



## Glucose Tolerance Test

Until 1979, one range of normal blood glucose was used, regardless of pregnancy status. At that time, a new range of normal blood glucose for pregnancy, lower than that for the nonpregnant woman was defined. Women with levels in pregnancy above the new "normal" levels were labeled gestational diabetics. Gestational diabetes (also called gestational carbohydrate intolerance or type 3 diabetes) refers to a transient condition occurring only during pregnancy. This condition was called "diabetes" rather than "glucose intolerance of pregnancy" to ensure that insurance companies would cover treatment costs, and women would take the condition seriously.

A little background will give some perspective on how gestational diabetes evolved as a clinical entity. During the 1930s through the 1960s, many women restricted their weight gains in pregnancy on medical advice, with the result that many babies were born in the 6 to 7 pound range. Historically, a large baby was associated with diabetes. When maternal weight gain protocols became less restrictive in the 1970s, one outcome was generally larger babies in well-nourished, full-term mothers. The definition of "large" today varies around the country, and, in some areas, may be as small as 8lb 5oz. The diabetic mother and the macrosomic baby were already firmly linked. The new view of glucose intolerance in pregnancy that was simultaneously evolving was grasped, perhaps unconsciously, as an "explanation" for this trend toward larger babies. Unfortunately, there was little attempt to differentiate between truly macrosomic babies resulting from poor diabetic control and healthy, larger babies resulting from a good maternal diet.

Harrison's Internal Medicine states that the most accurate screening is done with glucose levels taken after a normal meal; the 1997 criteria consider a fasting glucose as most significant. Yet gestational diabetes is screened using a 1, 2, or 3-hour oral glucose tolerance test (OGTT). Up to 75% of all persons with positive OGTT tests never develop diabetes, making this test accurate only 25% of the time. In addition, over 70% who test positive will have normal results when retested.

As of July 1997, selective, rather than universal screening for gestational diabetes was recommended. Low-risk women are defined as those who are less than 25 years of age, of normal body weight, who have no family history of diabetes and are not a member of a high risk ethnic or racial group (i.e., Hispanic, African American, Native American, Asian) and are not candidates for screening. No change is recommended in the current diagnostic criteria for gestational diabetes.

### **The risks of true diabetes mellitus in pregnancy:**

- A large, edematous, fragile baby (macrosomic) with disproportionately large shoulders who is subject to hypoglycemia due to the rapid postpartum decrease in fetal glucose levels.
- Prematurity with accompanying respiratory distress and other problems.
- A 2 to 3 times higher rate of fetal abnormalities than in the non-diabetic population (occurring with greater frequency the longer the mother has been diabetic or when glucose levels are poorly controlled).
- Unexplained intrauterine death, especially after 36 weeks gestation.
- A higher risk of maternal complications such as toxemia, circulatory, visual, and kidney problems.

It is often hard to discern between the inherent risks of diabetes (especially regarding toxemia) and the risks due to improper medical management of the condition. Improper advice, especially regarding diet and weight restriction, considerably increases the intrinsic risk for both mother and baby.

Gestational Diabetes has not been convincingly shown to increase risk-except the risk of having a big baby. Even so, most babies of GD mothers will be of normal weight and most high-weight babies will be born to women who are not gestational diabetics. Even if risks exist, treatment has little effect on reducing them and introduces considerable risk, stress and unpleasantness of its own. Also, failure to consume adequate amounts of carbohydrates for three days prior to the OGTT, bed rest, and many medications cause false positives. The OGTT, used to diagnose GD, does not produce reliable, repeatable values.

Woman at risk can just as easily be counseled regarding risk reduction via maintaining a normal weight, exercising and reducing refined carbohydrate intake without subjecting them to a barrage of tests, dietary restrictions and surgical birth, none of which will benefit them or their babies.