

# Gestational diabetes



## INFORMATION GUIDE

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This booklet is intended to provide you information on diabetes during pregnancy and help you understand how to manage it. Please see your healthcare professional for any further information about your health and diabetes treatment during pregnancy.



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# What is gestational diabetes?



**Gestational diabetes** is a type of diabetes that may develop in women during pregnancy (gestation).<sup>1,2</sup> Diabetes occurs when the body doesn't produce enough or any of the hormone insulin, or can't use it properly to control the level of glucose (sugar) in the blood.<sup>1</sup>

In gestational diabetes, pregnancy-related hormone changes can block insulin production and raise blood glucose levels in the mother, which may be associated with the development of certain complications both during and after pregnancy.<sup>2,3</sup>

Although gestational diabetes usually goes away after the baby is born, it is important to manage it during pregnancy to reduce the risk of any complications, and of the mother or baby developing diabetes later in life.<sup>1</sup>

**With proper management, the majority of women with gestational diabetes will go on to have a healthy pregnancy, normal delivery and a healthy baby.<sup>1</sup>**



# Who might develop gestational diabetes?



**Gestational diabetes** is common, affecting **10–15%** of pregnant women between the 24<sup>th</sup> and 28<sup>th</sup> week of pregnancy. Testing for gestational diabetes is part of the normal screenings that take place during pregnancy, although women who are at an increased risk of developing the condition may be tested earlier.<sup>4</sup>

## Those who may be at increased risk include:<sup>3,4</sup>

- have had gestational diabetes, a large baby or other complications during a previous pregnancy
- have a family history of diabetes
- have had high blood sugar in the past
- are above a healthy weight range or have gained weight too rapidly during pregnancy
- are over 40
- are from certain ethnic backgrounds
- have polycystic ovarian syndrome (PCOS)
- are taking certain types of antipsychotic or steroid medications.

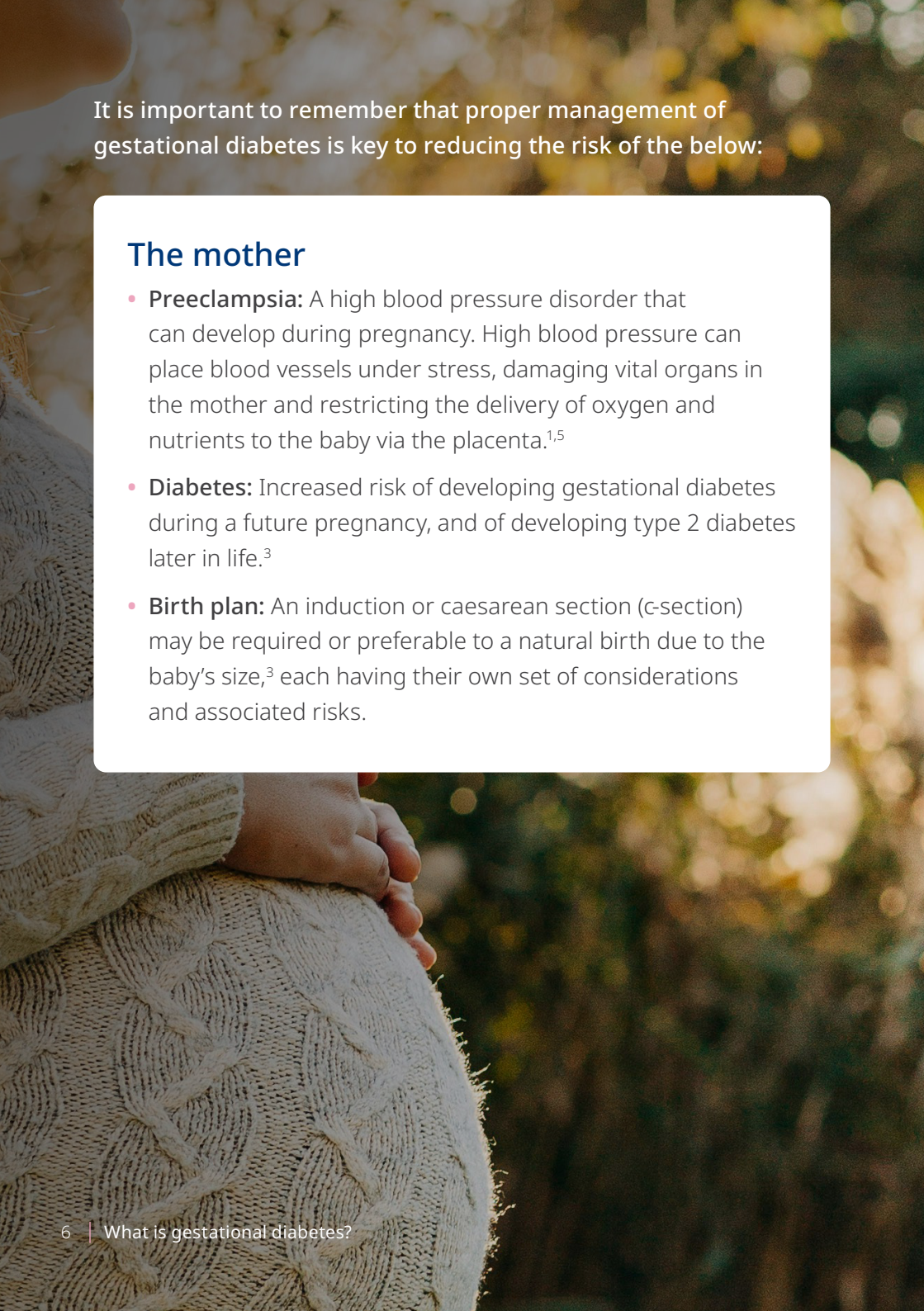
The test for gestational diabetes is called an **oral glucose tolerance test (OGTT)**. It involves fasting overnight before undergoing a blood test, drinking a sugary drink, and then undergoing further blood tests at 1 and 2 hours after the drink to monitor changes in blood sugar. Gestational diabetes will be diagnosed if blood sugar is too high.<sup>1</sup>

