



Information for Women with Gestational Diabetes

What is gestational diabetes?

How is gestational diabetes found?

How is gestational diabetes treated?

What can happen to me and my baby if my blood sugar levels aren't under control?



What is Gestational Diabetes?

Gestational Diabetes (also known as GDM) is a type of diabetes that develops during pregnancy. Gestational means "in pregnancy". Diabetes means having more sugar (glucose) in your blood than your body needs or uses. For most women, it begins during the second trimester. About 7% to 14% of all pregnant women develop gestational diabetes. This number is higher among certain ethnic groups such as African American, Asian American, East Indian, Latina/Hispanic and Native American.

The difference between this type of diabetes and the type that exists before pregnancy is that gestational diabetes is not likely to cause birth defects.

If you have gestational diabetes, your blood sugar is elevated because of the foods that you eat and pregnancy hormones. Normally, the body changes food into glucose. Insulin, which is a hormone that the body produces, helps to turn glucose into energy. With diabetes, either the body does not make enough insulin or it is not able to use insulin appropriately. As a result, the blood sugar goes up too high.

How is Gestational Diabetes found?

All pregnant women should be tested for GDM. This test is called a glucose challenge test. If the woman is at high risk for developing GDM, she should be tested during her first prenatal visit. Otherwise the screening test should be done around 24-28 weeks of pregnancy. There are no special preparations and you can even eat before this test is done.

You will be given a cold sweet drink. Then, in one hour, blood will be drawn from your arm. A test result of 130 or less is normal. This means you do not have gestational diabetes. If your test result is greater than 130, your screening test is positive. You might have GDM. You will need another type of test. This test is called a 3-hour glucose tolerance test or OGTT (oral glucose tolerance test).

How is gestational diabetes treated?

The treatment for gestational diabetes includes:

- ❖ choosing the right foods to eat
- ❖ gaining weight slowly
- ❖ exercising safely and regularly
- ❖ keeping your blood sugar levels normal
- ❖ testing and recording your blood sugar levels

A registered dietitian (RD) will help you create a meal plan that provides good nutrition and helps you control your blood sugar. The majority (80%) of women with gestational diabetes can control their blood sugar by diet alone. However, some need to take oral medication or inject insulin in order to keep their blood sugar within normal limits. It is important that you go to all of your doctor's visits. This is where you can ask questions and learn about GDM.

What can happen to me and my baby if my blood sugar levels aren't under control?

Blood sugar is used for energy by the body. Your body will only use what it needs. The blood sugar you do not use goes to your baby. If your baby gets too much sugar from you, the baby stores it as fat. This is why many women with gestational diabetes have very large babies. These babies are at risk for having a rapid drop in their blood sugar after birth. This is not healthy and these babies may need to go to a special care area.

Besides being hard to carry, large babies are more difficult to deliver. Sometimes there are birth injuries to both mom and baby. The baby's arm or shoulder could be broken during delivery. Nerve damage to the face and arms can also happen. If your baby is very large, you can have vaginal (birth canal) injuries. To avoid birth injuries, some women will need a cesarean section (sometimes called a c-section). A cesarean section means the baby is delivered by surgery.



Careful control of your blood sugar and weight gain during pregnancy can help you avoid the following complications for yourself:

- ❖ difficult delivery
- ❖ high blood pressure
- ❖ cesarean section (surgical delivery)

and for the baby:

- ❖ macrosomia (babies weighing more than 9 lb at birth)
- ❖ newborn hypoglycemia
- ❖ birth injury to the arm or shoulder
- ❖ jaundice
- ❖ respiratory problems
- ❖ premature birth (birth before 36 weeks)
- ❖ stillbirth (baby dies before birth), if blood sugars are frequently elevated

Managing Gestational Diabetes with Lifestyle Modifications

The skills needed to manage gestational diabetes include healthy eating/meal planning, exercise and checking your blood sugar. One of the first steps in treating gestational diabetes is to modify your diet to help keep your blood sugar level in a normal range.

Carbohydrates: Is the nutrient in your food that raises blood sugar. You must have some carbohydrate in your diet for normal baby development. The food groups that contain carbohydrate include: starch, grains, fruit, milk, and of course sugar. Protein and fat do not significantly raise blood sugar and can be eaten as desired.

- Adding protein to carbs in meals and snacks may help to stabilize your blood sugar rise.
- Non-starchy vegetables: Do not raise your blood sugar as they are low in
- Carbohydrates and high in fiber. They can be eaten as desired.

