HAVING A HEALTHY PREGNANCY WHILE MANAGING GESTATIONAL DIABETES



Gestational Diabetes



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WHAT IS GESTATIONAL DIABETES?

Diabetes mellitus (also called "diabetes") is a condition in which too much glucose (sugar) stays in the blood instead of being used for energy. Health problems can occur when blood sugar is too high. Some women develop diabetes for the first time during pregnancy. This condition is called gestational diabetes (GD). Women with GD need special care both during and after pregnancy.

WILL I ALWAYS HAVE GESTATIONAL DIABETES?

GD goes away after childbirth, but women who have had GD are at higher risk of developing diabetes later in life. Some women who develop GD may have had mild diabetes before pregnancy and not known it. For these women, diabetes does not go away after pregnancy and may be a lifelong condition.

WHY DID I GET GESTATIONAL DIABETES?

The body produces a hormone called insulin that keeps blood sugar levels in the normal range. During pregnancy, higher levels of pregnancy hormones can interfere with insulin. Usually the body can make more insulin during pregnancy to keep blood sugar normal. But in some women, the body cannot make enough insulin during pregnancy, and blood sugar levels go up. This leads to GD.

Anyone can get GD during pregnancy. Some women are affected more than others, including women of African, Asian, Hispanic, Native American, and Pacific Island descent. Several risk factors are linked to GD,

including

- being overweight or obese
- being physically inactive
- having GD in a previous pregnancy
- having a very large baby (9 pounds or more) in a previous pregnancy
- having high blood pressure
- having a history of heart disease
- having polycystic ovary syndrome (PCOS)

GD also can develop in women who have no risk factors.

HOW WILL GESTATIONAL DIABETES AFFECT MY PREGNACY?

When a woman has GD, her body passes more sugar to her baby than it needs. With too much sugar, her baby can gain a lot of weight. A large baby (weighing 9 pounds or more) can lead to complications for the woman, including:

- labor difficulties
- cesarean birth
- heavy bleeding after delivery
- severe tears in the vagina or the area between the vagina and the anus with a vaginal birth

When a woman has GD, she also may have other conditions that can cause problems during pregnancy. For example, high blood pressure is more common in women with GD. High blood pressure during pregnancy can place extra stress on the heart and kidneys. Preeclampsia also is more common in women with GD. If preeclampsia occurs during pregnancy, the baby may need to be delivered right away, even if it is not fully grown.

HOW WILL GESTATIONAL DIABETES AFFECT MY BABY?

Babies born to women with GD are at risk for the following problems:

- breathing difficulties
- jaundice
- low blood sugar at birth (their blood sugar will be checked frequently after delivery)
- birth trauma, including damage to their shoulders during vaginal delivery
- some babies may need special care in a neonatal intensive care unit (NICU)

If blood sugars are very high or completely uncontrolled, there is a greater risk of stillbirth.



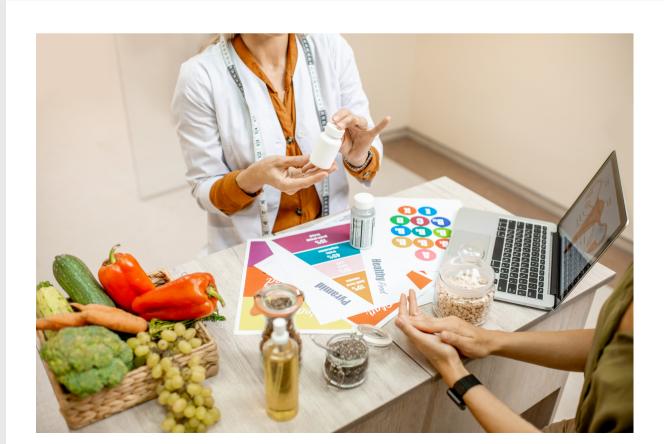
HOW WILL I MANAGE GESTATIONAL DIABETES?

You will need more frequent prenatal care visits to monitor your health and your baby's health. You will need to track your blood sugar and do things to keep it under control. Doing so will reduce the risks to both you and your baby. For many women, a healthy diet and regular exercise will control blood sugar. Some women may need medications to help reach normal blood sugar levels even with diet changes and exercise.

