



Gestational Diabetes Screening: A decision aid for pregnant women

WHAT IS GESTATIONAL DIABETES?

Gestational diabetes mellitus (GDM) occurs when the hormones made by your placenta cause the body's insulin to not work as well as usual, which increases your blood glucose levels.

You may have an increased risk of GDM if you:

- have had GDM before in pregnancy
- are over the age of 40 years
- are a First Nations woman
- have an African, Melanesian, Polynesian, South Asian, Chinese, Southeast Asian, Middle Eastern, Hispanic or South American background
- have someone in your family with a history of type 2 diabetes
- have a first-degree relative (mother or sister) with a history of GDM
- are above the healthy weight range
- have gained weight rapidly in the first half of pregnancy
- have previously had elevated blood glucose levels or insulin resistance
- have polycystic ovary syndrome
- have previously had a big baby (especially weighing more than 4.5kg)
- are currently taking some types of antipsychotic or steroid medications.

One in seven pregnant women have gestational diabetes during pregnancy. If you have risk factors you may be asked to undertake a blood glucose level (BGL) test.

If the BGL test result is high (BGL >11.0mmol) you will be recommended an oral glucose tolerance test (OGTT) at 14–16 weeks gestation.

In the first trimester you are likely to have diabetes if your OGTT fasting plasma glucose is ≥ 7.0 mmol/L and 2-hour plasma glucose is ≥ 11.1 mmol/L or HbA1c ≥ 48 mmol/mol (6.5%).

WHY IS IT IMPORTANT TO SCREEN FOR GESTATIONAL DIABETES IN PREGNANCY?

Short- & long-term outcomes when you have GDM during pregnancy

You are more likely to:

- experience high blood pressure (pre-eclampsia)
- have a bigger baby, which can cause birth trauma
- have a caesarean birth or an induction of labour
- have depression during and post-pregnancy
- have a longer stay in hospital.

Long term complications are:

- an increased risk of developing type 2 diabetes (5% chance within six months of giving birth, and up to 60% within 20 years)
- a significantly increased risk of developing cardiovascular disease at a younger age.

Short- & long-term impacts on your baby when you have GDM

Short-term complications may include:

- birth before 37 weeks (premature birth)
- a bigger baby
- a higher chance of shoulder dystocia (where one of the baby's shoulders becomes stuck, preventing or delaying the birth of the baby's body)
- low blood sugar levels (hypoglycaemia)
- problems with breathing (respiratory distress syndrome)
- low calcium levels in the blood (hypocalcaemia).

Long-term complications may include:

- being over a healthy weight (childhood obesity)
- developing type 2 diabetes.



MY CHOICES FOR SCREENING

Option One:

It is recommended that you have an OGTT when you are between 24–28 weeks pregnant (if early testing or diagnosis is not made).

You will need to fast (no food or drink except for water) for 8–14 hours prior to the test (you can take your usual medications).

You will visit a pathology collection unit and will be asked to drink a sweet sugar drink (75gm of sugar). You will need to give a blood sample before you have the drink, and again at one hour and two hours after consuming the drink. You will need to stay in the waiting room until after the two-hour collection time.

Option Two:

Complete two weeks of BGL testing. You will need to borrow a testing kit from the hospital. Every day you will test your blood using the kit you have been given.

You will need to test your blood first thing in the morning before you eat anything (fasting for 8–14 hours). Your fasting level needs to be ≤ 5.1 mmol/L.

You will need to test again every 1–2 hours after eating a meal. Your one-hour blood glucose needs to be ≤ 7.4 mmol/L and your two-hour blood glucose ≤ 6.7 mmol/L.

To help consider your dietary and lifestyle factors, you'll need to monitor the foods you are eating to see how they affect your sugar levels and to see if you exceed a recommended value. Two abnormal levels is diagnostic of GDM.

Option Three:

A random plasma glucose and glycated haemoglobin (HbA1c) level test. This is a one-off blood test. You do not need to fast. A result of HbA1c ≥ 41 mmol/mol (5.9%) means you have GDM.

HbA1c is not suitable if you have thalassaemia or significant iron deficiency. If you are on a high-dose corticosteroids or metformin (usually for polycystic ovary syndrome), results should be interpreted cautiously.

Option Four:

Perform a fasting blood glucose (FBG) test at 24–28 weeks. If this reading comes back ≥ 5.1 mmol/L then you have GDM. If the fasting result is between 4.7–5.0 mmol/L you will be asked to complete the OGTT test.

Option Five:

No testing

Right now, I'm leaning towards...

Option_____ (please insert)

I would like to discuss further...

References:

Gestational Diabetes In Australia. (2020). Gestational Diabetes In Australia Position Statement August 2020.

Safer Care Victoria. (2024) Gestational Diabetes.

Australian Journal of General Practice (AJGP, 2018). RACGP – Gestational diabetes mellitus.

Diabetes Australia. (2024). Blood glucose monitoring.

Nankervis A, McIntyre HD, Moses R, Ross GP, Callaway L, Porter C, Jeffries W, Boorman C, De Vries B, McElduff A for the Australasian Diabetes in Pregnancy Society. ADIPS Consensus Guidelines for the Testing and Diagnosis of Hyperglycaemia in Pregnancy in Australia and New Zealand. (2014). 2014ADIPSGDMGuidelinesV18.11.2014_000.pdf

Diabetes Australia. (2024). Managing gestational diabetes.