

Gestational Diabetes

Nutrition guidelines



This handout is for patients who have gestational diabetes. It explains how the condition occurs and gives guidelines for meeting your special nutritional needs.

What is gestational diabetes?

Diabetes Mellitus means that the blood sugar is too high. *Gestational diabetes mellitus*, or GDM, is a temporary type of diabetes that can happen during pregnancy.

GDM happens around week 24-28 of pregnancy. This is when your body makes extra hormones to help the baby grow. GDM often goes away after the baby is born.

What causes GDM?

Some pregnancy hormones can block your body from using *insulin*. Insulin helps our cells use food for energy. An organ called the *pancreas* makes insulin.

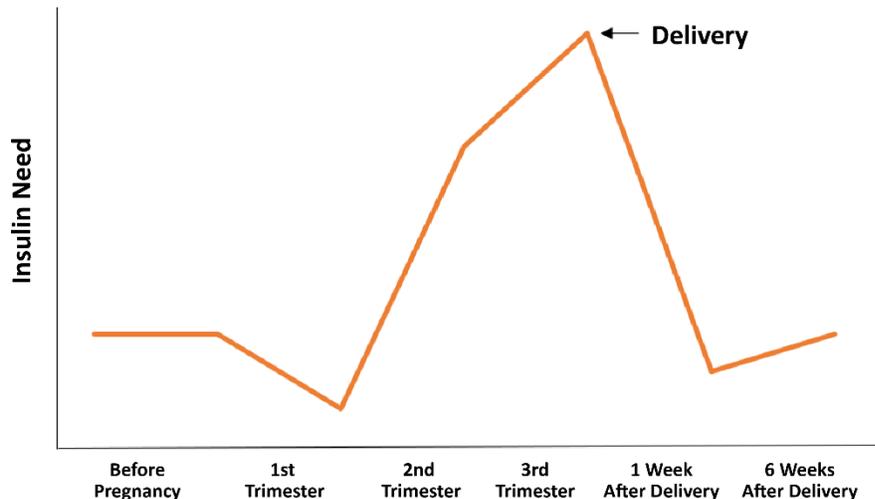
When pregnancy hormones are very high:

- Insulin doesn't "latch" properly to the cells in your body. This is called *insulin resistance*.
- Your pancreas makes extra insulin to keep your blood sugar levels steady.

If your pancreas cannot make enough insulin, glucose (sugar) cannot move from the blood into the cell to be used as energy. Instead, the sugar in your blood rises above normal. This causes GDM.

Your Need for Insulin During Pregnancy

This graph shows how your need for insulin changes because of insulin resistance during pregnancy. The need for insulin grows until the baby is delivered, and then usually drops off quickly. Most times, your insulin need will return to normal around 6 weeks after delivery.



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Is this because of what I've been eating?

No. Food choices during pregnancy do not cause GDM. There is no diet that can prevent GDM. There is nothing that you did that made your body have GDM.

Will my baby be healthy?

Yes. Your baby can be healthy with treatment to keep your blood sugar as close to normal as possible. High blood sugar can make your baby gain extra weight. This can cause problems for you and your baby during labor and birth. Your doctor and your dietitian will work with you to keep your blood sugar normal.

How is GDM treated?

- **Food:** You will work with your dietitian to make a plan for how to eat to keep your blood sugar in a good range. You will use what you learn and keep track of your blood sugar to discover what eating plan works best for you.
- **Blood sugar monitoring:** You will need to check your blood sugar each morning and after meals. This will help you know how much carbohydrate is right for you.
- **Diabetes medicines:** Some patients will also need to take diabetes medicine. If your doctor prescribes diabetes medicine, you must still manage your carbohydrate intake for the rest of your pregnancy.

Basic Nutrition Guidelines for GDM

- **Keep eating how you have been for the first 3 days after you begin checking your blood sugar.** Use the numbers from your meter to help you know what to change.
- **Eat foods with carbohydrate, protein, and fat at each meal.**
- **Eating small meals more often may help you reach your blood sugar goals.** Start with breakfast and eat every 3 to 4 hours.
- **Keep your carbohydrate intake at the same level from day to day.** Carbohydrate foods include starches, fruits, milk, and sweets (desserts).
- **You may have more insulin resistance in the morning.** If you notice your blood sugar is high before or after breakfast, try eating less carbohydrates in the morning and watch to see if your blood sugar is lower.
- **Drink plenty of water!** Besides plain water, you can also try other sugar-free beverages like seltzer, mineral water, flavored water, or others. Avoid sweetened beverages.
- **Eat plenty of fiber.** Choose breads, cereals and crackers with at least 3 grams of fiber per serving. Include fresh fruits and vegetables in your menus every day. Watch how fiber affects your blood sugar readings.
- **Write your meals and blood sugar readings in a diary.** Your diary will help you know how much carbohydrate is right for you for meals and snacks.

Carbohydrates and Gestational Diabetes

Carbohydrate foods are necessary for your growing baby. Ask your dietitian how many grams of carbohydrate you need each day. In GDM, insulin resistance is often greater in the morning hours and lower in the afternoon and evening. This means you may have higher blood sugar readings in the morning.