HOW CAN I LEARN MORE?

Your provider will refer you to meet with a diabetes educator. These are some of the topics you will discuss:

- gestational diabetes, diagnoses, treatment, fetal and maternal risks
- kick counts
- nutrition with GD sample meal plan
- carbohydrate counting, label reading, carbs per serving, and the importance of consistency of carbohydrate intake
- lower glycemic diet choices
- blood glucose monitoring



WILL MY BABY NEED EXTRA TESTS?

Special tests may be needed to check the well-being of the baby. These tests may help your ob-gyn detect possible problems and take steps to manage them. These tests may include the following:

- Fetal movement counting ("kick counts")—This is a record of how often you feel the baby move. A healthy baby tends to move the same amount each day. You should contact your ob-gyn if you feel a difference in your baby's activity.
- Nonstress test—This test measures changes in the baby's heart rate when the baby moves. The term "nonstress" means that nothing is done to place stress on the baby. A belt with a sensor is placed around your abdomen, and a machine records the fetal heart rate picked up by the sensor.
- Biophysical profile (BPP)—This test includes monitoring the fetal heart rate (the same way it is done in a nonstress test) and an ultrasound exam. The BPP checks the baby's heart rate and estimates the amount of amniotic fluid. The baby's breathing, movement, and muscle tone also are checked. A modified BPP checks only the fetal heart rate and amniotic fluid level.

DO I NEED TO TAKE MEDICATION?

For some women, medications may be needed to manage GD. Insulin is the recommended medication during pregnancy to help women control their blood sugar. Insulin does not cross the placenta, so it doesn't affect the baby. Your ob-gyn should teach you how to give yourself insulin shots with a small needle. In some cases, your ob-gyn may prescribe a different medication to take by mouth.

If you are prescribed medication, you will continue monitoring your blood sugar levels as recommended. Your ob-gyn should review your glucose log to make sure that the medication is working. Changes to your medication may be needed throughout your pregnancy to help keep your blood sugar in the normal range.



WILL GESTATIONAL DIABETES AFFECT MY DELIVERY?

Most women with controlled GD can complete a full-term pregnancy. If there are complications with your health or your baby's health, labor may be induced (started by drugs or other means) before the due date. Although most women with GD can have a vaginal birth, they are more likely to have a cesarean birth than women without GD. If your ob-gyn thinks your baby is too big for a safe vaginal delivery, you may discuss the benefits and risks of a scheduled cesarean birth.

DO I NEED TO DO ANYTHING DIFFERENT AFTER PREGNANCY?

If you have GD, you should have a blood test 4 to 12 weeks after you give birth. If your blood sugar is normal, you will need to be tested for diabetes every 1 to 3 years.



SHOULD I HAVE ANY FUTURE HEALTH CONCERNS?

GD greatly increases the risk of developing diabetes in your next pregnancy and in the future when you are no longer pregnant. One third of women who had GD will have diabetes or a milder form of elevated blood sugar soon after giving birth. Between 15 and 70 percent of women with GD will develop diabetes later in life. Women who have high blood pressure or preeclampsia during pregnancy also are at greater risk of heart disease and stroke later in life. If you had high blood pressure or preeclampsia during a past pregnancy, tell your ob-gyn so the health of your heart and blood vessels can be monitored throughout your life.

ARE THERE FUTURE HEALTH CONCERNS FOR MY CHILDREN?

Children of women who had GD may be at risk of becoming overweight or obese during childhood. These children also have a higher risk of developing diabetes. Be sure to tell your baby's doctor that you had GD so your baby can be monitored. As your baby grows, his or her blood sugar levels should be checked throughout childhood.

HOW DO I TRACK MY BLOOD SUGAR LEVELS?

You will use a glucose meter to test your blood sugar levels. This device measures blood sugar from a small drop of blood. Keep a record of your blood sugar levels and bring it with you to each prenatal visit. Blood sugar logs also can be kept online, stored in phone apps, and emailed to your ob-gyn. Check with your physician to find out the best way to communicate your blood sugar levels. Your blood sugar log will help your ob-gyn provide the best care during your pregnancy.

