

Diabetes during Pregnancy

When blood sugar level is persistently high in a patient, the person is said to be having diabetes. A diabetic woman in pregnancy needs special attention. Some women are found to be diabetic during pregnancy. This is called as Gestational diabetes. Both pre-pregnancy diabetes and diabetes occurring during pregnancy have peculiar problems which will be discussed in this brochure.

All types of diabetes are a concern in pregnancy. Glucose control, a healthy diet, exercise, and medications, if needed, are keys to a healthy pregnancy.

What is diabetes?

The basic problem in Diabetes is the metabolism of sugar which is primarily handled by hormone called insulin. Insulin moves glucose out of the blood and into the body's cells where it can be turned into energy. When the body does not make enough insulin, glucose cannot get into cells and instead stays in the blood. High levels of glucose in the blood is called hyper-glycemia. Over time, high blood glucose levels can damage the body and cause many problems, like heart disease, eye problems (including blindness), and kidney disease.

Gestational Diabetes

Pregnancy changes the way insulin works. Thus in some women diabetes develops only during the pregnancy. This is called as gestational diabetes. Gestational diabetes is thought to affect 2–10% of all pregnancies.

A pregnant woman is more prone to develop gestational diabetes if she:

- is overweight
- has had gestational diabetes before
- has had a very large baby
- has a close relative with diabetes
- has problems in a previous pregnancy (such as stillbirth)
- has polycystic ovary syndrome

Effects during Pregnancy:

A woman with diabetes is more prone to miscarriage and stillbirths.

The risk of the following problems also is increased:

- Hydramnios—This is a condition where excessive water accumulates in the uterus. This can lead to pre-term labor and delivery.
- Pre-eclampsia—This condition is linked to high blood pressure. Preeclampsia can lead to seizures or kidney or liver problems in the mother. The baby may need to be delivered early.
- Respiratory distress syndrome (RDS)—This syndrome can make it harder for the baby to breathe after birth.
- Birth defects—Birth defects, most often involving the heart, brain, and skeleton, can occur. These defects have been linked to high blood glucose levels in the mother early in pregnancy, when the baby's organs were developing.
- Macrosomia (very large baby)—When the mother's glucose level is high throughout pregnancy, the baby can receive too much glucose. As a result, the baby can grow too large. A large baby may make vaginal delivery difficult.

The risks of these problems can be decreased if a woman maintains her blood glucose levels in the normal range before and during pregnancy. For this reason, getting medical care to prepare for pregnancy is essential for a woman with diabetes.

During these visits, a woman may receive:

- diagnosis and treatment of any medical conditions caused by her diabetes
- meal plans and exercise advice, including information about folic acid to prevent neural tube defects
- information about maintaining a healthy weight during pregnancy

With planning, control, and expert care, the chances of a woman with pre-pregnancy having a healthy baby are very good.

How is diabetes detected?

The diagnosis of diabetes is done only after the blood test for sugar estimation is done. Thus unless the test is done the diabetes can not be detected. If you have any high risk factor (mentioned above) it is important that you tell this to your doctor which will help the doctor in doing the blood test early.

In low risk patients the blood sugar is checked after 6 months of pregnancy. Usually, it is this time when diabetes in pregnancy develops.

Treating diabetic mother:

Email: datarhospital@hotmail.com

URL: www.mygynaec.com

Treating a diabetic mother is a team work of specialists and the woman herself. The services of diabetes specialist, dietician, paediatrician, and of course the obstetrician are required. Above all it is the patient who should contribute effectively by sticking to right diet and exercise plan.

Healthy Eating

A balanced diet is a key part of any pregnancy. Your baby depends on the food you eat for its growth and nourishment. Diet is even more important if you have diabetes —as important as medication. Not eating properly can cause glucose levels to go too high or too low.

The number of calories you need depends on your weight, stage of pregnancy, age, and level of activity. In most cases, the diet will include special meals. Meals and snacks will be spread throughout the day and before bedtime. You may be asked to keep a log of what you eat. Changes may be made to improve glucose control or to meet the needs of the growing baby.

Exercise

For all pregnant women, but especially those with diabetes, exercise is important. Exercise helps keep glucose levels in the normal range. You and your health care provider will decide how much and what type of exercise you need. Usually, 30 minutes of exercise per day are recommended.

Medications

Women with pre-pregnancy diabetes who took insulin before pregnancy usually need to increase their insulin dosage while they are pregnant. Insulin is safe to use during pregnancy. Because the amount of insulin needed throughout the day varies throughout pregnancy, your insulin dosage may need to change. If you manage your diabetes with oral medications, you may need insulin during pregnancy.

Mild gestational diabetes often can be controlled with a special diet and exercise. Some women with gestational diabetes need oral medications or insulin to keep levels normal.

Obstetric care:

A diabetic woman needs to see the obstetrician more frequently to keep a close observation on the baby. Following are the ways/ tests to keep watch on the baby and its well being.

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- Kick count - This is a record of how often you feel your baby move. Most doctors advise the patients to watch for the movements in one hour slot after they have taken the food.
- Ultrasound exam - This exam checks how the baby is developing and whether any birth defects are apparent. Later in pregnancy, it is used to help estimate fetal weight, locate the placenta, and assess the level of amniotic fluid.
- Fetal heart rate monitoring - The baby's heart rate is measured with a monitor that is placed on the mother's abdomen.
- Biophysical profile & Doppler - This ultrasound test checks fetal breathing, fetal body movement, fetal muscle tone, and the amount of amniotic fluid. The doctor will also measure the blood supply to the various organs of the foetus.

The doctor will plan the delivery for a diabetic mother at an appropriate time based on the condition. This may be done by caesarean section or induction of labour.

After birth, most babies of women with good glucose control do well. Some babies may need to spend time in a special care nursery.

Problems can include:

- low glucose levels
- low calcium and magnesium levels in the blood
- jaundice (yellow color of the skin)
- breathing problems

These problems can be treated soon after birth. If your glucose levels were well controlled during your pregnancy, your baby is less likely to have problems after birth.

Postpartum Care

After the delivery the blood sugars need to be tested repeatedly. The mothers with gestational diabetes may become totally normal. The mothers who are diabetic from before pregnancy will need to work out the treatment plan with the doctor.

Finally...

All types of diabetes are a concern in pregnancy. Glucose control, a healthy diet, exercise, and medications, if needed, are the keys to a healthy pregnancy. Close monitoring of glucose levels is important. If you have existing diabetes, seeing a health care provider and controlling glucose levels before you become pregnant can

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decrease the risks to both you and your baby. Women with gestational diabetes will need follow-up tests for diabetes beginning at their first postpartum visit.