



Obstetrical
Gynecological

Associates, Inc. *We Understand Women.*

GESTATIONAL DIABETES



OGA EDUCATIONAL SERIES



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WELCOME

Welcome to Obstetrical and Gynecological Associates (OGA). Thank you for choosing us for your care. We are women, mothers, sisters and daughters, just like you, so we understand your concerns and relate to your needs. Our mission is to always expect the best outcome while providing caring, competent and compassionate care.

OGA EDUCATIONAL CLASSES

For the latest information, visit www.weunderstandwomen.com/classes.

GESTATIONAL DIABETES

Your healthcare provider diagnosed you with gestational diabetes because your gestational diabetes screening test came back elevated. This doesn't mean that you did anything wrong. And it doesn't mean that your baby will be born with diabetes. But it does mean that you need to take special care of yourself so you and your baby stay healthy.

What Is Gestational Diabetes?

Gestational diabetes is a special kind of diabetes that happens only during pregnancy (gestation). Changes that occur in your body while you're pregnant cause your blood sugar to be too high. Gestational diabetes is more likely in women who:

- Have a family history of diabetes.
- Have had a baby who weighed more than nine pounds at birth.
- Have had a baby who died before birth.
- Have had gestational diabetes in the past.
- Are Latina, African American, Native American, South or East Asian, or Pacific Islander.
- Are overweight. Being overweight is defined as having a body mass index (BMI) of 25-29.9.

Obesity is defined as having a BMI of 30 or greater. Within the general category of obesity, there are three levels that reflect the increasing health risks that go along with increasing BMI:

- Lowest risk is a BMI of 30-34.9
- Medium risk is a BMI of 35.0-39.9.
- Highest risk is a BMI of 40 or greater.



You can find out your BMI by using an online BMI calculator on a web site such as http://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmicalc.htm

UNDERSTANDING BLOOD SUGAR

Your body turns food into blood sugar. This gives your body energy. Your blood sugar also goes to your baby. If your blood sugar level gets too high, it can cause problems for your baby and for you. You can help prevent these problems by controlling your blood sugar.

Your Body Turns Food into Blood Sugar

As food is digested, it turns into sugar (glucose), a fuel that feeds your body. This sugar goes into your bloodstream. Your body then releases a substance called insulin to help your body use blood sugar.

Blood Sugar Goes to Your Baby

Your blood sugar goes to your baby through the placenta (special tissue that connects the mother and the baby). Your baby uses this sugar to grow. But the placenta also makes hormones that can disrupt the way your body uses insulin. If your body can't use insulin properly, your blood sugar level gets too high.

Controlling Your Blood Sugar Helps prevent Problems

You can lower your blood sugar by eating right, exercising, and maybe by taking insulin. If you keep your blood sugar in control, the risks to you and your baby are the same as for a normal pregnancy.

Risks to Your Baby

If you don't control your blood sugar, your baby is more likely to have these problems:

- Your baby may grow too large. If your blood sugar stays too high, your baby may be too large (macrosomic) to come through your vagina without injuring the baby's arms and shoulders.
- Your baby's organs may not be fully developed before birth. If your blood sugar stays too high, your baby might have to be born early and baby's lungs may not work well. This is called respiratory distress syndrome (RDS). Your baby's liver also may not work well. Then your baby may be jaundiced for a short time after birth.
- Your baby's blood sugar may be low after birth. If your blood sugar is too high, your baby makes extra insulin. The baby still makes extra insulin right after birth. Then he or she may have to be treated for low blood sugar.
- Your baby could be stillborn. This is very rare, but your baby could die before birth if your blood sugar stays high for too long.



Risks to You

If you don't control your blood sugar, you are more likely to have these problems:

- **You may have high blood pressure:** High blood sugar makes you more likely to have high blood pressure during your pregnancy. (preeclampsia). This is a danger to your health.
- **You may have more infections:** High blood sugar makes you more likely to have bladder, kidney, and vaginal infections.
- **You may be uncomfortable or short of breath:** High blood sugar can cause too much fluid around the baby (polyhydramnios). Your abdomen gets big and pushes on your lungs. You may also go into labor early.
- **Your delivery may be harder and recovery may take longer:** If your blood sugar stays too high, your baby may grow too large. A large baby might cause injury to you during birth. So the baby may have to be delivered by cesarean section (C-section). Needing a C-section is one of the most common risks of gestational diabetes.

EATING RIGHT

Eating the right foods is the main way to control your blood sugar. In fact, most women can keep their blood sugar within a normal range by diet alone. You need to eat plenty of protein, vegetables, dairy and milk, and healthy fats each day. Your lowest quantity of food types should be carbohydrates such as bread, pasta, potatoes, crackers, fruit, candy, cakes, cookies, and ice cream. These foods high in carbohydrates are converted quickly into sugar in your body and raise blood sugar more than others foods. Learning serving sizes helps you know how much to eat of each food. Your healthcare provider can help you make a meal plan that's right for you.

