

GESTATIONAL DIABETES







What is gestational diabetes?

Gestational diabetes is a type of diabetes that happens only during pregnancy. When you eat, some of the food turns into glucose (sugar) and goes into your bloodstream.

An organ in your body called the pancreas makes insulin, a hormone that helps your body use glucose for energy.

With gestational diabetes, your body cannot make enough insulin or use it effectively, causing high blood glucoses.

In addition, hormones released by the placenta during pregnancy can raise glucoses. High blood glucose levels can cause problems for baby and mother.

Healthy eating and regular exercise or activity are the main treatments for gestational diabetes. These healthy lifestyle changes are good for every pregnant woman and her family. Some women also need medicine to manage their blood glucoses.

Coping with gestational diabetes

Feelings of anger, fear, sadness and disbelief are common when you are told you have gestational diabetes. Remember that gestational diabetes is something you can manage and take control of with lifestyle changes. Making lifestyle changes can be challenging. Some of the usual thoughts about pregnancy — “giving in to cravings” and “eating whatever you want” — need to be set aside for the health of your baby. Taking good care of yourself and managing your glucoses is one of the best gifts you can give your baby. Your doctor or midwife, diabetes nurse, and dietitian will give you information and support in this journey.

Who is at risk for gestational diabetes?

There is no specific cause of gestational diabetes. These risk factors increase your chances of having gestational diabetes:

- Gestational diabetes with a previous pregnancy
- Overweight or obese
- Hispanic/Latina, African American, Native American, Asian, African, Pacific Islander or other high risk ethnic groups
- Pregnancy with more than one baby (twins, triplets)
- PCOS (polycystic ovary syndrome)
- Family history of diabetes
- Prediabetes
- Previous birth to a baby over 9 pounds
- History of a stillbirth



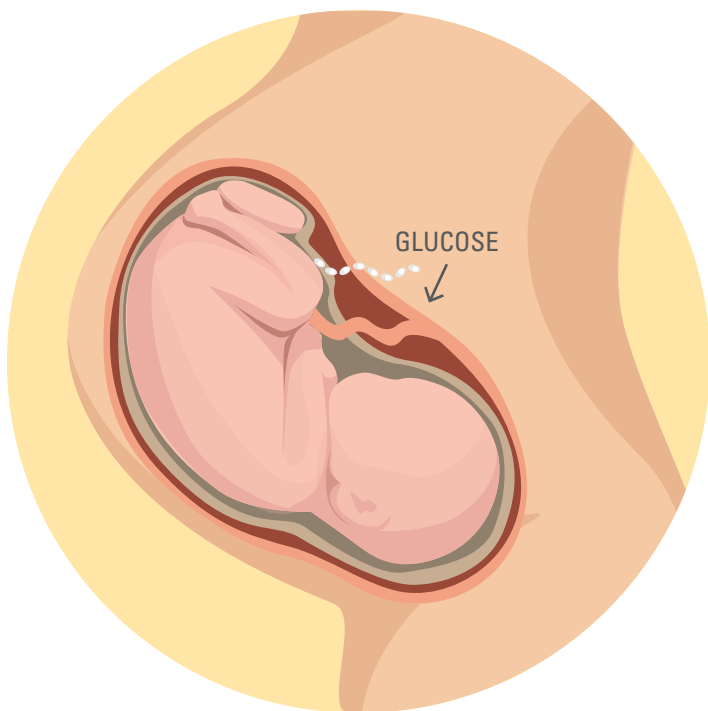
How can gestational diabetes affect baby?

Mom's glucose goes to the baby through the placenta. If mom's glucose level is high, baby also gets too much glucose. High blood glucose levels are not healthy for baby and can cause these problems:

- Increased birth weight
- Low blood glucose (hypoglycemia) after birth
 - Baby makes extra insulin if mom's glucose is high during pregnancy.

When baby is born, he/she is suddenly not getting the high glucose from mom, but baby's body keeps making more insulin. This extra insulin is more than baby needs, and causes baby's glucose to drop too low.

- Breathing problems (caused by delayed lung development)
- Jaundice
- Difficult delivery, including shoulder dystocia (baby's shoulder gets stuck behind the pubic bone)
- In rare cases, stillbirth
- Children of women with gestational diabetes are at increased risk for obesity and type 2 diabetes.



How does gestational diabetes affect mom?

High blood glucose levels during pregnancy increase mom's risk for:

- Cesarean section delivery
- Preeclampsia
 - High blood pressure
 - Protein in the urine
 - Swelling in hands, legs and feet
- Difficult labor and delivery
- Preterm labor
- Kidney, bladder and vaginal infections

GLUCOSE CONTROL MATTERS!

