

## Testing for Gestational Diabetes

### Blood Glucose Control

Many of the foods we eat— especially sweet and starchy foods— are converted into **glucose** in the body. **Glucose** remains in the bloodstream until a hormone called **insulin** is released from the pancreas. Insulin helps glucose enter fat, muscle, and liver cells, where it is used to create energy.

When your blood glucose drops, another hormone called **glucagon** is released from the pancreas. Glucagon prompts the liver to release glucose back into the bloodstream so your body can use it.

### Gestational Diabetes

During pregnancy, hormones alter the body's normal insulin response and cause **insulin resistance** in the body's cells. This happens because your body *wants* to keep your blood glucose levels higher, so that more glucose can cross the placenta, enter the fetal bloodstream, and help your baby grow.

**Gestational diabetes mellitus (GDM)** occurs when your body fails to regulate your blood glucose levels during pregnancy.

### Signs of Gestational Diabetes:

- Fatigue
- Nausea
- Unusual thirst
- Frequent urination
- **Glycosuria**, or glucose in your urine (identified during your routine dipstick tests)

However, these symptoms (with the exception of glycosuria) are often experienced during normal pregnancies. **GDM is often asymptomatic. This is why all pregnant people are tested for GDM, even if they feel fine.**

### Possible complications of GDM include:

- High blood pressure
- Preterm delivery
- **Fetal macrosomia**, or a big baby
- Newborn breathing difficulties, low blood glucose, and jaundice

**Anyone can develop GDM**— including people who maintain a healthy diet and weight. However, pregnant people who have risk factors for **type 2 diabetes mellitus** are more likely to develop GDM.

**GDM usually resolves after the baby is born.** However, people who develop GDM are more likely to develop **type 2 diabetes** later in life. Prenatal testing provides an opportunity to 1) learn about your risk status and 2) adopt healthy habits to manage your blood glucose during pregnancy and beyond.

## Your Glucose Challenge Test (GCT)

Between 24 and 28 weeks gestation, you will complete your Glucose Challenge Test (GCT). You may want to avoid eating a big meal or a sugary treat immediately beforehand, but there is no need to fast.

When you arrive at our office, you will drink a beverage containing 50 grams of glucose. We will then ask you to relax for the next hour. During this hourlong waiting period, you can drink water— but please avoid eating or drinking other beverages. One hour later, we will draw your blood and send it to a laboratory for blood glucose testing.

## Your Glucose Challenge Test Results

<b>Blood glucose &lt;130 mg / dL</b>	You probably will not develop GDM. However, your midwives may recommend dietary changes or additional monitoring if your GCT result is close to 130 mg / dL.
<b>Blood glucose 130 – 189 mg / dL</b>	You may be at risk for GDM. A more sensitive test— the <b>Glucose Challenge Test (GTT)</b> — is recommended.
<b>Blood glucose 190+ mg / dL</b>	Your GCT result is high enough to diagnose GDM. You will be referred to a specialist for counseling on <b>GDM management</b> and <b>self-monitoring of blood glucose (SMBG)</b> .

## Your Glucose Tolerance Test (GTT)

If you need to complete a **Glucose Tolerance Test (GTT)**, we will ask you to eat a high-carbohydrate diet for three days beforehand. We will then ask you to fast for 8 – 12 hours before your GTT. The test will be scheduled in the morning. Because the test takes 3 hours, we suggest that you bring a book or another relaxing activity. Please also bring a high-protein lunch to eat as soon as your test is over.

When you arrive at our office, we will draw your blood in order to check your **fasting blood glucose**. We will then ask you to drink a beverage containing 100 grams of glucose. Next, we will draw your blood 1, 2, and 3 hours after you finish the glucose beverage.

## Normal Glucose Tolerance Test (GTT) Results

<b>Fasting Blood Glucose</b>	<95 mg / dL
<b>1-Hour Blood Glucose</b>	<180 mg / dL
<b>2-Hour Blood Glucose</b>	<155 mg / dL
<b>3-Hour Blood Glucose</b>	<140 mg / dL

**If two or more of the above values are abnormal, GDM is diagnosed. If one value is abnormal, dietary counseling is recommended.**

## Self-Blood Glucose Monitoring

**We recommend taking the Glucose Challenge Test in order to quickly and accurately assess your risk for GDM.** However, some pregnant people choose to monitor their own blood glucose instead of completing the Glucose Challenge Test (GCT).

- If you want to check your own blood glucose at home, you will be asked to check your blood glucose 4 times / day, every day for one week. Your midwives will help you figure out the best times to check your blood glucose based on your daily schedule.
- If you choose to check your blood glucose at home instead of completing the Glucose Challenge Test (GCT), please keep a written log of your results.

**If you have GDM, or if your GCT / GTT results are borderline, you may need to monitor your blood glucose at home.**

- Your midwives and / or a specialist will teach you when and how to check your blood glucose.
- **You will keep a written log of your blood glucose readings.** You are also encouraged to record what and when you eat. This will help you figure out what foods are causing your blood glucose to increase.

## If You Are Diagnosed with Gestational Diabetes Mellitus

A GDM diagnosis may cause anxiety. However, this diagnosis presents an opportunity to adopt healthy habits and minimize your risks. GDM can often be managed with diet and exercise. **You may still be able to give birth at the birthing center.** Your midwives will discuss the criteria for a birthing center delivery following a GDM diagnosis.

**For more information, please explore the following websites:**

American College of Obstetricians and Gynecologists: [ACOG.org](http://ACOG.org)

American Pregnancy Association: [americanpregnancy.org](http://americanpregnancy.org)

Centers for Disease Control and Prevention: [CDC.gov](http://CDC.gov)

March of Dimes: [marchofdimes.org](http://marchofdimes.org)