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Gestational Diabetes Nutrition Therapy

- Gestational diabetes (GDM) is a condition that only occurs during pregnancy. GDM leads to blood glucose levels that are above the healthy range.
- Good nutrition is important for a healthy pregnancy and can help manage blood glucose levels during your pregnancy. Over time, high blood glucose levels could hurt you and your baby. Higher blood glucose levels can cause the baby to have a higher risk of:
 - Growing too large and making delivery difficult.
 - Diabetes and obesity in the future as adult.
 - A seriously low blood glucose level after birth
- Eating a healthy diet and gaining the right amount of weight can help manage GDM. Being careful about what kinds of carbohydrate you eat may help control your blood glucose levels so you have a healthy baby.
- You get calories from carbohydrate, protein, and fat in your food. After you eat, your body digests your food, and your blood glucose rises. If your blood glucose goes up too much, it is not healthy. Carbohydrates make your blood glucose levels go up the most. Watching the type and amount of carbohydrate you eat, and when you eat carbohydrate keeps your blood glucose from being too high.
- It's important to still eat some carbohydrates, for a healthy pregnancy and healthy baby.

Foods with Carbohydrate

- Breads, crackers, and cereals
- Pasta, rice, and grains
- Starchy vegetables, such as potatoes, corn, peas, and winter squash
- Beans and legumes
- Milk, some soymilk (check label), and yogurt
- Fruits and fruit juices
- Sweets, such as cakes, cookies, ice cream, jam, and jelly
- Sweet drinks, such as soda, energy drinks, sweet tea and flavored coffee

Foods That Do Not Raise Blood Glucose Levels

These foods contain no carbohydrate or very small amounts carbohydrate:

- Protein foods:
 - Meat (beef, pork, and lamb)
 - Poultry (chicken and turkey)
 - Fish and seafood
 - Eggs
 - Nuts, seeds, and nut butters
 - Cheese and cottage cheese
 - Tofu
- Fats:
 - Oils (olive, peanut, and canola)
 - Butter and margarine
 - Salad dressing and mayonnaise

- Non-starchy vegetables:
 - Asparagus, broccoli, carrots, green beans, leafy greens (kale, lettuce, spinach, swiss chard), onions, peppers, tomatoes, zucchini

Tips

To keep your blood glucose in a healthy range, you will need to carefully plan your meals as well as regularly check your blood glucose levels and change the carbohydrate you eat if necessary. To reach the blood glucose goals your health care provider has set for you, you will need to pay attention to the following:

- How much carbohydrate foods you eat.
- The type of carbohydrates you eat
- When you eat carbohydrate foods throughout the day
- Combining protein and fat with carbohydrate

The Right Amount of Carbohydrate and When to Eat Them

- Eating the right amount of carbohydrate at the right time can keep your blood glucose levels in a healthy range. Your registered dietitian nutritionist (RDN) can help you determine the right amount for you.
 - Eating too much carbohydrate at one meal or in one snack can make blood glucose levels rise too high. This can be harmful to your baby.
 - Eat 3 meals per day and up to 3 snacks per day.
 - Aim to eat meals 3 to 5 hours apart. If you tend to go longer than 4 to 5 hours between meals, make sure to eat a snack about halfway between meals. This helps to keep your blood glucose levels stable and helps you be less hungry.

Estimating Your Carbohydrate Intake

- Carbohydrate counting is a meal planning tool to help you eat the right amount of carbohydrate. Count grams of carbohydrate in a specific food or carbohydrate servings to help you figure out how much carbohydrate is in a food. This will help you plan how much to eat at meals and snacks. Ask your RDN how much carbohydrate you should be eating:
 - Check serving sizes with measuring cups and spoons or a food scale.
 - 15 grams of carbohydrate is a common serving size and is often used as a carbohydrate serving in carbohydrate counting.
 - Read the Nutrition Facts on food labels to find out how many grams of carbohydrate are in foods you eat. Note the serving size on a product label may not be the same as a 15-gram carbohydrate serving.
- Checking your blood glucose level before and after meals as advised by your health care provider or RDN is the only way to know if your blood glucose is in a safe range. Your blood glucose readings can help you know when to change the amount, type, or timing of the carbohydrates you eat. By checking your blood glucose, you may also find that some carbohydrate foods cause your blood glucose to go above the healthy range each time you eat them.

