

Gestational Diabetes



Diabetes mellitus (also called “diabetes”) is a condition that causes high levels of *glucose* in the blood. Glucose is a sugar that is the body’s main source of energy. Health problems can occur when glucose levels are too high. Some women develop diabetes for the first time during pregnancy. This condition is called *gestational diabetes*. Women with gestational diabetes need special care both during and after pregnancy.

This pamphlet explains

- how gestational diabetes occurs
- risk factors
- how it may affect pregnancy
- controlling gestational diabetes during pregnancy
- delivery and after-pregnancy care

How Gestational Diabetes Occurs

Gestational diabetes is caused by a change in the way a woman’s body responds to *insulin*. Insulin is a *hormone*. It moves glucose out of the blood and into the body’s cells where it can be turned into energy. During pregnancy, a woman’s cells naturally become slightly more resistant to insulin’s effects. This change is designed to increase the mother’s blood glucose level to make more nutrients available to the baby. The mother’s body makes more insulin to keep the blood glucose level normal. In a small number of women, even this increase is not enough to keep their blood glucose levels in the normal range. As a result, they develop gestational diabetes.

For most women, gestational diabetes goes away after childbirth. However, they remain at high risk of having diabetes later in life.

Some women found to have gestational diabetes may actually have had mild diabetes before pregnancy that was not diagnosed. For these women, diabetes does not go away after pregnancy but is a lifelong condition.

Risk Factors

Several risk factors are linked to gestational diabetes. It also occurs in women who have no risk factors. But it is more likely in women who

- are older than 25 years
- are overweight
- have had gestational diabetes before
- have had a very large baby
- have a close relative with diabetes
- have had a *stillbirth* in a previous pregnancy
- are African American, American Indian, Asian American, Hispanic, Latina, or Pacific Islander

All pregnant women are screened for these risk factors. A lab test also is given to detect gestational diabetes (see [box](#)).

How Gestational Diabetes Affects Pregnancy

If gestational diabetes is not treated, it can increase the risk of certain problems for mother and baby. It increases the risk of having a very large baby (a condition called *macrosomia*) and possible *cesarean birth*. High blood pressure and preeclampsia are more common in women with gestational diabetes. Babies born to mothers with gestational diabetes may have problems with breathing, low glucose levels, and *jaundice*. With proper prenatal care and careful control of glucose levels, the risk of these problems decreases.

Gestational diabetes may cause long-term health effects in women. Women who have had gestational diabetes are at higher risk of having diabetes in the future, as are their children. Women with gestational diabetes will need to have regular diabetes testing after pregnancy. Their children also will need to be monitored for diabetes risks (see [“Care After Pregnancy”](#)).

Testing for Gestational Diabetes

If you have risk factors for gestational diabetes, your blood glucose level is measured early in pregnancy. If you do not have risk factors, you may be tested between 24 weeks and 28 weeks of pregnancy.

The test is safe and simple. First, you drink a sugary

drink. A blood sample is taken 1 hour later. If the level of glucose is high, you will need to have another, similar test in which several blood samples are taken to confirm the results.

Controlling Gestational Diabetes

If you have gestational diabetes, you will need to keep your blood glucose levels under control. Doing so will reduce the risks to both you and your baby. Controlling blood glucose levels may require daily tracking of glucose levels, eating healthy foods, exercising regularly, and sometimes, taking medications. You will probably need more frequent prenatal care visits to monitor your health and your baby's health.

Women with gestational diabetes may see a diabetes educator or a dietitian. A diabetes educator is a health care provider who teaches people how to live with diabetes. A dietitian is an expert in nutrition and meal planning. Later in pregnancy, special tests of the baby's well-being may be done. You are more likely to have these tests if your gestational diabetes is not controlled, if you need to take medications, or if you develop problems.

Tracking Glucose Levels

Checking your glucose level is an important part of keeping it within the normal range. For the best results, follow the schedule your health care provider gives you.

A glucose meter is used to test glucose levels. This device tests a small drop of blood. Keep a glucose level log and bring it with you to each prenatal visit. Glucose logs also can be kept online and e-mailed to your health care provider.

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. Healthy eating is even more important if you have diabetes. Women with gestational diabetes have special dietary needs. Not eating properly can cause glucose levels to go too high or too low.

If you have gestational diabetes, you will need to eat regular meals throughout the day. You may need to eat small snacks as well, especially at night. Eating regularly helps avoid dips and spikes in the blood glucose level.

You may need to limit the amount of carbohydrates you eat and avoid certain foods high in sugar. Carbohydrates are sugars and starches. Eating a lot of carbohydrates can increase the level of glucose in the blood.

The number of calories needed daily during pregnancy depends on your prepregnancy weight, stage of pregnancy, and level of activity. It is important to gain the recommended amount of weight but not gain too much. Gaining too much weight during pregnancy may be especially problematic for a woman with

gestational diabetes. Excess weight or weight gained too quickly can make the body even less responsive to insulin and make it even harder to keep blood glucose levels under control.