WHEN SHOULD I CHECK MY BLOOD SUGAR?

When you are diagnosed with gestational diabetes, you should check your blood sugar four times a day:

- Fasting (first thing in the morning before you eat) this should be at lest 8 hours after your last meal or snack
- One hour after your first bite of breakfast
- One hour after your first bite of lunch
- One hour after your first bite of dinner

WHAT LEVEL SHOULD MY BLOOD SUGAR BE?

Blood Sugar Target Levels

Fasting (before first meal when you wake up)	70-95
1 hour after start of each meal	Less than 140

HOW TO USE A BLOOD GLUCOSE METER:

- After washing your hands, insert a test strip into your meter.
- Use your lancing device on the side of your fingertip to get a drop of blood.
- Touch and hold the edge of the test strip to the drop of blood and wait for the result.
- Your blood glucose level will appear on the meter's display.

Note: All meters are slightly different, so always refer to your user's manual for specific instructions.

WHAT SHOULD I EAT?

When women have GD, making healthy food choices is even more important to keep blood sugar levels from getting too high. If you have GD, you should 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 your blood sugar level. Often, three meals and two to three snacks per day are recommended.

Also, it is important to gain a healthy amount of weight during pregnancy. Talk with your ob-gyn about how much weight gain is best for your pregnancy. For a woman with GD, too much weight gained or weight gained too quickly can make it harder to keep blood sugar levels under control.

MYPLATE FOR PEOPLE WITH GESTATIONAL DIABETES

Use this MyPlate to help manage your blood sugar to keep you and your baby healthy. The image below represents a 10-inch plate.

TOFU

Fruit | focus on whole fruits and do not drink fruit juice.

Eat fruit at meals and snacks except for breakfast. Avoid dried fruit. Use a colorful variety of fresh, frozen and canned fruit without added sugars.

Non-starchy vegetables |

use fresh, frozen or low-sodium canned vegetables Enjoy green leafy and various colored vegetables.



Milk | choose only unsweetened fat-free (0%), low-fat (1%) milk, yogurt, or fortified soy milk. Do not eat yogurt or drink milk at breakfast.

Whole grains | eat 100% whole grains. For diabetes, beans and starchy vegetables like winter squash and sweet potatoes count as grains. Avoid cold breakfast cereals and instant noodles.

Protein | choose lean protein

Eat cooked fish low in mercury twice per week. Every day eat plant protein like tofu, seeds and nut butter. For diabetes, cheese is a protein food. Avoid salami, hot dogs and bologna.

TIPS

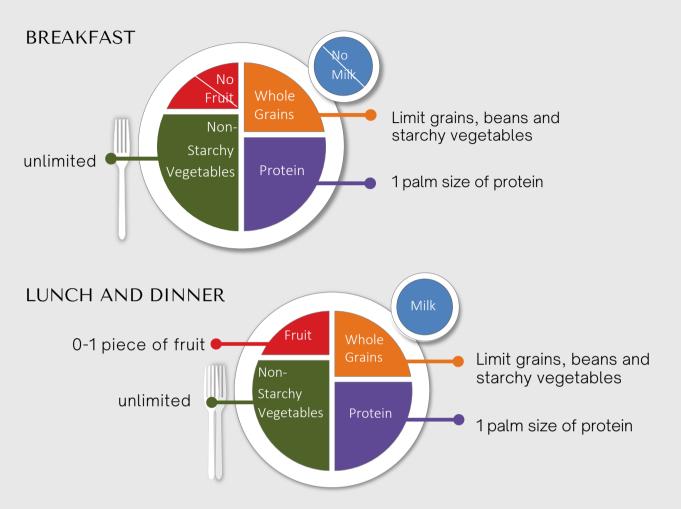
- Keep your blood sugar in control by eating protein and limiting highlighted foods at each meal.
- Add healthy fats like avocados, fish, seeds, nuts and plant oils like canola, safflower and olive oil to your meals.
- Choose healthy beverages. Drink water throughout the day and limit caffeinated beverages like coffee and tea.
- Take a vitamin pill with 400 mcg of folic acid every day.

