



## Diagnostic Testing for Gestational diabetes mellitus (GDM) during the COVID 19 pandemic: Antenatal and postnatal testing advice

*This advice is provided by the Australasian Diabetes in Pregnancy Society (ADIPS), the Australian Diabetes Society (ADS), the Australian Diabetes Educators Association (ADEA), and Diabetes Australia (DA).*

### Background

- Universal screening of all pregnancies for gestational diabetes is the standard of care in Australia and New Zealand. Identification and treatment of hyperglycaemia in pregnancy improve pregnancy outcomes.
- To slow the spread of COVID-19, it is critical to reduce person-person contacts – including within the health care setting. This includes contacts in pathology collection centres.
- During the COVID-19 pandemic, there will be temporary changes to the recommended process of diagnostic testing for gestational diabetes during pregnancy and for post-natal checks in women who have had gestational diabetes.
- These changes are intended to limit the number of women attending pathology collection centres and the amount of time spent at pathology collection centres.
- In some high-risk populations, it may be appropriate to continue the current procedures if appropriate social distancing can be ensured.

### Guideline for diagnostic testing for GDM during pregnancy in COVID-19 pandemic

#### 1) Early testing for high risk women

Advice for testing is found in the protocol outlined in Figure 1.

#### 2) Women who have not been diagnosed with gestational diabetes in a previous pregnancy

Women can choose to:

- a) Perform the Glucose Tolerance Test (GTT) at 24-28 weeks (standard care)
- b) Perform a fasting blood glucose test at 24-28 weeks and be triaged according to the protocol outlined in Figure 1.

#### 3) Women who have been diagnosed with GDM in a previous pregnancy

Women can choose to:

- a) Perform the Glucose Tolerance Test (GTT) at 24-28 weeks (standard care)
- b) Perform a fasting blood glucose test at 24-28 weeks and be triaged according to the protocol outlined in Figure 1.
- c) Be automatically considered to have gestational diabetes (GDM) and should commence blood glucose self-monitoring at home.



## Guidelines for post-partum testing if gestational diabetes was diagnosed

- Women are advised to delay the post-partum Glucose Tolerance Test (GTT) for 6-12 months (until after the pandemic) unless advised otherwise by their healthcare provider.
- All women are advised to have the post-partum GTT performed before their child turns 12 months old or before they start trying for a subsequent pregnancy.
- In women at high risk of type 2 diabetes (e.g. HbA1c  $\geq 6\%$  in pregnancy, total daily dose insulin  $>150$  units), continued self-blood glucose monitoring after pregnancy may be appropriate. Performing an HbA1c at 4-6 months post-partum may also be appropriate.
- Women should be given clear parameters regarding testing and how and when to contact a healthcare provider.

## Important considerations for health care professionals

- The protocol outlined in Figure 1 is based on limited evidence and may not be suitable for all women. Health care professionals are encouraged to use clinical judgment in determining if a particular testing regimen is suitable for individual women.
- It is acknowledged that changes to the GDM testing procedure will likely miss some women who otherwise would have been diagnosed with gestational diabetes. This testing procedure still aims to identify the highest risk gestational diabetes.
- It is acknowledged that this document would have benefited from consultation with consumers and a broad range of health professionals; this was not possible given the time critical nature of the COVID-19 pandemic.
- NZ midwives and clinicians can refer to the following document released by NZSSD:  
<https://protect-au.mimecast.com/s/1SxMCP7yBlkK4k7Byhzqdju?domain=nzssd.org.nz>
- The contents of this document will likely change over time as the COVID-19 pandemic evolves.
- The changes to gestational diabetes protocols outlined in this document are temporary; advice will revert to usual testing procedures after the COVID-19 pandemic.

Figure 1: Queensland Clinical Guidelines: Screening and Diagnosis of GDM during COVID-19 pandemic. See Figure 1 Flowchart on the next page

<https://protect-au.mimecast.com/s/KKlaC6X1PysromAo3CpNrog?domain=health.qld.gov.au>

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# Screening and diagnosis of GDM during COVID-19 pandemic

**COVID-19 pandemic**

- **Applies to:** Pregnant women regardless of COVID-19 status
- **Rationale:** To support social distancing and minimise blood collection time (i.e not based on new evidence)
- **Implementation:** Commence as practical and convenient. Seek expert advice as clinically appropriate

- Risk factors for GDM**
- **BMI > 30 kg/m<sup>2</sup>** (pre-pregnancy or on entry to care)
  - **Ethnicity** (Asian, Indian subcontinent, Aboriginal, Torres Strait Islander, Pacific Islander, Maori, Middle Eastern, non-white African)
  - **Previous GDM**
  - **Previous elevated BGL**
  - **Maternal age ≥ 40 years**
  - **Family history DM** (1st degree relative or sister with GDM)
  - **Previous macrosomia** (birth weight > 4500 g or > 90th percentile)
  - **Previous perinatal loss**
  - **Polycystic ovarian syndrome**
  - **Medications** (corticosteroids, antipsychotics)
  - **Multiple pregnancy**

**Assess all women for risk factors**

**Risk factors or GDM clinical concerns?**

Yes

**First trimester HbA1c**

**HbA1c > 41 mmol/mol (5.9%)?**

Yes

No

**Check fasting FBG**

- At 24–28 weeks gestation or
- If clinical concerns after first trimester

No

**If FBG ≤ 4.6 mmol/L**

- OGTT *not* required

**If FBG 4.7–5.0 mmol/L**

- OGTT *recommended*
  - If COVID-19 suspected or confirmed seek expert clinical advice
- OGTT advice for women
  - Fast (except for water) for 8–14 hours prior to OGTT
  - Take usual medications

**If FBG ≥ 5.1 mmol/L**

- OGTT *not* required

**OGTT normal?**

Yes

**Routine antenatal care**

- Unless clinical concerns

No

**GDM care**

HbA1c (%)	HbA1c (mmol/mol)
5.0	31
6.0	42
6.5	48
7.0	53
8.0	64
9.0	75
10.0	86
11.0	97
12.0	108

**GDM diagnosis**

**HbA1c first trimester only**

- ≥ 41 mmol/mol (or 5.9%)

**OGTT one or more of:**

- Fasting ≥ 5.1 mmol/L
- 1 hour ≥ 10 mmol/L
- 2 hour ≥ 8.5 mmol/L

**BGL:** blood glucose level, **BMI:** body mass index, **DM:** diabetes mellitus, **FBG:** fasting blood glucose **GDM:** gestational diabetes mellitus, **HbA1c:** glycated haemoglobin, **OGTT:** oral glucose tolerance test, **≥:** greater than or equal to, **>:** greater than

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