# What are the potential effects of gestational diabetes?

It is important to remember that proper management of gestational diabetes is key to reducing the risk of the below:

## The baby

- **High birth weight:** Raised blood sugar levels can cause too much glucose to pass through the placenta to the baby. This can lead to the baby producing too much insulin in response, causing them to grow larger than normal and potentially increasing the risk of complications during birth.<sup>3</sup>
- **Premature birth:** The large size of the baby might mean the baby needs to be delivered early.<sup>3</sup>
- **Diabetes:** Babies born to mothers with gestational diabetes won't be born with diabetes but can be at an increased risk of developing type 2 diabetes later in life.<sup>1</sup> If the baby is female, she will be at an increased risk of developing gestational diabetes later in life.<sup>3</sup>
- **Respiratory distress syndrome:** The baby may have difficulty breathing, especially if delivered early.<sup>3</sup>
- **Hypoglycaemia:** The baby may develop low blood sugar after birth, because they are used to producing more insulin than is needed to remove glucose from the blood in normal amounts.<sup>3</sup>



It is important to remember that proper management of gestational diabetes is key to reducing the risk of the below:

## The mother

- **Preeclampsia:** A high blood pressure disorder that can develop during pregnancy. High blood pressure can place blood vessels under stress, damaging vital organs in the mother and restricting the delivery of oxygen and nutrients to the baby via the placenta.<sup>1,5</sup>
- **Diabetes:** Increased risk of developing gestational diabetes during a future pregnancy, and of developing type 2 diabetes later in life.<sup>3</sup>
- **Birth plan:** An induction or caesarean section (c-section) may be required or preferable to a natural birth due to the baby's size,<sup>3</sup> each having their own set of considerations and associated risks.

# How is gestational diabetes managed?

## Monitoring blood glucose

You will need to measure your blood glucose levels throughout your pregnancy, often by using a **blood glucose monitor**.<sup>1</sup>

This is a small device that pricks your finger to release a tiny drop of blood, which is then absorbed by a glucose meter that will check and record your blood sugar levels.

Your doctor will advise when and how often you need to monitor your blood glucose.<sup>3</sup>



## Diet

Following a healthy eating plan can keep your blood glucose levels within target and provide nutrition for you and your growing baby.<sup>3</sup> While a **balanced diet** comprising of all food groups is essential, **carbohydrates** are the most important to be aware of during pregnancy.



Different carbohydrate sources are broken down into glucose by your digestive system at different rates. **Glycaemic index** (GI) is a simple way of rating how quickly carbohydrate foods are digested. High-GI carbohydrate foods are quickly digested and will cause a rapid rise in blood glucose, whereas low-GI carbohydrates are less processed and take longer to digest, leading to a lower rise in blood glucose.<sup>1</sup>

**Eating low-GI foods, such as oats, wholegrain bread, pasta and high-fibre fruits, is an important way to meet your energy needs while keeping your blood glucose levels under control when managing gestational diabetes.<sup>1</sup>**

It is also important that your diet includes a **variety of sources of proteins and fats**. While fats have the highest energy content of all foods, eating too much saturated fat can lead to high levels of bad cholesterol.<sup>1</sup> In gestational diabetes, high blood glucose levels can cause bad cholesterol to stay in the blood stream for longer, which can impact your risk of cardiovascular disease in the future.<sup>6</sup> It is therefore important to speak with your doctor, dietician or treating physician about tailoring a balanced diet to your lifestyle, as part of managing gestational diabetes.



## Exercise

Exercise, unless advised otherwise by your healthcare professional, is an important aspect of managing gestational diabetes as it helps to reduce blood glucose levels.<sup>1</sup>



### Exercises that are good for gestational diabetes include:<sup>1</sup>

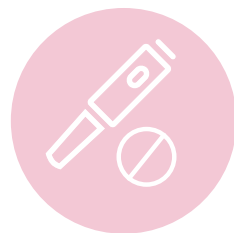
- **Low impact aerobic exercises**, like walking, swimming or cycling
- **Strength training** using light weights and completing a high number of repetitions, making sure to include pelvic floor exercises, and taking plenty of breaks
- **Flexibility exercises** like yoga and Pilates.