MYPLATE

MYPLAN | FOR PEOPLE WITH GESTATIONAL DIABETES

Until you meet with the registered dietitian/Nutritionist, use this *MyPlate for People with Gestational Diabetes* for guidance in each food group you need every day.

Meals may look like this:



SNACKS

Include protein and unlimited non-starchy vegetables. You may include limited amounts of food from the fruit, grain or milk group. Examples of snacks:

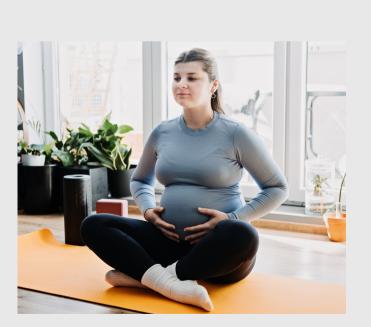
- 1 slice whole grain toast + 1 ounce cheese + salsa
- 1/4 cup tuna salad + 4 to 6 whole grain crackers
- 1/2 banana + 12 almonds + unlimited non-starchy vegetables

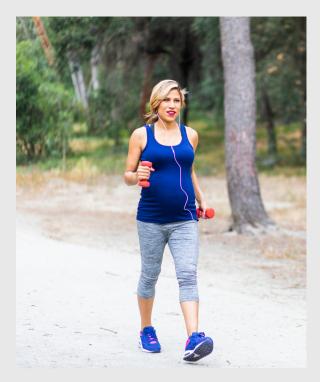
EVERY DAY I WILL...

- Eat 3 meals and 3 snacks, 2 3 hours apart.
- Drink plenty of fluids. I will choose caffeine-free, sugar-free beverages.
- Not allow more than 10 hours to pass between my bedtime snack and breakfast.
- Limit coffee to no more than 2 cups daily and do not drink alcohol.
- Read food labels to avoid added sugars. Limit artificial sweeteners to 1 2 servings a day.
- Try to walk for 10 15 minutes after each meal, especially breakfast.

DOES EXERCISE HELP?

Exercise helps keep blood sugar levels in the normal range. You and your obgyn can decide how much and what type of exercise is best for you. In general, 30 minutes of moderateintensity aerobic exercise at least 5 days a week is recommended (or a minimum of 150 minutes per week). Walking is a great exercise for all pregnant women. In addition to weekly aerobic exercise, it's a good idea to add a walk for 10 to 15 minutes after each meal. This can lead to better blood sugar control. Ask your friends and family to help you make time to exercise or to go with you.





HOW CAN I MANAGE STRESS?

Illness and emotional stress can make your blood sugars go up even when you are following your diet. Relaxing your body can reverse this effect. Exercise is one of the best ways to relieve stress, as long as your ob-gyn says it is safe to do so. Prenatal yoga is another great way to manage stress. If you feel overwhelmed or have family stress, use breathing, meditation, or any other relaxation techniques that you've learned.

- **Breathe deeply:** Sit comfortably and put your hand on your belly. When you breathe, let your belly rise instead of your shoulders.
- Relax your muscles: Tighten the muscles in your feet by flexing them, and then let them slowly relax. Now do this with your lower legs, and on up with each part of your body.
- Imagine a quiet, restful place: Picture it in your mind. Rest your hand on your belly and picture your uterus being a safe, comfortable place for your baby to rest and grow. 9

If you have gestational diabetes, you are not alone. We understand that the recommendations in this booklet are hard work. We do not expect anyone to be perfect. Do your best, and remember we are here to help!

> Content adapted from the American College of Obstetricians and Gynecologists, MyPlate California, Communicare Health Centers, and the American Diabetes Association.

Ne are here to help



Gestational Diabetes Blood Sugar Log

Date	FASTING	AFTER BREAKFAST	AFTER LUNCH	AFTER DINNER	Notes

Blood Sugar Target Levels

Fasting (before first meal when you wake up)

70-95

1 hour after start of each meal

Less than 140





For questions or additional information please contact our office via the patient portal, Healow app, or by phone 775.883.3636