The following pages give basic information and eating suggestions for various food groups.



Starches and Grains	Protein	Vegetables
<p>Starches and grains contain fiber and important vitamins. But they also raise blood sugar if you eat too much at one time.</p> <ul style="list-style-type: none">• Eat at least 7 servings a day. Your meal plan may include more. It will also tell you the serving size for each food.• Choose breads, pasta, rice, and whole beans. Starchy vegetables such as corn, potatoes, and yams are good, too. But avoid instant noodles, cereals, and grains.• Toast, bake, or boil. Don't add sugar or jam.	<p>Protein is digested slowly, so it helps keep your blood sugar stable. Your baby also needs protein to have strong bones and muscles.</p> <ul style="list-style-type: none">• Eat at least 7 ounces a day. You can choose poultry, fish, meat, cheese, cottage or ricotta cheese, eggs, tofu and peanut butter without sugar.• Bake or broil. Remove the skin from fish and poultry, and trim fat off meat before cooking. Avoid frying. Avoid gravy, and batter, and sweet sauces.	<p>Vegetables contain mostly water, so they don't raise your blood sugar. They are also rich in vitamins and high in fiber.</p> <ul style="list-style-type: none">• Eat at least 3 servings a day. A serving is ½ cup cooked or 1 cup raw vegetables. Have one dark green vegetable, such as broccoli, each day.• Choose fresh or plain frozen vegetables. Some canned vegetables have added sugar.• Steam or microwave. Use just a little water. This helps keep the vitamins in.



Milk and Yogurt	Fruit	Fats
<p>Milk and yogurt are rich in calcium and protein. But they also contain sugar, even if they're not sweetened. They raise blood sugars fast.</p> <ul style="list-style-type: none"> • Eat at least 3 servings a day. But have only 1 serving at a time. A serving is 1 cup (8 oz) • Choose plain or “light” yogurt. Look for yogurt with no more than 120 calories in an 8-oz serving. • Limit milk or yogurt at breakfast. At the first meal of the day, they may make your blood sugar rise too high. 	<p>Fruit is high in fiber and vitamins, especially A & C. But fruit also has lots of natural sugar, which quickly turns to blood sugar.</p> <ul style="list-style-type: none"> • Eat 2 to 3 servings a day. Eat only 1 serving at a time. Choose small portions. • Choose fresh fruit. Canned and frozen fruit often have added sugar. • Don't eat fruit for breakfast. This may raise your blood sugar too high. • Don't drink fruit juice. All types of fruit juices are high in sugar. 	<p>Fat raises your blood sugar much more slowly than starch or protein. But fat is high in calories. Eating too much fat can make you gain weight too fast.</p> <ul style="list-style-type: none"> • Go light on fat. Gaining too much weight can make your blood sugar harder to control. It can also make your baby bigger. • Use vegetable fats. Choose canola, olive, sunflower, safflower, or peanut oil. • Avoid frying. Soften onions, and garlic in water. Toast tortillas. Brown meat under the broiler.



Planning Meals

Carbohydrates (starches and sugars) raise your blood sugar more than other foods. They are found in milk, fruit, and starchy foods such as grains, beans, and potatoes. To keep your blood sugar in a healthy range, you need to control the amount of carbohydrates you eat at one time. You need to eat regular meals and snacks. You need to avoid certain foods and you need to gain the right amount of weight.

Eat Regular Meals and Snacks

It's best to eat small amounts every two to four hours. If you eat less often, you're likely to eat too much at once. This may make your blood sugar rise too high. Spread your meals and snacks evenly through the day. Keep the amount of food you eat the same each day.

- **Count carbohydrates:** Your dietitian will teach you how to read food labels for serving size and total grams of carbohydrate. This will help you plan meals and snacks.
- **Limit carbohydrate at breakfast:** Your blood sugar rises most in the morning. So eat no more than 30 grams of carbohydrate at breakfast. Eat a protein with your starch. (see the above chart) Avoid fruit, fruit juice, milk, and cold cereal.
- **Eat a bedtime snack:** Choose something high in protein.

