurs during pregnancy. About 12–14% of pregnant women will develop gestational diabetes, usually around the 24th to 28th week of pregnancy.

In most cases, blood glucose levels return to the normal range after the baby is born and the woman no longer has diabetes. However, some women will continue to have high blood glucose levels after delivery, leading to a diagnosis of type 2 diabetes.

Diabetes is a condition where there is too much glucose (sugar) in the bloodstream.

Glucose is an important source of energy for your body. It comes from carbohydrate foods that you eat, such as bread, pasta, rice, cereals, fruits, starchy vegetables, milk and yoghurt. Your body breaks down carbohydrates into glucose, which then enters your bloodstream.

Insulin is needed to allow glucose from the bloodstream to enter the body cells and be used for energy. Insulin is made in the body by your pancreas.

During pregnancy, some of the hormones produced by the placenta reduce the action of insulin. The pancreas then needs to produce extra insulin to keep blood glucose levels in the normal range. If the pancreas is unable to produce enough insulin, blood glucose levels rise and gestational diabetes develops.

Managing gestational diabetes can help keep blood glucose levels in the target range for a healthy pregnancy.



## Who is at risk of gestational diabetes?

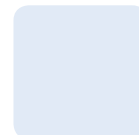
Women with an increased risk of gestational diabetes include those who:

- » are aged 40 years or over
- » have a family history of type 2 diabetes or a first-degree relative (mother or sister) who has had gestational diabetes
- » are above the healthy weight range
- » have had elevated blood glucose levels in the past
- » come from Aboriginal or Torres Strait Islander backgrounds
- » are from a Melanesian, Polynesian, Chinese, Southeast Asian, Middle Eastern or Indian background
- » have had gestational diabetes in a previous pregnancy
- » have polycystic ovary syndrome
- » have previously had a large baby (weighing more than 4.5kg)
- » are taking some types of antipsychotic or steroid medications
- » have gained weight too rapidly in the first half of pregnancy.



## How is gestational diabetes diagnosed?

- All pregnant women should be tested for gestational diabetes at 24 to 28 weeks (except those women who have already had diabetes diagnosed).
- Women who have risk factors for gestational diabetes may be tested earlier in their pregnancy.
- Gestational diabetes is diagnosed using an oral glucose tolerance test (OGTT). This is done at a pathology lab. You will need to fast overnight before having this test.
- Blood will be taken to check your fasting blood glucose level. After this, you will be given a sugary drink and have your blood tested one and two hours later. You will be asked to sit and wait between tests.
- If your blood glucose level is above the cut-off at your fasting, one or two-hour test, you have gestational diabetes.





When you are diagnosed with gestational diabetes there are health professionals who can help you.



### **Why is it important to manage gestational diabetes?**

If blood glucose levels are high during pregnancy, extra glucose passes across the placenta to the baby, who then makes extra insulin. This can sometimes make the baby grow too big, which can cause problems during labour, and increase the risk of early delivery or the need for a Caesarean section.

After the birth, the baby may have a greater risk of low blood glucose levels (hypoglycaemia or hypo). This is because the baby is no longer receiving extra glucose from their mother, but they continue to make extra insulin, causing their blood glucose levels to drop.

Women with gestational diabetes also have an increased risk of developing high blood pressure during pregnancy.

### **How is gestational diabetes managed?**

When you are diagnosed with gestational diabetes there are health professionals who can help you. This includes specialist doctors, diabetes educators and dietitians. They can work with you to help keep your blood glucose levels within the target range. This will provide the best outcome for both you and your baby.

You can manage gestational diabetes by following a healthy eating plan, doing regular physical activity, and monitoring blood glucose levels. This will help keep blood glucose levels within the target range for a healthy pregnancy. It will also help you to manage your pregnancy weight gain. Some women will also need medication called metformin or insulin injections to help manage gestational diabetes.

## Healthy eating

Healthy eating is important to help you keep blood glucose levels within the target range, and to provide all your nutritional needs for pregnancy and a healthy pregnancy weight gain.

Eating well for gestational diabetes includes choosing the right type and amount of carbohydrate foods, limiting foods high in saturated fat, and eating a variety of nutritious foods.

### Choose the right type and amount of carbohydrate foods

Carbohydrate foods are an important source of energy for your body, especially during pregnancy. These foods include breads and cereals, grains, starchy vegetables (such as potato, corn and sweet potato), fruit, legumes, yoghurt and milk. To manage your blood glucose levels, you need to eat the right type and amount of carbohydrate foods.

Eat some carbohydrate food at each meal and snack. The best choices are those that are high in fibre and have a lower glycaemic index (GI). Low-GI carbohydrates include dense grainy/seeded breads, rolled oats, natural muesli, pasta, low-GI white or brown rice, milk, yoghurt, legumes and most fruit.



Spread carbohydrate foods over three small meals and two or three snacks. This can help keep blood glucose levels in the target range and maintain your energy levels. Large amounts of carbohydrate foods at any one meal or snack can cause blood glucose levels to rise too high.