By keeping your blood glucose levels in the goal range, you can reduce the risk for these problems for mom and baby. Healthy eating, regular exercise and medication, if needed, are the tools for successful gestational diabetes care.

Exercise and activity

Regular exercise helps your body burn extra glucose and lower your glucose levels. Walking and swimming are great exercises during pregnancy. The goal is 30 minutes of exercise or increased activity every day.* You can divide this into 10 or 15 minute segments throughout the day. Walking for 10 minutes after each meal may help to bring your glucose to target at 1 hour. Light resistance training can also help to improve glucose control. If you experience any cramping, pain, spotting or shortness of breath, stop the activity, rest and call your provider if you don't feel better in a short time.

*If you are on bed rest or other activity restrictions, follow the directions of your provider.

Healthy eating with gestational diabetes

Healthy nutrition is the most important tool in managing gestational diabetes. Eating healthy foods in the right amounts at the right times helps:

- Keep your blood glucose levels in the target range
- Give baby the nutrition to grow to a healthy size
- Mom gain a healthy amount of weight

These nutrition guidelines are important when you have gestational diabetes. Your registered dietitian will develop a meal plan to help you meet these goals.

- Carbohydrate foods break down into glucose (sugar) and have the greatest effect on your blood glucose levels. You and your baby need carbohydrate, protein and fat for energy.
- Eat a balanced plate with healthy portion sizes.
- Eat 3 meals and 2 to 3 snacks per day at about the same time. Consistency helps with glucose control.
- Eat every 3 to 4 hours while you are awake. Plan your meals and snacks so you are not hungry during your sleep time, as it's best not to eat then.
- Measure your portion sizes to be sure you are getting the right amount of food for glucose control.
- Eat more fruits and vegetables.
- Drink plenty of water.
- Limit foods and ingredients that are high in sugar: honey, jam, syrup, sugar and brown sugar, agave, high fructose corn syrup.



- Work to decrease sweet treats (cookies, candy, cake, pie, ice cream). A good goal is to limit a treat to once per week.
- Limit caffeine from coffee, tea and diet soda. Caffeine does not affect your blood glucose, but too much is not healthy for baby.

A bedtime snack with carbohydrate and protein usually helps keep the fasting glucose level in goal range. Some women find that not eating a bedtime snack works better, so consult with your dietitian to find the best plan for you.

Bedtime snack options:

- 1 piece of toast with peanut butter, cheese or avocado
- 12 Wheat Thins with 1 ounce cheese
- 1 cup white milk
- Greek yogurt with nuts

DO NOT eat or drink these foods or beverages. They cause high glucose levels and do not provide healthy nutrition.

- Regular pop
- Juice, even 100 percent fruit juice
- Other sweet beverages – lemonade, Kool-Aid, Hi-C, Sunny D, Gatorade, specialty coffee drinks
- Breakfast pastries – Pop Tarts, Toaster Strudels, sweet rolls, donuts
- Pancakes or French toast
- Cereal – especially cereal with marshmallows, chocolate, fruit, granola clusters or sugar coating
- Ramen noodles
- Asian foods like sweet Chinese dishes, sticky rice

Keep food records to help identify what foods/beverages work best to keep your glucoses in the target range and which ones cause higher glucoses.

SAMPLE MENU

Breakfast

- 2 slices whole-grain toast
- 1-2 eggs or 2 tablespoons peanut butter
- Decaffeinated coffee or tea

Morning Snack

- 1 small apple
- 12 almonds

Lunch

- 2 cups homemade vegetable-beef soup
- 4-6 oz. Greek vanilla yogurt
- 3/4 cup blueberries
- Salad using mixed lettuce and spinach with 3-4 other non-starchy vegetables (such as: sugar snap peas, carrots, cucumbers, mushrooms)
- 2 tablespoons vinegar and oil dressing (can use light Italian)

Afternoon Snack

- 15 grapes
- 1 string cheese

Evening Meal

- 1 medium sweet potato
- 3-4 ounces baked chicken
- 1 cup milk
- Salad (choose from the non-starchy vegetable list similar to lunch)
- 2 tablespoons salad dressing (similar to lunch)

Bedtime Snack

- 12 Wheat Thins (or other whole-grain cracker)
- 1 tablespoon peanut butter or 1 ounce cheese

Blood glucose monitoring

Checking your blood glucose level helps you and your health care team know how different foods, activity and medication affect your glucoses.