Avoid simple sugars and sweets such as: White and brown sugar, honey, syrup, cookies, cakes, pies, donuts, chocolate, regular ice cream, regular soda, fruit juices, fructose/corn syrups, flavored coffee creamers, and candy. Also avoid fold cereal and instant noodles/soups. Avoid sweet sauces such as ketchup, BBQ sauce, teriyaki sauce, Vietnamese fish sauce, hoi sin sauce or oyster sauce.

Eat 3 meals and 3 snacks The American Diabetes Association (ADA) recommends 175 carbohydrate grams daily in 3 small meals and 3 snacks (a meal or snack every 2- 3 hours).

Recommended servings of carbohydrate at each meal and snack					
Breakfast	Snack	Lunch	Snack	Dinner	Snack
30 grams	15 grams	45 grams	15 gras	45 grams	15 grams

Milk and fruit are simple sugars can raise blood sugars quickly, especially first thing in the morning. Avoid milk and fruit at bedtime and at breakfast.

Use of artificial sweeteners such as Splenda or Equal instead of sugar. Sugar alcohols such as maltitol, sorbitol, and xylitol may have some impact on blood sugars and can cause stomach upset.

Dessert type foods made with artificial sweeteners can be consumed in moderation. Examples include: ½ cup Dreyers No Sugar added ice cream, no sugar added Nestle Crunch ice cream bars, or Fudgesicle no sugar added fudge pops.

Weight gain goals (depends on pre-pregnancy weight)

Most women should gain approximately ½ - 1 lb per week during the 2nd and 3rd trimesters. Recommendations for total weight gain for pregnancy are:

- Normal weight (BMI, 18.5–24.9): 25 – 35 lbs.
- Over weight (BMI, 25–29.9): 15 – 25 lbs.
- Obese (BMI, 30 or more): 11–20 lbs.

Monitoring Glucose: You will be monitoring blood sugar 4 times/day. Fasting and 2 hours after every meal. Fasting blood sugar should be taken within 15 minutes of waking. There should not be more than 10 hours from your bedtime snack to your breakfast.

Blood glucose goals

- Fasting: Less than 95 mg/dl
- 2 hours after first bite of meal: Less than 120 mg/dl

Exercise:

Because exercise will lower your blood sugar, we recommend a 15 – 20-minute walk after all meals, if possible.

Keep a dietary diary:

Write down everything you eat including the time you finish eating and the quantity eaten. Bring this record and blood glucose log to every visit.

Taking medication:

It is important that if you are taking insulin or oral medications that you take them as directed. Maintaining carbohydrate consistency at meals or snacks is important. If you miss a dose or take medication late it may affect your glucose for the rest of the day. Please contact our office if you have any concerns about your prescription.

Health coping:

There are many challenges in a pregnancy with gestational diabetes and you may feel stressed, overwhelmed or saddened by managing your diabetes. It is important to find healthy ways to cope. Whether it is going to a support group, thinking positively, participating in faith-based activities, being active or pursuing hobbies, healthy coping will allow you to proceed through the hurdles of diabetes with success. Please let your diabetes educator or OB know if you feel you need help coping with your diabetes.

Test your glucose levels safely!

Glucometers may be different in how they are used. Below are some tips on how to use your glucometer safely!

Check your Equipment Before you Test:

- Be sure and change your lancet frequently, at least once daily to avoid pain with testing.
- Check that your strips have not expired.
- Keep your glucometer and testing supplies at room temperature.
- Glucose test strips should be stored in the metal canister.

Follow these simple tips for safe testing:

- Wash your hands with warm water & soap. Do NOT use alcohol or hand cleansers.
- Massage your finger before lancing; apply gentle pressure for a good sample.
- Prick on the either side of your fingertip, near your fingernail to avoid pain in your finger pad.
- Gently massage or squeeze your finger until a drop of blood forms.
- Your blood sugar will result on the glucometer's display screen.
- In pregnancy, alternate site testing is NOT recommended.

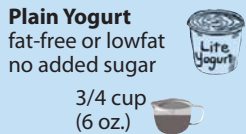
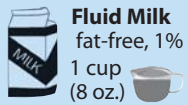
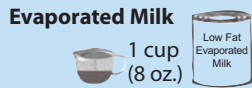
REMEMBER: Do NOT let others use your equipment or test others blood sugars.

Dispose of used lancets in a rigid, puncture resistant, leak proof container. A full container should be sealed with duct tape and placed in solid waste receptacle. If you do not live in the metro Phoenix area, please check your local city's water management department for disposal guidelines.



