

Screening Tests for Gestational Diabetes

50 Gram glucose challenge test

If you choose to be screened for gestational diabetes, you may have one of several different tests. The most commonly used screening test involves drinking 50 grams of glucose in the form of a sweet drink called “glucola”, followed by having your blood drawn and tested for glucose exactly one hour later. The main advantages of this test are that it can be done at any time during the day or evening and that you do not need to fast for 12 hours before the test.

Instructions for the 50-gram glucose challenge test:

1. Don't eat/drink sweets the day of the test including fruit juice. If possible, don't eat right before the test.
2. Drink the 50-gram glucose beverage. It's easier to drink if it is chilled first. Drink it all down within 5 minutes. Record the time you finish it.
3. Don't eat or drink anything afterward except plain water. Do not exercise or go for a walk.
4. Please arrive at my office 45 minutes after you have finished the drink. Make to let me know you have arrived if I am with another client. We want to draw your blood 1 hour after you have finished the beverage.
5. A positive result is a value of ≥ 140 mg/dl.

You may make your own 50-gram “glucola” drink by combining 2 T lemon juice and $\frac{1}{4}$ c white sugar (no substitutes) in 1 cup of water. Follow the same instructions as above.

Breakfast Tolerance Test

Another method of screening is called the “breakfast tolerance test”. It is done in the morning after you have fasted overnight for at least 12 hours. This test involves eating a very specific breakfast that contains about 600 calories (52 grams of carbohydrates, 28 grams of protein, 31 grams of fat). You must eat it quickly and note the time you finish. One hour after you finish, you test your blood using the glucometer.

If you want to use the breakfast tolerance test method, pick one of these recommended breakfast menus.

MENU 1

2 eggs, no extra oil can be used (boiled or poached)
 2 slices of white toast or 1 English muffin
 2 pats of butter or margarine
 8 oz orange juice
 8 oz low fat milk (1%)
 1 c coffee or tea without sugar (optional)

MENU 2

1 c cooked oatmeal (cooked in water)
 2 slices of white toast or 1 English muffin
 3 pats of butter or margarine
 8 oz orange juice
 1 cup unsweetened soy milk or 1c 1% milk
 2 T almonds
 1 c coffee or tea, without sugar (optional)

Instructions:

1. Don't eat for 12 hours (overnight).
2. First thing before you eat anything, test your blood. Record the number.
3. Select a breakfast, eat the whole amount in a short time, and note the time you finish.
4. Don't eat or drink anything except plain water. Don't exercise or go for a walk.
5. One hour after you started the meal, test your blood and record the number.
6. Do the same thing an hour later.
7. A positive result is a value ≥ 140 at 1 hour or 120 at 2 hours post-meal.

Follow-up if your 50-gram or Breakfast Tolerance Test numbers aren't ideal :

If the blood glucose numbers we get from the initial testing aren't as low as they should be, the next step is to take a glucometer home with you for a week. During this time, you will be eating normally and recording your fasting number each day, what you eat, then testing afterward randomly to see what your numbers are after normal eating. I recommend that you test 1 hour after some meals, and 2 hours after others. If you have a sugary food, check 1 hour after this as well. Then bring your chart back with you after a week so we can interpret it. If ANY number is greater than 200, call me immediately.

Date	Time	Fasting	Foods eaten – include quantities	1 hr	2 hr

Follow-up testing with a Glucose Tolerance Test (GTT)

You will be offered a glucose tolerance test if your home glucose screening test comes back with an elevated level of blood glucose. This test involves ingesting 100 grams of glucose after fasting 12 hours overnight. This test is considered diagnostic for gestational diabetes and will help to determine if dietary and lifestyle changes are needed to help you maintain healthier glucose levels for you and your baby.