Avoid High-Sugar Foods

Eating foods that are high in sugar (simple carbohydrates) raises your blood sugar more than most other foods. You know that candy and desserts are high in sugar. So are lots of other foods, such as baked beans and spaghetti sauce. Follow the tips below:

- **Read the ingredients on the food label:** Avoid foods that list any of these kinds of sugar in the first four ingredients:

sugar	dextrose
honey	fructose
molasses	glucose
corn syrup	corn sweetener
sucrose	



- **Low-fat doesn't mean low sugar:** Low-fat versions of foods, such as salad dressing or ice cream, can be high in sugar. Read the label.
- **Beware of sauces:** Barbecue sauce, teriyaki sauce, hoisin sauce, catsup, chutney, and most other condiments have added sugar. Read the label.
- **Avoid alcohol:** Alcohol can affect your blood sugar in ways that are hard to predict. Drinking alcohol also raises your baby's risk of having problems after birth.
- **Use sugar substitutes in moderation:** The effect of aspartame and other sugar substitutes on mother and baby is not well understood.

How Much Weight Should You Gain?

You need to gain some weight so your baby will grow. But gaining too much weight can make your blood sugar harder to control.

- If your weight was normal before pregnancy: your goal is to gain 25-35 pounds.
- If you were overweight before pregnancy: your goal is to gain 15-25 pounds.
- If you were underweight before pregnancy or you are under 18: your goal is to gain 28 to 40 pounds.

Meal Tips

- Pack the next day's lunch and snacks the night before. This saves time for breakfast in the morning
- Keep a timer or beeper with you. Set it to remind you when to eat.
- Try to have your family eat the same foods you do. This makes meal planning and shopping easier.



GETTING EXERCISE

Exercise can help you keep your blood sugar within a normal range. That's because your body uses more blood sugar when you exercise. Your healthcare provider may want you to exercise everyday. Together you can decide on the best kind of exercise for you, and the best times for you to exercise.

Exercise Safely

Walking, swimming and low-impact or water aerobics are the safest things to do.

- Avoid activities in which you jump, turn, twist, stop or start quickly, or lift heavy weights.
- Be sure not to get overheated.
- Drink plenty of water.
- If you use insulin, be sure to carry a carbohydrate snack with you.
- If you walk or do low-impact aerobics, be sure to wear sturdy shoes.

Exercise Regularly

You may need to exercise each day. The best time to exercise depends on when your blood sugar is highest. Your educator/dietitian will work with you to make an exercise plan that fits your needs.

- Aim to exercise for 30 to 60 minutes a day.
- Try breaking up daily exercise into two or three sessions. For example, go for a 15-minute walk after each meal.
- Exercise with a friend or your partner. This may help you stick to your exercise plan.
- Go at a comfortable pace. Don't tire yourself out.

When to stop exercising

- You feel short of breath, dizzy, or faint.
- You have pain in your back or abdomen.
- Your heartbeat becomes irregular.

When to Stop and Call Your Healthcare Provider

- You have four or more contractions in an hour.
- You are bleeding from your vagina.



MONITORING YOUR BLOOD SUGAR

The only way to be sure your blood sugar stays with a normal range is to check it. You will be checking your blood sugars four times a day. Your diabetic educator will teach you how.

Checking Your Blood Sugar at Home

Your healthcare provider will discuss the best way and times for you to check your blood sugar, and show you what to do. Your blood sugar is usually highest about an hour after you eat. You can check it using a glucometer.

- Be sure to read the instructions that come with your glucometer. Follow them carefully.
- Record your blood sugar level every time you check it. Bring your records with you to all your doctor appointments.
- If your blood sugar is unusually low or high, check it again in 20 to 40 minutes.

IF YOU NEED INSULIN

Your body may not be able to make enough insulin. If this happens, you'll need to take extra insulin. Taking insulin helps control your blood sugar without harming your baby. Insulin is a natural substance and is not addictive. You will most likely be able to stop taking insulin after your baby is born.

Learning to Take Insulin

Your healthcare provider will prescribe your insulin. You will need to inject it one or more times a day. Insulin is injected into fatty tissue. It does not cross the placenta. That means it does not affect your baby. Your diabetic educator will teach you how to give yourself a shot. With practice, you'll get comfortable doing it yourself.

Finding the Right Dose for You

Your doctor will work with you to find the right dose of insulin for you. This may take time. That's because you need to balance your insulin with your food and exercise. Your body's need for insulin also increases as your baby grows. To be sure your insulin is working properly, you'll need to check your blood sugar several times a day. If your blood sugar is too high or too low, your healthcare provider will adjust your insulin.



Low Blood Sugar

Taking insulin puts you at risk for low blood sugar. Always treat low blood sugar right away.

- Symptoms of low blood sugar include shakiness, dizziness, weakness, and confusion.
- If you feel any of these symptoms, check your blood sugar right away.
- To treat low blood sugar, eat 15 grams of fast-acting sugar, such as glucose tablets. Check your blood sugar again in 15 minutes. If your blood sugar is still low, eat another 15 grams of sugar.
- If your blood sugar does not return to target range in 30 minutes, call your healthcare provider.