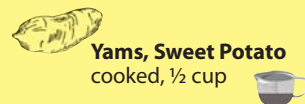
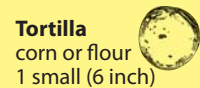
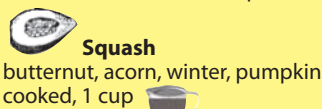
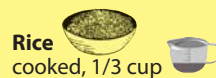
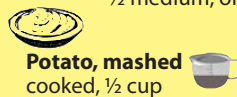
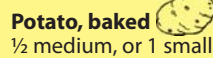
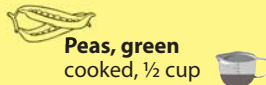
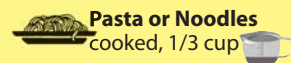
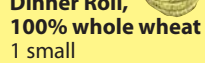
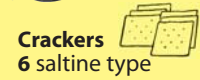
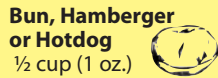
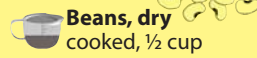
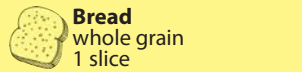
MILK

One Serving = 15g total carbohydrates.
Read the label.



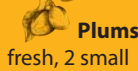
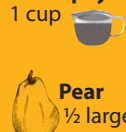
STARCH

One Serving = 15g total carbohydrates.
Read the label.



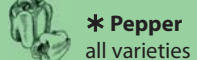
FRUITS

One serving = 15g total carbohydrates.



VEGETABLES

One Serving = 5g total carbohydrates.
Read the label.



▲ Indicates foods high in vitamin A - * Indicates foods high in vitamin C
◆ Indicates foods high in folic acid

Protein

Some processed protein products may contain carbohydrates.
Read the label

- Beef**
roast, steak, or ground
1 oz.
- Cheese, hard**
swiss, jack, cheddar,
mozzarella, or american
1 oz.
- Cheese, soft**
cottage or ricotta,
1/4 cup
- Chicken or Turkey**
1 oz.
- Eggs**
whole, 1
whites, 2
- † Fish**
snapper, sole, salmon
1 oz.
- Ham**
boiled or canadian
1 oz.
- Lamb**
1 oz.
- Oysters**
6 medium
- Peanut Butter**
natural
1 tablespoon
- Pork Chop**
thin, 1 oz.
- Sardines**
2 medium
- Shellfish**
crab, clams, lobster,
or shrimp
1 oz.
- Tofu**
soybean curd
½ cup
- Tuna, Chicken or Turkey**
canned in water
1/4 cup

† Do not eat Shark, swordfish, king mackerel, or tilefish because they contain high levels of mercury. Eat up to 12 ounces a week of a variety of fish and shellfish that are lower in mercury.

FATS

Some fat-free products may contain carbohydrates.
Read the label.

Vegetable Fats (unsaturated)

- ✓ **Avocado**
2 tablespoons
- **Mayonnaise**
reduced fat, 1 tablespoon
regular, 1 teaspoon
- Margarine**
reduced fat, 1 tablespoon
regular, 1 teaspoon
- Nuts**
✓ almonds, 6 whole
✓ peanuts, 10 whole
✓ pecans, 2 whole
■ walnuts, 2 whole
- ✓ **Olives**
black, 8 large
green, 10 large
- Salad Dressing**
reduced fat, 2 tablespoons
regular, 1 tablespoon
- Vegetable oils**
canola, olive, peanut
corn, safflower, sunflower

Animal Fats (saturated)

- Bacon**
1 slice
- Butter**
1 teaspoon
- Cream**
2 tablespoon
- Cream Cheese**
reduced fat, 1 ½ tablespoons
regular, 1 tablespoon
- Sour Cream**
reduced fat, 3 tablespoons
regular, 2 tablespoons

✓ Monounsaturated
■ Polyunsaturated

FREE FOODS

One serving = less than 20 calories & less than 5g total carbohydrates.

- **Bouillon Broth**
- Cilantro Parsley**
- Decaf Coffee and Tea**
- **Dill Pickle**
- Drink Mix**
sugar free
- Garlic**
- ◆ **Gelatin**
sugar free
- Herbs**
dill, basil, cumin,
chives, oregano, etc.
- ◆ **Diet Soda**
- Lemon**
- Lettuce**
- Mushroom**
- **Mustard**
- Radish**
- Salsa**
tomato, chile ¼ cup
- **Soy Sauce**
- Vinegar**
unsweetened
- Water**

◆ Discuss the use of artificial sweeteners with your dietitian, if you eat any of these foods in large quantities.
• These foods are high in sodium and may not be advised for some people.