Here is a basic guideline for your daily carbohydrate intake:

- **Meals:**
 - **Breakfast:** 15 to 30 grams of carbohydrate
 - **Lunch & Dinner:** 45 to 60 grams of carbohydrate
- **Snacks:** 15 to 20 grams of carbohydrate

Each person's body is different. Check your blood sugar after each meal to help you know how carbohydrate foods affect you.

Blood Sugar Goals

Test in the morning (fasting) and 1 hour after your first bite of food for each meal. If you miss the 1-hour mark, there is also a number for 2 hours. Here are your goals for blood sugar, both fasting and after a meal:

- **Fasting blood sugar** = between 63 and 94 mg/dL
- **1 hour after a meal** = less than 140 mg/dL
- **2 hours after a meal** = less than 120 mg/dL

Check your blood sugar **4 times per day** until you deliver. Even if your blood sugar is okay this week, blood sugar often gets higher later in pregnancy.

Carbohydrate Foods

Here are some common carbohydrate foods. Each portion listed equals **15 grams of carbohydrate**:

- 1 cup milk (whole, 1%, 2%, sweetened soy)
- 1 cup high-protein yogurt (Greek or Icelandic)
- ½ cup cooked hot cereal
- 1 slice of bread
- 1 medium tortilla
- ½ English muffin
- ⅓ cup **cooked** rice or pasta
- 3 to 4 cups plain popcorn
- ½ cup corn or peas
- ½ medium baked potato
- ½ cup mashed potato
- ⅓ cup **cooked** beans or lentils
- 4 to 6 crackers
- ¾ cup berries
- ½ banana
- 1 apple (tennis ball size)

Sample Menus

	Option #1	Option #2
<u>Breakfast</u> 15 to 30 grams (g) carbohydrate; include a protein food	1 slice wheat toast – 15 g Peanut butter, eggs, or meat – 0 g 1 cup high protein yogurt – 15 g <hr/> Total: 30 grams	½ English muffin – 15 g Cheese – 0 g ¾ cup blueberries – 15 g <hr/> Total: 30 grams
<u>Morning Snack</u> 15 to 20 g carbohydrate	3/4 cup melon – 15 g 1-2 handfuls of nuts - 0 g	Plain high protein yogurt - 10 g ½ cup Cheerios - 10 g
<u>Lunch</u> 45 to 60 g carbohydrate; include a protein food	Sandwich with 2 slices bread - 30 g Fish, poultry, meat, lettuce, mayo - 0 g ¾ cup berries – 15 g Vegetables (non-starchy) or vegetable soup (without noodles or rice) - 0 g <hr/> Total: 45 grams	Vegetable salad with ½ - ¾ cup protein - 0 g Salad dressing - 0 g Wheat roll (2 oz.) or 8 to 12 crackers - 30 g ½ banana – 15 g <hr/> Total: 45 grams
<u>Afternoon Snack</u> 15 to 20 g carbohydrate	4 to 6 crackers – 15 g Cheese - 0 g <hr/> Total: 15 grams	1 apple (tennis ball sized) – 15 g 1-2 handfuls of nuts - 0 g <hr/> Total: 15 grams
<u>Dinner</u> 45 to 60 g carbohydrate; include a protein food	3 to 4 oz. fish, poultry, pork, or beef - 0 g 1 cup potato - 30 g Vegetable salad - 0 g Salad dressing - 0 g ½ cup ice cream – 15 g <hr/> Total: 45 grams	3 to 4 oz. fish, poultry, beef, or tofu - 0 g 1 cup rice or pasta - 45 g ½ cup sauce - 10 g Vegetables (non-starchy) - 0 g <hr/> Total: 45 grams
<u>Evening Snack</u> 15 to 20 g carbohydrate	1 tablespoon nut butter - 0 g ½ banana – 15 g <hr/> Total: 15 grams	2 to 3 cups popcorn – 15-20 g Grated Parmesan cheese - 0 g <hr/> Total: 15-20 grams

Be a Smart Shopper

When choosing packaged foods, always check the Nutrition Label. Here's what to look for:

- **Serving Size:** Is it more or less than the amount you are planning to eat?
- **Total Carbohydrate:** Carbohydrates raise blood sugar more than other nutrients. How many grams of carbohydrate do you aim to have at each meal?
 - Keep in mind that “total sugar” is *included* in Total Carbohydrate. Do **not** add these numbers together.

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 100mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

The Nutrition Facts label on packaged foods shows the amount of Total Carbohydrate in 1 serving.

Does having GDM affect me later in life?

- GDM usually goes away after delivery when the hormones return to their normal levels. About half of all patients who have GDM develop **type 2 diabetes** later in life.
- Get tested for diabetes about 6 weeks after your baby is born. Your doctor will check that your blood sugar has returned to normal. If your blood sugar is still high, you may have type 2 diabetes.

What can I do to prevent or delay type 2 diabetes later in life?

You can do a lot to prevent or delay type 2 diabetes. Here are steps to take if you have GDM:

- Stay active and get regular exercise.
- Eat a varied diet including whole grains, lean proteins, vegetables, and fruit.
- Breastfeed your baby. This may lower your risk of developing type 2 diabetes later in life.
- Tell all your future healthcare providers that you had GDM.

Does having GDM affect my child later in life?

If you had GDM during pregnancy, your child is at risk of developing type 2 diabetes later in life. To help lower your child's risk:

- Monitor your blood sugar now and share your log with your doctor weekly
- Make healthy food choices
- Be physically active

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.