

**Glucose Tolerance Test for Gestational Diabetes Mellitus**

**What is Gestational Diabetes?**

Gestational diabetes (GDM) is a condition unique to pregnancy. It is not a clinical disease. The condition is defined as an inability of the pregnant mother to tolerate carbohydrates. GDM is present in 3-6% of all pregnancies in the United States. The prevalence varies depending on factors such as age, parity, and obesity. Age seems to be a particularly sensitive factor and ethnicity may also be a factor.

**What are the risks of GD?**

Screening is recommended because it assists in identifying women at risk for diabetes later in life, enabling her to create lifestyle changes that may prevent the development of diabetes. It is also recommended in effort to discover those in which management may prevent excessively large babies, reducing the risk of birth trauma, cesarean delivery, neonatal hypoglycemia, and elevated jaundice levels in the newborn. Additionally, management can prevent stillbirth.

Mothers with gestational diabetes are also at increased risk for hypertensive disorders, specifically preeclampsia. An increased risk for birth defects is only if the woman is severely hyperglycemic or has previously undiagnosed DM. Mothers with uncomplicated gestational diabetes and whose pregnancies were monitored and glycemia controlled by diet and insulin have not shown to experience excess perinatal mortality.

**The following are some risk factors for developing gestational diabetes:**

Previous baby >9 pounds

Previous baby with congenital birth defects

Previous pregnancy with GD

Multiple miscarriages

Family history of diabetes (parent, sibling)

BMI exceeding 26

Excess amniotic fluid

Recurrent sugar in the urine

Recurrent infection (specifically yeast infections)

Pre-eclampsia

Chronic hypertension

Polycystic ovarian syndrome (PCOS)

Hispanic, Native American, Asian/Pacific Islander, or African American

Cigarette smoking

Chronic Steroid use

**What are the symptoms of GD?**

Most mothers have no symptoms of GDM. However, like ordinary diabetes some do experience increased urine output, recurrent urinary glucose and ketones, increased thirst and appetite, recurrent infection and/or slow healing, acetone breath, weakness, and weight loss.

**What tests are available?**

The American College of Obstetricians recommends universal screening for all pregnant women between 24 and 28 weeks of pregnancy. Women at increased risk for developing GDM, such as those with significant obesity, a strong family history of type 2 diabetes, or a personal history of GDM, glucose intolerance or glucosuria are CHOICE for GESTATIONAL DIABETES SCREENING encouraged to have screening as early as possible in pregnancy and then be rescreened at the 24-28 week of pregnancy or at any time they may have signs or symptoms.

The glucose tolerance test (GTT) is the most commonly used screening procedure. It involves assessing plasma glucose 1 hour after consumption of a 50-g glucose load. If this initial screen is abnormal, it is followed by a 3- hour, 100-g glucose load for diagnosis of gestational diabetes. The initial screening is given without regard to prior nourishment, although it may be more sensitive if tested following fasting.

**What can I do if I am diagnosed with GD?**

Your midwife will consult with an OB to form a care plan. You will then be referred to a dietician who will discuss a recommended diet and exercise program in effort to maintain appropriate blood glucose levels. You will also need to purchase a blood glucose monitor and test your blood sugars regularly. Your midwife and nutritionist will work together to develop an individual plan for optimizing management. Chromium picolinate (500mg daily) and cinnamon supplementation (up to 6mg daily or as needed) are suggested. If blood sugar levels, taken after each meal, can be controlled with diet alone, homebirth may proceed normally. Additional testing to assure fetal well-being may also be suggested by your midwife. If insulin is used to control your blood sugars, transfer to a hospital-based provider is necessary.

**How will my baby be treated after birth?**

Breastfeeding should be immediate and often. Newborn babies born to mothers with GDM may experience a dangerous drop in their own blood glucose level following birth. Your midwife will monitor the baby’s glucose closely and you are encouraged to call her with any concerns following her departure. A baby with low glucose levels may appear shaky, have difficulty eating, or may be difficult to arouse. Your midwife may also talk with you about expressing colostrum during the prenatal period and storing this in the event your newborn may need additional supplementation to ensure an appropriate blood glucose level. This helps to prevent supplementation of artificial breastmilk.

**Instructions for Glucose Testing**

The requirements for an accurate test are:

* A glucose load of 50 grams must be consumed in 15 minutes.
* The blood sample must be drawn 1 hour after finishing the glucose load
* Fast for two hours before eating (you can drink water). Then you cannot eat or drink anything except for water before your blood is drawn.

**50 Gram Glucose Load Options**

(ONLY CHOOSE ONE)

2 Eggs (3oz)

2 Slices of Whole Wheat or Whole Grain toast or English muffin

2 pats of butter

4oz of Orange Juice

8oz of Whole Milk or Skim Milk

Water

***OR***

½ Block of Tofu

2 Slices of Whole Wheat or Whole Grain toast or English muffin

2 pats of butter

4oz of Orange Juice

Water

***OR***

1 Large Avocado

1 cup of Ezekiel sprouted cereal

8oz of cow, soy or almond milk or 6oz of rice dream milk

4oz of Orange Juice with no added sugar

***OR***

12 oz of Welch’s Purple Grape Juice



**Glucose Tolerance Test for Gestational Diabetes Mellitus**

**Informed Consent**

**Consent**:

Screening for gestational diabetes is controversial. Evidence is clear that GDM imposes risks on both mother and baby, yet evidence is not as solid regarding the effects of management following diagnosis of GDM. However, the glucose tolerance test itself imposes minimal risk and can assist you in optimizing not only your current pregnancy, but your lifelong health. Based upon the information contained in this document, please indicate your decision regarding screening for gestational diabetes below:

I have read and understand the information provided and have had an opportunity to ask questions. I have been provided resources for further education regarding Gestational Diabetes and the Glucose Tolerance Test. I will in no way hold Growing Families liable for my decision. I am aware of the risks of Gestational Diabetes and have freely chosen to take the following action:

\_\_\_\_\_Yes, I would like to screen for Gestational Diabetes by doing the 50g Glucose Tolerance Test

\_\_\_\_\_No, I want to decline the American College of Obstetricians universal recommendation to screen for Gestational Diabetes, despite the risks involved.

Date of Consent: \_\_\_\_\_\_/\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_

Client’s Printed Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Client’s Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Midwife’s Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_