SWEETS, DESSERTS & OTHER CARBOHYDRATES

Do not eat these foods unless you have talked to your dietitian.
Read the label.

- All Fruit Juice**
- Bagel**
- Baked Beans**
- Candy**
- Canned Fruit**
in syrup or juice
- Cake, Cookies, or Pie**
- Coffee Creamer**
- Drink Mix**
- Flavored Milk**
- Honey**
- Ice Cream**
Frozen Yogurt
- Instant Hot or Cold Cereal**
- Jam or Jelly**
- Muffin or Donut**
- Pudding**
Custard
- Soft Drink**
juice drinks
- Sugar**
- Syrup**
corn, maple, molasses
- Pasta or Pizza Sauce**
white or red
- Teriyaki Sauce**
Barbeque Sauce
Ketchup

How to Read Food Labels

Nutrition Facts	
4 servings per container	
Serving size	1/2 cup (114g)
Amount per serving	
Calories	90
% Daily Value*	
Total Fat: 3g	5%
Saturated Fat: 0g	0%
Cholesterol 0mg	0%
Sodium 300mg	13%
Total Carbohydrate 13g	4%
Dietary Fiber 3g	12%
Sugars 3g	
Protein 3g	
Vitamin A	80%
Vitamin C	60%
Calcium	4%
Iron	4%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.	

Eat what you love, and love what you eat with Gestational Diabetes!



