

**Screening & Testing for Gestational Diabetes**

**What is Gestational Diabetes?**

Gestational diabetes mellitus (GDM) is a condition that develops during pregnancy when the body is not able to make enough insulin. The lack of insulin causes the blood glucose (blood sugar) levels to become higher than normal. Gestational diabetes affects between 2 – 10% of women during pregnancy.

**What causes Gestational Diabetes?**

Gestational diabetes is the result of hormonal changes that occur in all women during pregnancy. Increased levels of certain hormones made in the placenta (the organ that connects the baby by the umbilical cord to the uterus and transfers nutrients from the mother to the baby) interfere with the ability of insulin to manage glucose. This condition is called "insulin resistance." As the placenta grows larger during pregnancy, it produces more hormones and increases insulin resistance.

Usually the pancreas is able to produce more insulin (about three times the normal amount) to overcome the insulin resistance. If, however, the pancreas cannot produce enough insulin to overcome the effect of the increased hormones during pregnancy, sugar levels will rise, resulting in gestational diabetes.

**Are you at risk for Gestational Diabetes?**

These factors increase your risk of developing diabetes during pregnancy:

* Being overweight prior to becoming pregnant (BMI ≥ 27)
* Family history of diabetes (first degree relative)
* Being over the age 25 or Advanced maternal age
* Repeated glucose in urine during pregnancy
* Previous baby > 4kg
* High blood pressure during pregnancy
* Previous unexplained stillborn baby
* Having gestational diabetes or glucose intolerance in a previous pregnancy
* Having too much amniotic fluid (a condition called polyhydramnios)
* Ethnic groups: Asian, Hispanic, Aboriginal, African

Keep in mind that half of the women who develop gestational diabetes have no known risk factors.

**How is Gestational Diabetes diagnosed?**

Gestational diabetes is generally diagnosed between the 24th and 28th week of pregnancy when insulin resistance usually begins. If you have had gestational diabetes before, or if your healthcare provider is concerned about your risk of developing gestational diabetes, a test may be performed before the 13th week of pregnancy.

To *screen* for gestational diabetes, you will take a test called the [oral glucose tolerance test](http://www.webmd.com/baby/guide/pregnancy-diabetes). The test takes place 2-3 hours after your last meal, and you drink 50g of glucose. The body absorbs this glucose rapidly, causing blood sugar levels to rise within 30-60 minutes. A blood sample will be drawn about 60 minutes after drinking the solution. The blood test measures how the glucose solution was metabolized (processed by the body).

If your screening test results have elevated sugar content (abnormal values), you will have another test for diagnosis. This is called oral glucose tolerance test, which is similar to the screening test except you drink 75g glucose, after an overnight fast. Your blood is drawn just before, and then one and two hours after drinking the glucose. Diagnosis of GDM is made if one or more of the three results are higher than normal

**Should I screen or test for Gestational Diabetes?**

Some women find consuming the sugar makes them nauseous or vomit. There may be concerns about the effect on baby from fasting and then sugar loading. It may help to make your last meal with high quality protein to aid in stabilizing the blood sugars.

Mothers who have gestational diabetes, 70% will have babies weighing less than 9 lbs even with no treatment. Also, the majority of babies weighing more than 9 lbs are born to mothers with normal blood sugars. Research has shown that women with diagnosed GDM – whether or not they receive treatment – have an increased risk of Cesarean section without any demonstrated improvement in outcome for mom or baby.

**Note:** if you pass the test, this does not mean that you are free to eat lots of sugar and forget about good nutrition! Even if you are not diabetic, you can still grow an overly large baby by eating a diet full of refined sugars and highly processed food.

**How is Gestational Diabetes managed?**

* Monitor blood sugar levels regularly
* Referral made to the Diabetic Clinic, who will provide dietary recommendations to maintain a Low Glycemic Index
* Exercise and reduce daily stress
* Monitor weight gain
* In rare cases, taking medication i.e. metformin or insulin to help lower blood sugar – ineligible for midwifery care

**How will my diet change?**

* Avoid high-calorie snacks and desserts
* Avoid starchy fruits and vegetables, any processed foods or products with refined sugar
* Use of artificial sweeteners such as aspartame, sucralose, stevioside, or acesulfame potassium. These sweeteners are not linked to an increased risk of birth defects.
* Choose foods high in fiber, lean cut meats, whole or raw foods and have low- or fat-free dairy products
* Use liquid based oils instead of solid fats (butter or shortening)
* Drink at least 8 cups (or 64 ounces) of water per day
* Balance your meals, and don’t skip meals
* Eat small frequent meals throughout the day
* Make sure you are getting enough vitamins and minerals in your daily diet such as omega fatty acids, prenatal vitamins

**What are some complications of Gestational Diabetes?**

* Since insulin resistance generally does not develop until the 24th week of pregnancy, birth defects are not a common complication of gestational diabetes, since they generally occur during the first 13 weeks of pregnancy.
* Labour and delivery may be affected because there’s a chance baby is too large leading to shoulder dystocia, maternal or fetal birth trauma, failure to progress, operative delivery, or various neonatal respiratory problems or neonatal metabolic problems.
* Babies are encouraged to breastfeed immediately after birth, monitored for symptoms, and their blood sugar levels are tested to make sure that it is not experiencing hypoglycemia.
* At 6 weeks post-partum, you are offered another OGTT to make sure you haven’t developed Type II Diabetes.
* Risk of recurrent gestational diabetes – 1/3 to 2/3s of women who have gestational diabetes in one pregnancy will have it again in a later pregnancy.

Developed from SOGC and WebMD