Foods Recommended

Eat a variety of the following whole foods. Choose a healthful balance of foods from each category at your meals.

| Food Group | Foods Recommended |
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| <p>Grains</p> <p>(6 servings per day)</p> | <p>Choose whole grains for at least half of the grain servings you eat, including whole wheat, barley, rye, buckwheat, corn, teff, quinoa, millet, amaranth, brown and wild rice, sorghum, and oats</p> <p>Each of these equal 1 carbohydrate serving or 15 grams of carbohydrate:</p> <ul style="list-style-type: none"> • 1/3 to 1/2 cup cooked grains • 1 slice bread (1 ounce) • 1 tortilla or roti (6-inch size) • 1/4 large bagel (1 ounce) • 1/2 hamburger or hot dog bun (3/4 ounce) • 1/2 cup cooked cereal • 4 to 6 small crackers • 1/3 cup cooked pasta, rice, or quinoa • 3/4 ounce pretzels • 3 cups popcorn (popped) |
| <p>Protein Foods</p> <p>(5 to 6 ounces per day)</p> | <p>Red meat, including lean, trimmed cuts of beef, pork, or lamb</p> <p>Poultry, including chicken or turkey</p> <p>If you choose to eat deli meats or hot dogs, they must be heated until steaming.</p> <p>Seafood, including fish, shrimp, lobster, clams, and scallops. Focus on fatty fish, such as salmon, herring, and sardines, as a rich source of omega-3 fatty acids. During pregnancy, choose fish and seafood that are low in mercury.</p> <p>Eggs</p> <p>Nuts and seeds, such as peanuts, almonds, pistachios, and sunflower seeds. These foods have fat, too. Nut butters and seed butters, such as peanut butter, almond butter, and sunflower seed butter. These foods have fat, too.</p> <p>Soy foods, such as tofu, tempeh, or soy nuts</p> <p>Meat alternatives, such as veggie burgers, and sausages based on plant protein. Check the label, as some of these foods may contain carbohydrate.</p> <p>Legumes, such as dried beans, lentils, or peas. These foods contain carbohydrate, too.</p> <p>Each of these equal 1 carbohydrate serving or 15 grams of carbohydrate as well as protein:</p> <ul style="list-style-type: none"> • 1/2 cup beans, peas, or lentils • 1 cup soybeans |
| <p>Dairy</p> <p>(3 servings per day)</p> | <p>Low-fat or fat-free milk, yogurt/Greek yogurt (low in added sugars), cottage cheese, and cheeses that are pasteurized</p> <p>Frozen desserts made from low-fat milk that are low in added sugars (no more than 5 grams added sugars per serving)</p> <p>Fortified soymilk, rice milk, or nut milk (check the label for carbohydrates)</p> <p>Each of these equal 1 carbohydrate serving or 15 grams of carbohydrate:</p> <ul style="list-style-type: none"> • 1 cup milk • 1 cup plain yogurt or 4 to 6 ounces fruited yogurt (check the label) • 1/2 cup frozen dessert |