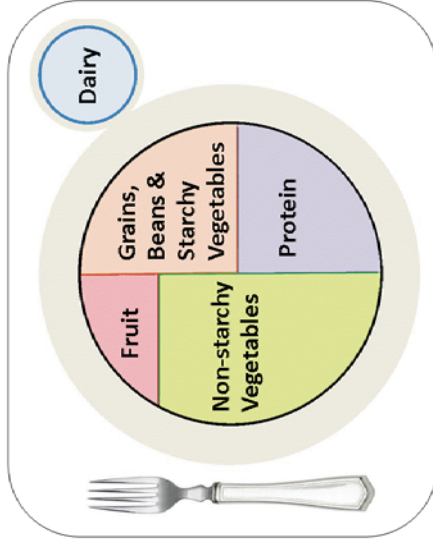
Menu with 15g carb snacks

Meal	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday (Vegetarian)	Sunday
Breakfast 30g carb	1/4 cup dry steel-cut oatmeal cooked with water (29 g) 1/4 cup almonds	1 Thomas' Multigrain English muffin (26g), Turkey sausage, and an egg	2 corn tortillas (30g) Scrambled eggs with nonstarchy vegetables and cheese	1/4 cup dry steel-cut oatmeal cooked with water (29 g) Eggs	2 slices 100% whole wheat bread (30g) hard boiled eggs	1 egg dosa (29g) without potato [1/2 c. dosa batter, egg, onion, salt, cilantro, vegetable oil]	2 slices 100% whole wheat bread (30g) topped with 1/2 sliced avocado and eggs
Snack 15g carb	1/2 banana (15g) with 2 Tbsp peanut butter	Greek yogurt Fage 2% split cup (13g) Dannon Oikos w/ fruit (13g) Chobani "hint of flavor" (11g)	15-Special K Multigrain crackers (15g) with cheese	1 1/4 c. watermelon (15g) String cheese	6 - Carr's Table Water Crackers (15g) with peanut butter	Greek Yogurt Fage 2% Plain (8g) /or/ Fage 0% Plain (7g) /or/ Dannon Oikos Plain (6g) /or/ Chobani Non Fat Plain (6g) 1/3 c. blueberries (7g)	1 Nectarine (15g) 1/4 c. walnuts
Lunch 45g carb	1 sandwich with 100% whole wheat bread (30g). shredded grilled chicken or turkey breast, cheese, lettuce & tomato 17 small grapes (15g)	3 quesadillas made with 3 corn tortillas (90g) and cheese Steamed broccoli	Grilled chicken breast in a large salad: spring mix or lettuce, tomatoes, carrots, red onion, bell peppers, cucumbers, mushrooms, shredded cheese 1 medium slice of French bread [4" x 2-1/2" x 1-3/4"] (45g)	Steak Fajitas made with 3 corn tortillas (45g) sour cream, avocado, salsa, green peppers & onions	2 shredded beef tacos in corn tortillas (30g) with 1/2 cup refried beans (15g) 2 Tbsp guacamole, tomato salsa, and shredded lettuce	Hamburger or vegetarian soy burger on small wheat bun (30g) with lettuce & tomato NO ketchup (salsa is ok) Large spinach salad: spinach leaves, almond silvers, red onion, 1/8 c. dried cranberries (12g), feta cheese, 1 Tbsp Great Value Raspberry vinaigrette (3g)	5-6" oven roasted chicken sub sandwich made with 9-grain wheat bread (40g), lettuce, tomatoes, cucumbers, vinegar & oil, pepper Side salad: iceberg lettuce, carrot shavings, and cherry tomatoes
Snack 15g carb	10 Wheat Thin crackers (15g) 2 Tbsp. peanut butter	1 small apple (15g) 2 Tbsp peanut butter	1/2 c. mango (15g) 18 cashews	1 1/4 c. strawberries (15g) 1 baby bell cheese	Small orange (15g CHO) 1 ounce almonds	1 1/2 c. Fairlife milk (15g) or 1 c. 1% milk (15g)*WIC Cucumbers and carrots	1 small apple (15 g) 35 peanuts
Dinner 45g carb	2 c. cooked spaghetti squash (30g) with 1/2 c. Cucina Antica tomato basil pasta sauce (6g) Shrimp or tofu sautéed in olive oil 1 pack Dole strawberry dippers (9g)	Baked chicken breast 1 cup brown rice (45g) Salad: Spinach, tomato, red onion with vinaigrette dressing	3 oz steak 2/3 c. brown rice (30g) broccoli and cauliflower	Grilled pork loin 1 small tortilla (15g) 1/2 cup pinto beans (15g) 1/3 cup rice (15g) Zucchini	Grilled chicken breast medium baked potato (30g) with sour cream & cheese Salad: lettuce, tomatoes, carrots, red onion, bell peppers, cucumbers, mushrooms, shredded cheese, 1/4 c. croutons (15g)	1/2 c. Palak paneer 2/3 c. rice (30g) 1 6" chapati (15g)	Steak Fajitas made with 3 corn tortillas (45g) sour cream, avocado, salsa, green peppers & onions Salad: romaine lettuce, tomatoes, jicama, radish, avocado, bell peppers
Snack 15g carb	1 6-inch whole grain flour or corn tortilla (15g) with cheese	1 slice 100% whole wheat toast (15g) with boiled egg	7 Ritz crackers (15g) with peanut butter	21 Annie's Cheddar Squares (15g) 1/4 cup Cashews	1 slice of 100% whole wheat bread (15g) with peanut butter	Carrots & celery with 1/2 cup hummus (15g)	2 Rice Cakes (14g) with peanut butter <u>or</u> cheese

• Check food labels to count the TOTAL carbohydrates in your meal.

• Include foods with protein at every meal and snack. **Examples of protein foods are: meat, chicken, turkey, fish, cheese, cottage cheese, eggs and tofu.**

• Non-starchy vegetables have only a small amount of carbohydrate and can be added as you wish. **Examples of non-starchy vegetables are: lettuce, cucumbers, broccoli and tomato.**



MyPlate for Gestational Diabetes

When you are pregnant and have diabetes, you have special nutrition needs. Use *MyPlate for Gestational Diabetes* to help you manage your blood sugar. This will help keep you and your baby healthy. Every day, eat the number of servings/choices of food shown below. Talk to a registered dietitian (RD) to develop a meal and exercise plan that will meet your needs.

Limit Your Carbohydrates. When you have gestational diabetes, the type and amount of carbohydrates matter. Vegetables, Grains, Fruits, and Milk contain carbohydrates. Some have more and some have less. Eating too many or the wrong type of carbohydrate may raise your blood sugar. Avoid foods with added sugar or white flour, such as cookies, candy and soda.

Vegetables

Eat non-starchy vegetables.

Use fresh, frozen or low-sodium canned vegetables.

For diabetes, starchy vegetables like potatoes, sweet potatoes, yams, peas, corn & winter squash count as a Grain, not a Vegetable.

Daily Amount

- 6 or more of these choices:
- 2 cups raw leafy vegetables
- 1 cup raw vegetables
- 1/2 cup cooked vegetables



5 grams (g) carbohydrate per serving

Protein

Choose lean protein.

Avoid bacon, hot dogs & bologna.

