

## Decision Aid: Glucose Challenge Test

### What is Gestational Diabetes?

During pregnancy, the body is required to change its glucose metabolism a little bit so that the baby is constantly supplied with adequate levels of glucose. This is a normal and healthy physiological process. However, when a mother has pre-existing glucose metabolism problems, this normal physiological change can be too much for her body. Her pancreas is forced to produce insulin too often, her glucose levels fluctuate widely, and, over time, her body “resets” itself to this irregular glucose/insulin level. Therefore, Gestational Diabetes Mellitus (GDM) is the onset of Type II diabetes during pregnancy. It can be mild or severe and it can go away after pregnancy. It may occur in one pregnancy but not again in a later pregnancy.

### Problems caused by GDM

GDM can cause problems for both the mother and the baby, during and after pregnancy. The mother is at increased risk of pre-eclampsia (extreme rise in blood pressure), hypertension, and polyhydramnios (too much amniotic fluid). The baby is at higher risk of birth injury or trauma due to being macrosomic (larger than normal). The baby may also suffer from low blood sugar (hypoglycemia) just after birth, increasing the likelihood of breathing difficulties, resuscitation, and hospitalization. Additionally, the mother’s risk of developing Type II diabetes in the years after pregnancy increases substantially, thus causing all the health problems associated with diabetes.

A very important but minimally understood negative effect of GDM is the “resetting” of the baby’s own metabolism that occurs as the baby’s pancreas, brain chemicals and body cells react to the high levels of glucose during pregnancy. The child is pre-programmed to crave sugar, have radical swings in insulin levels and gain weight. This vastly increases risk of the baby developing Type II as a child, teenager, or adult. Diabetes can be intergenerational; that is, if you have GDM (or Type I or II) and your baby is a girl who goes on to have her own children, the risk of her children developing diabetes is increased.

When gestational diabetes is diagnosed and managed well, this dramatically reduces risks to you and your baby. If gestational diabetes is managed well with diet changes then care can continue with a midwife. If medication is necessary, then this necessitates a transfer of care to birthing in a hospital setting.

### What are the Risk Factors for GDM?

Pregnancy itself is not a cause of GDM, but rather a situation in which a metabolic problem may become apparent. 50% of women have these certain lifestyle and genetic factors:

- Overweight, obesity and/or high body mass index;
- Family members with diabetes, especially parents or siblings;
- Older than 25 years old, and especially old than 45 years old;
- GDM or a large baby in a previous pregnancy;
- Member of a high-risk ethnic group, including Native American, Asian, Hispanic and Pacific Islander.

While a person cannot change her ethnic group or family members, each mother can positively impact her glucose metabolism with education and changes in diet and exercise patterns.

**How can I avoid developing GDM in the first place?**

The key to overall health and to dealing with problems in glucose metabolism is, not so surprisingly, DAILY INTAKE OF FRESH FOODS WITH HIGH NUTRITIONAL DENSITY, AEROBIC AND WEIGHT-BEARING EXERCISE, APPROPRIATE SUPPLEMENTS, and HEALTHY FOOD CHOICES! Of course, the longer you have done this prior to pregnancy the better your general health will be. Some women will develop GDM regardless of risk factors or lifestyle choices.

**How is GDM tested?**

A precise amount of glucose is consumed by drinking "Glucola." The drink should be consumed in 5 minutes or less. One hour after the drink is completed, your blood is drawn and sent to a lab that provides the results within a few days.

**Risks, benefits, and uncertainties.**

Glucola may contain ingredients that cause allergies or anaphylaxis. The ingredients in the drink are: dextrose from corn, citric acid from corn, natural flavoring corn, sodium benzoate, yellow #6, purified water.

Should you elect to not have the test performed, it is important to note that in case of a hospital transfer, it is likely that your baby will undergo additional testing if gestational diabetes was suspected.

**Alternatives**

Jelly bean test

Breakfast challenge test

**Statement of Choice**

**I have read and understand all of my options regarding testing for gestational diabetes and I take responsibility for choice that is documented as follows:**

\_\_\_\_\_ I agree to have the gestational challenge test performed.

\_\_\_\_\_ I refuse to have the gestational challenge test performed.

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Mother's Signature

Printed Name

Date

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Partner's Signature

Midwife's Signature