Instructions for the GTT

1. After 3 days of unrestricted diet and activity, fast overnight for 12 hours.
2. The following morning, arrive at the office early to have your blood drawn before you eat or drink anything except plain water. Do not exercise on the morning of your test.
3. Drink a 100 gram glucose drink. Finish the drink within 5 minutes and note the time you finish it.
4. Don't eat or drink anything afterward except plain water. Do not exercise or go for a walk.
5. After one, two and three hours, your blood will be drawn. You may leave the building to go a short distance away if you desire, but you must be back in time for each blood draw and you shouldn't be doing a lot of walking while you are gone. It maybe easiest to just bring a book and read, or take a nap.
6. A positive results is 2 or more of the following values:
 - a. Fasting: ≥ 105 mg/dl
 - b. 1 hour: ≥ 195 mg/dl
 - c. 2 hour: ≥ 165 mg/dl
 - d. 3 hour: ≥ 145 mg/dl

If you have a positive result on the GTT, I may refer you back to your doctor, or a doctor I recommend, for evaluation and dietary counseling, or I may guide you in making dietary and lifestyle changes in order to decrease your blood glucose levels. It is very important to maintain normal levels of glucose in your blood for both you and your baby's well-being.

Home Monitoring:

Home monitoring of your blood glucose levels may assist you in making dietary modifications, helping you maintain appropriate glucose levels in your blood. This involves use of a home glucometer.

1. Follow recommended dietary modifications, increase exercise as prescribed, and make any other appropriate lifestyle changes as discussed.
2. Use a home glucometer to measure capillary blood values. Follow instructions on the device.
3. Test 4 samples per day, as follows, and record on the attached chart:
 - a. 1st sample is tested first thing in the morning before eating or drinking anything except water.
 - b. 2nd sample is drawn 2 hrs after breakfast, before eating a morning snack.
 - c. 3rd sample is drawn 2 hrs after lunch, before eating an afternoon snack.
 - d. 4th sample is drawn 2 hours after dinner, before eating a bedtime snack.
4. Call me if any of your values are greater than the range specified on the chart, and always bring your chart with you to your prenatal appts.

Glycemic Control in Pregnancy

If you have a positive result on the Glucose Tolerance Test, I will guide you in making dietary and lifestyle modification in order to decrease your blood glucose levels. It is very important to maintain normal levels of glucose in your blood for both you and your baby's well-being. What follows are some general guidelines to help you maintain normal blood glucose levels.

Dietary Modification: The following recommendations can help you get off to a good start.

1. Eliminate all refined sugars from your diet, including sweetened drinks, maple syrup, fructose, honey, agave nectar.
2. Become familiar with the Glycemic Index.
3. Decrease fruit intake: no fruit juice, processed fruit or dried fruit. Only occasional fresh fruit.
4. Focus on eating whole grains. Eliminate simple starchy carbohydrates such as bread, rice, pasta, white potatoes, and all products made from white flour, such as crackers, bagels, buns, tortillas. Only 2 servings of whole grain starches per day are recommended, such as 100% whole grain bread or tortillas, brown rice (1/2 c only), whole grain pasta (1 cup only). You may have 1 medium-size white potato per week, but only if you eat the skin with it. No fried potatoes.
5. Decrease fats in your diet. Fat lowers the body's ability to move sugars out of the blood stream.
6. Increase protein in your diet. Try to have a low-fat protein with each meal and snack.
7. Increase legumes in your diet to 4x per week. These include lentils, pinto/black/kidney beans, etc. These foods help to moderate your metabolism of sugars.
8. Take a GTF Chromium supplement, 50 mcg, twice per day, with breakfast and dinner.

Exercise: Exercise increases your metabolism, especially upper-body exercise. Engage in 30 minutes of moderate aerobic exercise/exertion per day. Swimming or brisk walks while swinging your arms are excellent low-impact aerobic forms of exercise.

Home Monitoring: Monitoring of your blood glucose levels will assist you in making dietary modifications by making you aware of how the foods you eat affect your glucose levels. Some insurance plans will cover the cost of a home glucometer and test strips, so you should inquire about this. Otherwise, I will assist you in obtaining a good monitor for your home use.

Monitor urine for ketones: When you rise in the morning, collect your urine and test it for ketones using test strips. Call me if you find ketones in your urine.

Follow-up testing: Some or all of the following tests may be recommended: Ultrasound scan, Hemoglobin A1C blood test, Home monitoring/lab correlation test.

As always, if you have questions, call me!