Daily Amount

- 6 or more of these choices:
- 1 ounce fish, poultry, lean meat, or cheese
- 1/4 cup cottage cheese
- 1 egg
- 1 ounce nuts
- 1/2 cup tofu
- 2 Tablespoons nut butter



0 g carbohydrate per serving

Grains

For diabetes, beans & starchy vegetables count as Grains.

Eat 100% whole grains. Avoid cold breakfast cereals. Avoid instant rice, noodles & potatoes.

Daily Amount

- 7 of these choices:
- 1 slice whole wheat bread
- 1/2 cup potato or yam
- 1 small whole grain tortilla
- 1/2 cup cooked dried beans, non-instant cereal, corn or peas
- 1/3 cup cooked pasta, rice



15 g carbohydrate per serving

Fruits

Eat unsweetened fruits of all colors.

Do not drink fruit juice. Avoid fruit at breakfast. Limit dried fruit to 1/4 cup a day.

Daily Amount

- 2 of these choices:
- 1 small apple
- 17 small grapes
- 1 cup papaya
- 1/2 banana



15 g carbohydrate per serving

Milk

Choose only pasteurized plain milk or yogurt.

For diabetes, cheese is in the protein group. Do not eat yogurt or drink milk at breakfast.

Daily Amount

- 3 of these choices for women or
- 4 of these choices for teens:
- 1 cup 1% or fat free milk
- 1 cup soy milk with calcium
- 3/4 cup of plain yogurt



15 g carbohydrate per serving

Fats & Oils

- Use healthy plant oils like canola, safflower & olive oil for cooking.
- Read labels to avoid saturated & trans fats (hydrogenated fats).
- Avoid solid fats such as lard, shortening & butter.

- Fish has healthy fats. Eat cooked fish at two meals each week.
- Limit oils to 6 teaspoons each day.

0 g carbohydrate per serving

My Nutrition Plan for Gestational Diabetes

EVERY day, I will:

- ☐ Eat 3 meals and 3 snacks, 2 to 3 hours apart.
- ☐ Eat my bedtime snack so that no more than 10 hours pass before I eat breakfast the next day.
- ☐ Drink plenty of fluids. I will choose caffeine-free, sugar-free beverages.
- ☐ I will limit coffee to 2 cups daily & not drink alcohol.
- ☐ Limit artificial sweeteners to 1 - 2 servings a day.
- ☐ Try to walk for 10 - 15 minutes after each meal, especially breakfast.

Include protein and carbohydrates at each meal and snack.

Eat at least 175 grams (g) of carbohydrates a day. For the amount of carbohydrates in one serving of food, see below:

◆ **Non-starchy Vegetables** = 5g ◆ **Protein** = 0g ◆ **Grains, Beans and Starchy Vegetables** = 15g ◆ **Fruit** = 15g ◆ **Milk** = 15g

As a sample, meals may look like this:

Breakfast

Eat 15g carbohydrates from the Grains group

Include:

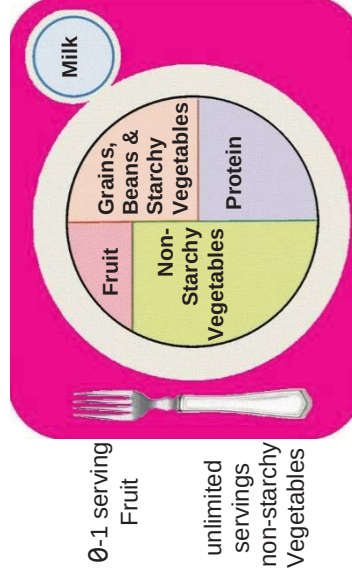
- ◆ 1-2 servings Protein
- ◆ unlimited servings of non-starchy Vegetables

Do not eat Fruit, yogurt or drink milk.

Example of a breakfast:

One egg omelet with cheese & vegetables and one slice toast

Lunch and Dinner



Eat 45g carbohydrates, not including non-starchy vegetables

- ◆ Choose only one serving fruit, milk or yogurt at lunch and at dinner

Snacks

Eat 15g-30g carbohydrates from Fruit, Grains, or Milk group

Include:

- ◆ At least 1 serving Protein with every snack
- ◆ unlimited servings of non-starchy Vegetables

Examples of snacks:

- ◆ 1 small tortilla + 1 ounce cheese
- ◆ 2 rice cakes + celery + 2 tablespoons nut butter
- ◆ 1/2 banana + 24 almonds

Use your favorite calorie counting app for serving sizes and the total number of servings from each group you need every day.

Please bring and present your log to every office visit