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| <p>Vegetables (at least 3-4 servings per day)</p> | <p>A variety of whole vegetables, including dark-green, red and orange vegetables, legumes (beans and peas), and starchy vegetables; vegetable juices</p> <p>Non-starchy vegetables such as carrots, cauliflower, cucumbers, spinach, tomatoes, and green beans contain 5 grams of carbohydrate per serving (1 serving = ½ cup cooked or 1 cup raw vegetables). Eating 3 servings of non-starchy vegetables at a meal equals 1 carbohydrate serving or 15 grams of carbohydrate, but almost never affect blood glucose.</p> <p>Starchy vegetables do have carbohydrate. Each of these equal 1 carbohydrate serving or 15 grams of carbohydrate:</p> <ul style="list-style-type: none"> • ½ cup beans, peas, corn, sweet potatoes, winter squash, or mashed or boiled potatoes (cooked) • ¼ large baked potato (3 ounces) |
| <p>Fruit (2-3 servings per day)</p> | <p>Choose a variety of fresh, frozen, dried, or unsweetened canned fruit packed in water</p> <p>Each of these equal 1 carbohydrate serving or 15 grams of carbohydrate:</p> <ul style="list-style-type: none"> • 1 small fresh fruit (¾ to 1 cup) • ½ cup canned or frozen fruit (without added sugar or syrup) • 2 tablespoons dried fruit (blueberries, cherries, cranberries, mixed fruit, raisins) • 17 small grapes or ½ cup • 1 cup melon or berries |
| <p>Oils and Fats (up to 5 servings per day)</p> | <p>Healthier fat choices: vegetable oils, including olive, peanut, and canola oils</p> <p>Margarines and spreads, that do not have trans fats (partially hydrogenated oil)</p> <p>Salad dressing and mayonnaise</p> |
| <p>Beverages</p> | <p>Unsweetened coffee and tea, water and other zero-calorie drinks.</p> |
| <p>Other</p> | <p>Prepared foods, including soups, casseroles, and mixed dishes</p> <p>Each of these equal 1 carbohydrate serving or 15 grams of carbohydrate:</p> <ul style="list-style-type: none"> • 1 cup broth-based soup (with some grains or starchy vegetables). • ½ cup casserole |

Foods Not Recommended

Do not eat these foods often. There are other foods that you should not eat during pregnancy regardless of whether you have GDM. Ask your RDN for more information or see the Pregnancy Nutrition Therapy handout.

| Food Group | Foods Not Recommended |
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| Grains | <p>Almost any ready-to-eat cereal, especially sweetened, low-fiber breakfast cereals (less than 2 grams of fiber per serving)</p> <p>Packaged baked goods</p> <p>Snack crackers and chips made with refined ingredients (like white flour), cheese crackers, butter crackers</p> <p>Breads made with refined ingredients (like white flour) and added fat, such as biscuits, frozen waffles, naan, sweet breads, doughnuts, pastries, packaged baking mixes, pancakes, cakes, and cookies</p> |
| Protein Foods | <p>Some protein foods such as lunchmeat or deli meat that has not been heated, and seafood with a high mercury content are not recommended during pregnancy. Ask your RDN for more information.</p> |
| Dairy | <p>Some dairy foods such as unpasteurized cheese are not recommended during pregnancy. Ask your RDN for more information.</p> |
| Vegetables | <p>Some vegetables such as sprouts or fried vegetables are not recommended during pregnancy. Ask your RDN for more information.</p> |
| Fruit | <p>Fruits packed in syrup or made with added sugar</p> <p>Any juice</p> |
| Oils and Fats | <p>Some fats and oils such as solid margarines are not recommended during pregnancy. Ask your RDN for more information</p> |
| Beverages | <p>Sweetened drinks, including sweetened coffee or tea drinks, soda, energy drinks, and sports drinks.</p> |
| Other | <p>Desserts with added sugar and fat, candy, and other sweets; salt and seasonings that contain salt</p> <p>Fried foods</p> |

Gestational Diabetes Sample 1-Day Menu

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| Breakfast | <ul style="list-style-type: none"> 1 slice whole wheat toast (1 carbohydrate serving) 1 egg 1 cup fat-free milk (1 carbohydrate serving) |
| Morning Snack | <ul style="list-style-type: none"> ¼ cup almonds 1 small apple (1 carbohydrate serving) |
| Lunch | <ul style="list-style-type: none"> 1 slice whole wheat bread (1 carbohydrate serving) 2 ounces lean deli chicken (heated until steaming) 1 ounce low-fat cheese 1 tablespoon of mayonnaise 2 leaves lettuce 2 tomato slices 5 carrot sticks 5 celery sticks 1 cup vegetable soup with beans (2 carbohydrate servings) 1 cup strawberries (1 carbohydrate serving) |
| Afternoon Snack | <ul style="list-style-type: none"> ½ whole wheat pita (1 carbohydrate serving) 3 tablespoons hummus (½ carbohydrate serving) ½ cup cucumbers ½ cup tomatoes |
| Evening Meal | <ul style="list-style-type: none"> 3 ounces skinless chicken breast 2/3 cup cooked brown rice (2 carbohydrate servings) ¾ cup cooked broccoli 1 cup green salad ¼ cup avocado 2 tablespoons salad dressing 6 ounces Greek yogurt, fruited (1 carbohydrate serving) |
| Evening Snack | <ul style="list-style-type: none"> 5 whole grain crackers (1 carbohydrate serving) 1½ ounces cheddar cheese |