A dietitian can help you plan your meals to make sure you are getting the recommended amounts of nutrients. You will be asked to keep a log of what you eat. Changes may be made to your diet to improve glucose control or to meet the needs of your 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 can decide how much and what type of exercise is best for you. In general, 30 minutes of exercise on most days of the week is recommended. If you have never exercised before, you should not begin an exercise program without discussing it with your health care provider. Walking is a great exercise for beginners. If you were physically active before pregnancy, you can continue an exercise program approved by your health care provider during pregnancy.

Medications

Gestational diabetes often can be controlled with diet and exercise. If diet and exercise are not enough, medication may be needed to control blood glucose levels. Some women may take oral medications; others may need insulin. Insulin is a drug that is injected. Your health care provider or diabetes educator will teach you how to give yourself insulin shots.

If you are prescribed medications, you need to keep monitoring your blood glucose level as recommended by your health care provider. Your health care provider will review your glucose log to make sure that the medication is working. Changes to your medications may be needed to help keep your blood glucose level in the normal range.

Special Tests

You may need special tests to check the well-being of the baby. These tests can help your health care provider detect possible problems and take steps to manage them:

- **Fetal movement counting**—Sometimes called “kick counts,” this is a record of how often you feel your baby move. A healthy baby tends to move the same amount each day. You may be asked to keep track of this movement late in pregnancy. You will be told to contact your health care provider if you note a difference in your baby’s activity. The usefulness of kick counts in reducing the risk of serious problems is not clear. Some health care providers do not use kick counts for this reason.
- **Nonstress test (NST)**—This test records changes in the baby’s heart rate in response to movement using an electronic fetal monitor.
- **Biophysical profile (BPP)**—This test involves monitoring the fetal heart rate (the same way it is done in a nonstress test) as well as an **ultrasound** exam. It checks the baby’s heart rate and estimates the amount of **amniotic fluid**. The baby’s breathing, movement, and muscle tone also are checked.

- **Contraction stress test (CST)**—In this test, the baby's heart rate is measured in response to contractions of the uterus.

Delivery

Most women with gestational diabetes are able to have a vaginal birth but are more likely to have a cesarean birth than women without diabetes to prevent delivery problems. Labor also may be induced (started by drugs or other means) earlier than the due date.

Care After Pregnancy

Gestational diabetes is not just a problem during pregnancy. It greatly increases your risk of developing diabetes after you have your baby. One third of women who had gestational diabetes will have diabetes or a milder form called insulin resistance soon after giving birth. Within 10 years, about 6 out of 10 women who had gestational diabetes will develop diabetes. You are more likely to develop diabetes if you are obese or if gestational diabetes was diagnosed early in pregnancy. Children of women who had gestational diabetes also may be at risk of becoming overweight or obese during childhood. They also have a higher risk of developing diabetes.

If you have had gestational diabetes, you should get regular tests for diabetes after pregnancy. You should have a test for diabetes 6 –12 weeks after you give birth. If your postpartum glucose test result is normal, you need to be tested for diabetes every 3 years. Be sure to tell all of your health care providers that you have had gestational diabetes so that you continue your regularly scheduled tests. Your baby also should be checked throughout childhood for insulin resistance and other risk factors for diabetes, such as obesity.

Breastfeeding is the best way to feed your baby. It also can help with postpartum weight loss. As your child gets older, a healthy lifestyle may be helpful in preventing diabetes. Maintaining a healthy weight, eating a balanced diet, and staying active may decrease your risk of getting diabetes in the future.

Finally...

Gestational diabetes can increase the risk of problems during pregnancy. However, glucose control, a healthy diet, exercise, and medication, if needed, can decrease these risks and result in a healthy pregnancy. Women with gestational diabetes will need follow-up tests for diabetes beginning 6 –12 weeks after giving birth and then every 3 years.

Glossary

Amniotic Fluid: Water in the sac surrounding the fetus in the woman's uterus.

Biophysical Profile (BPP): An assessment by ultrasound of fetal breathing, fetal body movement, fetal muscle tone, and the amount of amniotic fluid. May include fetal heart rate. Sometimes the profile includes only the nonstress test and an estimate of the amount of amniotic fluid.

Cesarean Birth: Delivery of a baby through incisions made in the mother's abdomen and uterus.

Contraction Stress Test (CST): A test in which mild contractions of the mother's uterus are induced and the fetus's heart rate in response to the contractions is recorded using an electronic fetal monitor.

Diabetes Mellitus: A condition in which the levels of sugar in the blood are too high.

Gestational Diabetes: Diabetes that arises during pregnancy.

Glucose: A sugar that is present in the blood and is the body's main source of fuel.

Hormone: A substance produced by the body to control the functions of various organs.

Insulin: A hormone that lowers the levels of glucose (sugar) in the blood.

Jaundice: The yellowish appearance of the skin or whites of the eyes that is caused by the buildup of a substance called bilirubin in the bloodstream.

Macrosomia: A condition in which a fetus grows very large.

Nonstress Test (NST): A test in which changes in the fetal heart rate are recorded using an electronic fetal monitor.

Preeclampsia: A condition of pregnancy in which there is high blood pressure and protein in the urine.

Stillbirth: Delivery of a dead baby.

Ultrasound: A test in which sound waves are used to examine internal structures. During pregnancy, it can be used to examine the fetus

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