Speak to your doctor before commencing exercise during pregnancy.



## Medication

Medication may be required if blood glucose levels are not adequately managed with diet and exercise alone. Medicines may include **tablets or insulin injections**.<sup>1</sup>



One of the medicines that may be prescribed is **metformin**.<sup>1</sup> Metformin is a type of tablet that reduces your body's resistance to insulin, helping your natural insulin and any extra insulin work effectively. It also reduces the amount of stored glucose released into the bloodstream by your liver.<sup>1</sup> Metformin has not been shown to cause any harm during pregnancy.<sup>7</sup>

**Around 10–20% of women with gestational diabetes will need insulin, but it is usually no longer needed once the baby is born.**<sup>1</sup>



**Insulin is delivered via injection**, using a syringe, pen needle or pump with a very small, thin needle. It is injected through the skin into the fatty tissue known as the subcutaneous layer, most often in the stomach, but the needle will not go anywhere near the baby.<sup>1,5</sup>

There are different types of insulin that work at different speeds, and your doctor will work with you to find the best option for you.<sup>1</sup> Insulin does not cross the placenta or affect your baby.<sup>3</sup>

**It is important that insulin is stored correctly.**

It should be kept in the fridge between 2–8 °C, not frozen. Once opened, it can be kept at room temperature for up to a month.<sup>5</sup>

It should not be exposed to direct sunlight, or extreme hot or cold temperatures.

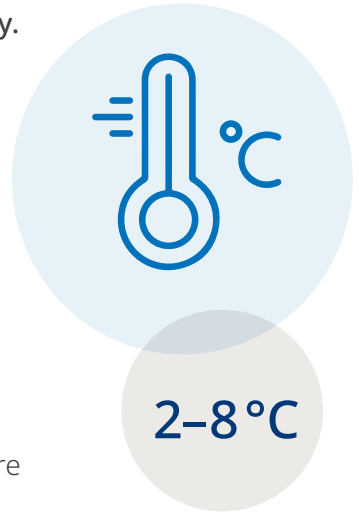
If it turns cloudy, develops lumps or deposits, is expired, has been exposed to extreme temperatures or has been out of the fridge for over a month, it should not be used.<sup>5</sup>

Your doctor will advise you on how best to store and handle the insulin you are prescribed.

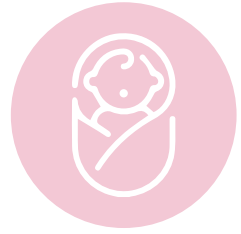
Injecting insulin can cause low blood glucose, also known as **hypoglycaemia** or **'hypos'**. Common reasons are using too much insulin or glucose-lowering medication, not eating enough carbohydrates or delaying/missing a meal, and overdoing physical activity.<sup>8</sup>

Symptoms of a hypo include weakness, trembling or shaking, sweating, light-headedness, dizziness or headaches, lack of concentration, irritability, fast heartbeat or blurred vision. Hypos can usually be treated by eating fast-absorbing carbohydrates and monitoring your blood glucose to check it returns to normal.<sup>8</sup>

It is important to manage hypos to stop blood sugar from falling too low.<sup>8</sup> Your doctor can provide you with further information about managing hypos during pregnancy.



# What to expect during birth and after pregnancy



## Birth

Most women who manage their gestational diabetes well and have no other complications will be able to carry their baby to term and give birth naturally.<sup>9</sup>

If the baby does grow too large, your doctor may recommend an induction one or two weeks early, which will help your body to start labour. A large baby may also mean you need a c-section, however, this is a possibility with all births and may also be needed for other reasons such as a low placenta or breech baby.<sup>9</sup> Your treatment team can advise you of all your options and answer any questions you may have.

When your labour begins, it is important to monitor your blood glucose and keep it within a normal range to prevent your baby's blood sugar from dropping after birth. When you are in active labour, your treatment team will manage your blood glucose.<sup>9</sup>



## After pregnancy

After birth, your baby will be monitored by your treatment team for the first few days to make sure their blood sugar is not dropping too low. This will include monitoring their heart rate, colour and breathing, and checking their blood glucose levels via a heel prick test. They may need extra feeding or glucose to get their blood sugar into a normal range.<sup>9</sup>

After your delivery, your blood glucose will usually return to a normal, healthy range. You may need to monitor your blood glucose for a short while after birth to ensure this is the case, but once it is back to a normal, healthy range, you will no longer have gestational diabetes and will not need medicines or other treatment.

**Your blood glucose will be tested by your treatment team as part of your postnatal health checks around 6–12 weeks postpartum.<sup>9</sup>**



Having gestational diabetes can put you at an increased risk of developing type 2 diabetes later in life.

It is advised that you continue to eat well and exercise to maintain a healthy weight and continue to have regular health checks to manage this risk.<sup>3</sup>

# Resource

## Diabetes What's Next?

[diabeteswhatsnext.com/au/en.html](https://diabeteswhatsnext.com/au/en.html)



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