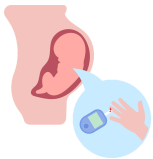


GESTATIONAL DIABETES SCREENING

Diabetes mellitus ("diabetes"), is a disorder of **glucose** (sugar) regulation in the blood stream. **Gestational diabetes mellitus (GDM)** is a version of diabetes where you develop diabetes for the first time in pregnancy. This is because pregnancy hormones can cause the body to be **resistant to insulin**, the hormone that typically regulates blood sugar levels. This leads to elevated blood sugars that can negatively impact a pregnant person and baby. It typically arises in the second or third trimester. In Ontario, gestational diabetes can affect around 10% of pregnant people. We can **screen for this condition using simple blood tests** and a diagnosis and treatment can help reduce dangerous outcomes for the pregnant person and baby.



All pregnant people are offered screening for gestational diabetes between **24-28 weeks** gestational age. If at high risk for GDM, screening may be offered earlier.

SCREENING APPROACH TO GDM

PREFERRED 2-STEP SCREENING AND DIAGNOSTIC APPROACH

1 hour 50g glucose challenge test (GCT)

Started at 24-28 weeks gestation at any time of day or earlier if high risk

Normal GCS
 <7.8 mmol/L

Abnormal GCS
7.8-11.0 mmol/L

Abnormal GCS
 ≥ 11.0 mmol/L

2h 75g oral glucose tolerance test (OGTT)

Normal OGTT

Any abnormal OGTT value
FPG ≥ 5.3 ; PG 1h ≥ 10.6 ; PG 2h ≥ 9.0

Routine Prenatal Care
(No Gestational Diabetes)

Gestational Diabetes Mellitus

ALTERNATIVE 1-STEP DIAGNOSTIC APPROACH

2 hour 75g oral glucose tolerance test (OGTT)

Started at 24-28 weeks gestation at any time of day or earlier if high risk

Any abnormal OGTT value
FPG ≥ 5.1 ; PG 1h ≥ 10.0 ; PG 2h ≥ 8.5

Normal OGTT

Routine Prenatal Care
(No Gestational Diabetes)

FPG - fasting plasma glucose
PG - plasma glucose

How do these tests work?

The pregnant person will be provided with a drink with a **high glucose content**, followed by blood sugar level measurements at specific time intervals.



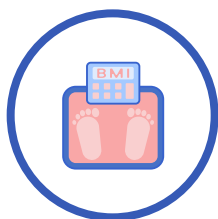
Pregnant people who are deemed to be **"high risk"** for GDM will often be screened earlier in the first half of pregnancy with a repeat test at 24-28 weeks if the initial test was negative.



FACTORS THAT INCREASE RISK OF GDM



**Maternal age
over 35**



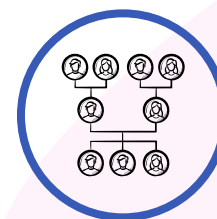
**Obesity
(pre-pregnancy
BMI > 30 kg/m²)**



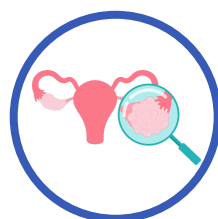
**Being physically
inactive**



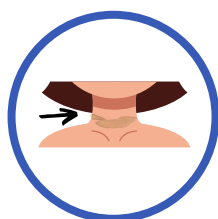
**Corticosteroid
use**



**Family history of
diabetes**



**Polycystic ovary
syndrome**



**Acanthosis Nigricans
(dark thin skin in
body folds and
creases)**



**Previous pregnancy
complicated by GDM or
previous macrosomic infant
(a baby weighing >4000g)**



**Ethnicity
(e.g., Indigenous, African,
Asian, Hispanic, South
Asian)**

Uncontrolled GDM can have **negative consequences on maternal and fetal/neonatal health and can lead to birth complications**. Our handout **"A Prenatal Guide to Gestational Diabetes Mellitus"** has more information about these complications, as well as prevention, symptoms, and treatment of GDM.

Our handout, **"Healthy Eating with Gestational Diabetes"** has more information about how you can optimize your diet if you are diagnosed with GDM.

Appropriate treatment of people with GDM has been shown to **reduce the risk** of several negative maternal and fetal outcomes.



References

Berger H, Gagnon R, Sermer M. Guideline No. 393 Diabetes in Pregnancy. J Obstet Gynaecol Can. 2019;41(12):1814-25.
Luo R, Fell DB, Corsi DJ, et al. Temporal Trends in Gestational Diabetes Mellitus and Associated Risk Factors in Ontario, Canada, 2012–2020: A Population-Based Cohort Study. J Obstet Gynaecol Can. 2024;46(8):102573.
The American College of Obstetricians and Gynecologists. Gestational Diabetes [Internet]. American College of Obstetricians and Gynecologists. 2020. Available from: <https://www.acog.org/womens-health/faqs/gestational-diabetes>
The Society of Obstetricians and Gynaecologists of Canada. Glucose testing. Pregnancy Info. 2024. Available from: <https://www.pregnancyinfo.ca/your-pregnancy/routine-tests/glucose-testing/>
This material is intended for use by Canadian residents only. It is solely intended for informational and educational purposes. The information presented in these handouts is not to be used as a substitute for medical advice, independent judgement, or proper clinical assessment by a physician. The context of each case and individual needs differ between patients and this material cannot be applied without consultation with a trained doctor. This information handout is not intended for the diagnosis of health concerns or to take the place of the care of a medical professional. This material reflects the information available at the time of preparation.