CHECKING ON YOUR BABY

It's normal to worry about your baby's health. One way that you can know your baby's doing well is to record the baby's movements once a day. Your doctor may also may do tests to check on your baby's size and development. These tests help plan for your labor and delivery.

Kick Counts

Starting around week 26 of your pregnancy, your doctor may have you count your baby's movements once a day. This is call kick counts. Choose a time when the baby is active such as after a meal. Here is one way to do it:

- Sit comfortably or lie on your side.
- The first time the baby moves, write down the time.
- Count each movement until the baby has moved 10 times. This usually takes 10 to 20 minutes. If the baby hasn't moved four times in one hour, pat your stomach to wake the baby up or drink a cold glass of water.



Other Tests

Your doctor may order tests to make sure your baby is doing well. These may include:

- **Non-stress test (NST):** A special belt is put around your waist to monitor your baby's heart rate.
- **Biophysical profile (BPP):** The fetal biophysical profile (BPP) is a noninvasive procedure for evaluating the fetus for signs of wellness. Ultrasound is used to assess four discrete biophysical parameters: fetal movement, fetal tone, fetal breathing, and amniotic fluid volume.
- **Ultrasound:** Harmless sound waves make a picture (sonogram) of your baby on a screen. The picture shows your baby's size and position. This helps to plan the safest way to deliver your baby.
- **Amniocentesis:** A sample of the fluid around your baby is removed and tested to see whether the baby's lungs can work on their own. This test may be done if the baby needs to be delivered early.

When to Call Your Doctor

Call your doctor right away if you notice any of the following:

- Your baby moves fewer than 10 times in two hours while you're doing kick counts.
- Your baby moves much less often than on the days before.
- You have not felt your baby move all day.

DURING LABOR AND DELIVERY

Your doctor will work with you to plan your delivery. If you control your blood sugar, you are more likely to have a healthy birth. Taking a childbirth education class can also help you prepare for labor and delivery. You and your baby will be monitored to make sure you're both doing well.

Planning Your Delivery

Your doctor will recommend the best way to deliver your baby. If your tests are normal, you can probably go into labor naturally and deliver your baby through the vagina. If your baby is large or your tests show a problem, labor may be started early. The baby may also be delivered by cesarean section.



Monitoring You and Your Baby

Both you and your baby are watched closely throughout your labor and delivery.

- **Your blood sugar is monitored:** If it's too high, you may need insulin. Keeping your blood sugar normal during labor helps keep your baby from having low blood sugar after birth.
- **Your contractions may be measured:** A monitor is placed on your abdomen.
- **Your baby's heart rate is monitored:** This helps make sure the baby is doing well. A monitor is placed on your abdomen or inside your vagina: The baby's heart rate is also checked after delivery.
- **Your baby's blood sugar is tested:** This is done in the first hour after delivery. If the baby's blood sugar is low, the baby will be monitored and treated for a few hours.

AFTER PREGNANCY

Your blood sugar will most likely return to normal after delivery. However, gestational diabetes is a warning sign that you are at risk for getting diabetes later in life. You are also more likely to have gestational diabetes with your next pregnancy. But you can take steps to reduce these risks.

Taking Care of Yourself

Even if your blood sugar goes back to normal, you still need to take care of yourself. This will help prevent diabetes later in life.

- **Keep your weight down:** Finding a healthy eating lifestyle can help you control your weight. If you're overweight, your risk of getting diabetes in 10 to 15 years more than doubles. Keeping your weight down also reduces your risk of having gestational diabetes with your next pregnancy.
- **Get regular exercise:** Exercise helps lower your blood sugar. It can also help you control your weight.
- **Have your blood sugar checked:** Make an appointment to have your blood sugar checked six to eight weeks after delivery.
- **Have regular diabetes screenings:** Get checked every year, or as often as your doctor advises.



Breastfeeding

Breast milk is the best food for your baby. Breastfeeding may also help lower your blood sugar. Consider taking a breast feeding class before the baby is born. Your healthcare provider and lactation consultant can show you how to breastfeed. Be sure to eat a good diet and drink extra water while you're breastfeeding.

Planning Future Pregnancies

You need to be sure your blood sugar is back to normal before you get pregnant again. Have your blood sugar checked before you plan your next pregnancy. And remember that it's possible to get pregnant again soon after delivery. Talk to your doctor about the best method of birth control for you and your partner.

For You and Your Baby

The health of you and your baby depends on how well you control your blood sugar. To do this, follow your meal plan everyday. See your doctor regularly. Check your blood sugars daily as directed. Doing all of these things helps make sure you and your baby stay healthy.