Gestational Diabetes Vegetarian (Lacto-Ovo) Sample 1-Day Menu

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| Breakfast | <ul style="list-style-type: none"> ½ cup cooked oatmeal (1 carbohydrate serving) ¼ cup walnuts 1 egg 1 cup fat-free milk (1 carbohydrate serving) |
| Morning Snack | <ul style="list-style-type: none"> 1 cup plain fat-free yogurt (1 carbohydrate serving) 1 orange (1 carbohydrate serving) |
| Lunch | <ul style="list-style-type: none"> 1 slice whole wheat bread (1 carbohydrate serving) 1 tablespoon peanut butter ½ cup three bean salad (1 carbohydrate serving) made with: 2 tablespoons chickpeas 2 tablespoons green beans 2 tablespoons kidney beans 1 tablespoon low-fat Italian dressing 1 extra-small banana (1 carbohydrate serving) 3 carrot sticks 3 celery sticks 1 cup fat-free milk (1 carbohydrate serving) |
| Afternoon Snack | <ul style="list-style-type: none"> 1 small pear (1½ carbohydrate servings) ½ cup sliced cucumbers ¼ cup almonds |
| Evening Meal | <ul style="list-style-type: none"> Rice bowl made with: 1 cup black beans (2 carbohydrate servings) 2/3 cup brown rice (2 carbohydrate servings) 1 tablespoon low-fat sour cream 1 cup cooked spinach 5 olives ½ tablespoon olive oil for cooking |
| Evening Snack | <ul style="list-style-type: none"> 6 whole grain crackers (1 carbohydrate serving) 2 tablespoons hummus ½ cup tomatoes |

Gestational Diabetes Vegan Sample 1-Day Menu

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| Breakfast | 1 cup cooked oatmeal (2 carbohydrate servings) ¼ cup walnuts 1 cup soymilk fortified with calcium, vitamin B12, and vitamin D |
| Morning Snack | 17 small grapes (1 carbohydrate serving) 3 carrot sticks 3 celery sticks 1 tablespoon peanut butter |
| Lunch | 1 veggie burger (½ carbohydrate serving) 1 cup three bean salad (2 carbohydrate servings) made with: 1/3 cup green beans 1/3 cup kidney beans 1/3 cup chickpeas 1 tablespoon low-fat Italian dressing 1 extra-small banana (1 carbohydrate serving) 1 cup soymilk fortified with calcium, vitamin B12, and vitamin D |
| Afternoon Snack | 1 small pear (1½ carbohydrate serving) ½ cup sliced cucumbers ¼ cup almonds |
| Evening Meal | Tofu rice bowl made with: ¾ cup tofu baked with 1 teaspoon reduced-sodium soy sauce 1 tablespoon sesame seeds 2 tablespoons cashews 1 cup brown rice (3 carbohydrate servings) 1 cup cooked broccoli ½ tablespoon vegetable oil for cooking or salad 1 tablespoon rice vinegar for tofu rice bowl or salad Small dinner salad made: with ½ cup shredded carrots ½ cup shredded cabbage 1 cup strawberries (1 carbohydrate serving) 1 cup soymilk fortified with calcium, vitamin B12, and vitamin D |
| Evening Snack | 6 whole grain crackers (1 carbohydrate serving) 2 tablespoons hummus ½ cup tomatoes |

Notes