Your dietitian can advise you on the amounts of carbohydrates that are right for you.

Avoid food and drinks that are high in added sugars and have little nutritional value. These include, soft drinks, cordial, cakes, biscuits, chocolates and lollies.

### Limit foods high in saturated fat

Eat less saturated fat by choosing lean meats, skinless chicken and low-fat dairy foods, and by avoiding takeaway and processed foods.

Have small amounts of healthy fats, such as olive oil or canola oil, unsalted nuts, seeds and avocado.

### Eat a variety of nutritious foods

During pregnancy, your body needs extra nutrients, including iron and folate, to help your baby develop. Eating a wide variety of nutritious foods – including vegetables, fruits, lean meats, low-fat dairy foods and wholegrain breads and cereals – can help you to meet these extra nutritional needs.

Food safety is also important during pregnancy, so avoid high-risk foods such as processed meats, uncooked meat, cold seafood, raw eggs, soft cheeses and pre-prepared vegetables and salads.

A dietitian can advise you on how to meet your nutritional needs during pregnancy, and on food safety and healthy eating for gestational diabetes.

## Physical activity

Physical activity can help you manage your blood glucose levels and pregnancy weight gain, as well as keep you fit to prepare for the birth of your baby.

It also has other benefits, such as managing pregnancy symptoms like heartburn, constipation and lower back pain.

Talk to your doctor before starting or continuing any form of physical activity while you are pregnant.

When you have gestational diabetes, it's important to try and be active every day. Activities could include swimming, brisk walking, pregnancy yoga or pilates, and aqua fitness classes.

Talk to your diabetes educator about the effects of exercise on your blood glucose levels, especially if you are taking insulin.

## Monitoring blood glucose levels

Blood glucose monitoring is an essential part of managing gestational diabetes. A diabetes educator can show you how to check your blood glucose levels using a blood glucose meter and advise you on target levels for pregnancy.

The most common times to check blood glucose levels are when you wake up in the morning (fasting) and one or two hours after each main meal. You may also be advised to check your blood glucose levels at other times.

Regular blood glucose monitoring can be helpful for understanding the effects of food and physical activity on blood glucose levels. Keep a record of your blood glucose readings so that your diabetes health professionals can help you look for any patterns in your blood glucose levels. They can also advise you on what to do if your blood glucose levels are outside the target range.



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## Medications

If your blood glucose levels are above the target range, you may need medication to help manage gestational diabetes. Most diabetes tablets are not suitable for use during pregnancy, but a medication called metformin may be used.

Some women will need insulin injections to help keep blood glucose levels in the target range. This will not harm your baby. If you need insulin, your diabetes educator will teach you how to give an injection. Your insulin doses will also need to be reviewed regularly.

## Pregnancy weight gain

As your baby grows, it's normal to gain weight during your pregnancy. How much weight you should gain depends on your weight before you were pregnant. Discuss your individual pregnancy weight gain targets with your health professional.

## Who can help with your gestational diabetes?

Managing gestational diabetes is a team effort, involving you, your family, and health professionals. There are many different health professionals who can help you, including:

- » your general practitioner
- » an endocrinologist (diabetes specialist)
- » an obstetrician
- » a credentialed diabetes educator or diabetes nurse practitioner
- » an accredited practising dietitian
- » an accredited exercise physiologist or physiotherapist
- » a midwife.

## After your baby is born

You will be advised to have an oral glucose tolerance test (OGTT) 6–12 weeks after your baby is born (or as soon as possible after this time). This is to check that your blood glucose levels have returned to the normal range.

Depending on your risk factors, you will also need to be tested for type 2 diabetes again every one to three years. Ask your doctor for more information.

Gestational diabetes can occur again in future pregnancies, and you have an increased risk of developing type 2 diabetes.

You can reduce your risk by:

- » being in the healthy weight range
- » making healthy food choices
- » being physically active every day.

If you develop type 2 diabetes, early diagnosis and management is important for good health, especially if you are planning for a future pregnancy.

Babies born to women who have had gestational diabetes also have an increased risk of childhood obesity and type 2 diabetes later in life. It's important for the whole family to eat well and stay active to reduce this risk.



### More information

If you are diagnosed with gestational diabetes and you register with the National Diabetes Services Scheme (NDSS), you will receive a booklet called *Caring for yourself and your baby*.

After your baby is born, the NDSS will send you another booklet, *Life after gestational diabetes*, as well as regular reminders for follow-up diabetes testing and healthy lifestyle information. For more information on how to register, visit [ndss.com.au](http://ndss.com.au) or speak to your health professional

Breastfeeding has many short- and long-term health benefits for you and your baby. Breastfeeding is recommended for all babies.

## The NDSS and you

A wide range of services and support is available through the NDSS to help you manage your diabetes. This includes information on diabetes management through the NDSS Helpline and website. The products, services and education programs available can help you stay on top of your diabetes.

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