GLUCOSE MONITORING TIPS:

- Clean hands are important for accurate glucose readings. Wash with soap and water or clean with an alcohol pad before every check. Do not use hand sanitizer, as that can affect glucose readings.
- Use the sides of your fingers for the blood sample. Use different fingers and areas of the finger when you check.
- Change the lancet (a small needle to poke your finger with) at least once per day, using it a maximum of 4 times.

TIMES TO CHECK

Fasting

1 hour after breakfast

1 hour after noon meal

1 hour after evening meal

BLOOD GLUCOSE TARGET

Under 95

Under 140

Under 140

Under 140

Check your fasting glucose within 5 to 10 minutes after you are up for the day. After meal checks should be done 1 hour after you finish the meal. If you check at 2 hours after eating, the target is under 120.

Write your blood glucose numbers in a logbook or track them using an app. Make a note if you have a number outside the target range and you know what caused it (for example: ate out, birthday cake, poor sleep).

Bring your glucose meter and log book/phone app to ALL appointments. This includes your doctor or midwife, ultrasound and diabetes education visits.

These things will **RAISE** your blood glucose:

- Food
- Beverages with calories
- Stress
- Poor sleep
- Illness

These things will **LOWER** your blood glucose:

- Exercise or activity
- Diabetes medication

Medication for gestational diabetes

Sometimes healthy eating and exercise alone are not enough to keep glucoses in the target range during pregnancy. Medication needs to be added to the treatment plan. Insulin is the recommended treatment for gestational diabetes, as it is most effective and safest for mom and baby. Diabetes pills may be used in some situations, based on provider discretion. If you need to start insulin, you will be taught how to give the injections and followed closely for insulin adjustments.

Once you need medication for glucose control, more frequent monitoring of baby is required. You will have an ultrasound to measure baby's growth every 4 weeks. Starting at 32 weeks, you will need a once weekly biophysical profile or twice weekly non-stress test. A fetal biophysical profile combines heart rate monitoring and ultrasound to check a baby's heart rate, breathing, movements, muscle tone, and amniotic fluid level.

After baby is born

Baby's blood glucose will be checked after delivery to be sure that it's not too low. If baby has low glucoses, nursing or bottle-feeding will be encouraged to raise baby's glucoses. It may take several hours for baby's glucoses to reach a safe level. Glucose gel may also be used. When baby's glucoses are very low and/or not responding to feeding, baby may need to get IV glucose and receive care in the Neonatal Intensive Care Unit (NICU).

After you deliver, your body should be able to make and use enough insulin for your glucoses to return to normal. Your glucoses may be checked after delivery based on your provider's preference. Most women do not need to continue checking glucoses at home after they deliver. It is very important to have your glucose checked 4 to 12 weeks after you deliver to make sure that your glucose has returned to normal. This can be done with a fasting glucose or a glucose tolerance test, and will be ordered by your doctor or midwife.

Breastfeeding your baby

Breastfeeding has many health benefits for your baby and you. Babies who are breastfed have greater protection against illness, improved dental health and improved brain development. Breastfeeding can help you return to your pre-pregnancy weight faster and provides a wonderful opportunity to bond with your baby. You may reach out to your local care provider for tips to help you with breastfeeding. All women are also welcome to contact Avera McKennan Breastfeeding Support Services at 605-322-4490 for assistance.

Risk for diabetes in the future

Women who've had gestational diabetes are at higher risk for type 2 diabetes. The risk can be up to 60% within 5 years. You are also at higher risk for prediabetes, a condition where your blood glucose is not normal, but not yet high enough to be called diabetes. You can reduce your risk for prediabetes and type 2 diabetes with healthy eating, regular exercise, and reaching and maintaining a healthy weight. All of the guidelines recommended for gestational diabetes are excellent lifestyle changes for you and your whole family to follow for good health into the future. Get your glucose tested at least every three years as part of your routine health care visits.

You are at risk for having gestational diabetes with future pregnancies. Plan for future pregnancies and make sure your blood glucose is normal before you conceive. Remember that it's possible to get pregnant again soon after delivery. Talk with your doctor/midwife about the best method of family planning for you.

You can do it!

Managing gestational diabetes is hard work. But remember that taking action for the health of you and your baby is so worth it. Contact your diabetes care team at any time if you have questions or concerns. We are here to help you!

Avera's mission is to make a positive impact in the lives and health of persons and communities by providing quality services guided by Christian values. We believe all persons have a right to medically necessary health care regardless of ability to pay. If you think you may have problems paying part of your bill, contact your local business office or billing staff. We can discuss payment options that may be available to you.





