

DIABETES AND DIET: *CARBOHYDRATES*

WHAT ARE CARBOHYDRATES?

Carbohydrates, or carbs, can come in many forms, but the three main types are starch, sugar, and fiber. On nutrition labels on packaged foods, the term “total carbohydrate” refers to all three of these types. Carbohydrate foods should make up just one quarter of your plate. Examples and descriptions of each of the three main types are below:

STARCH

- » Vegetables like corn, winter squash, and all kinds of potatoes.
- » Grains like cereals, rice, and pasta.
- » Beans and lentils contain some starch (but also fiber).

SUGAR

- » Naturally-occurring sugars are found in milk or fruit.
- » Even though they are naturally-occurring sugars are “natural”, they should only be eaten a little.
- » Processed sugars should be barely eaten or avoided (added or processed sugars are found in sodas, sweets, and baked goods).

FIBER

- » Helps to improve digestion, manage blood sugar, and reduce risk of heart disease.
- » You may notice some of these foods are also in the starch category: some types of legumes like lentils, chickpeas, and beans.
- » Some examples of fibrous foods are:
 - » Fruits, especially those with edible skin like apples and pears, and those with edible seeds, like berries, tomatoes, and kiwi.
 - » Nuts and seeds are also a good source of fiber, but should be eaten in moderation because of the high fat content.
 - » Whole grains like quinoa, barley, farro, brown rice, whole oats, and whole wheat foods.

DIABETES AND DIET: CARBOHYDRATES

WHAT TYPES OF CARBOHYDRATES TO EAT

Overall, when you're eating carbs, try to eat more fiber, some starch, and only a little refined, highly processed, or sugary carbohydrate foods.

COMPLEX CARBS	SIMPLE CARBS
<ul style="list-style-type: none"> » Eat more of these » Complex carbs have more nutrients, like fiber, essential vitamins, and minerals » Complex carbs are natural forms of food with less ingredients » Complex carbs help keep your weight down, blood sugar levels healthy, and reduces risks of other chronic diseases 	<ul style="list-style-type: none"> » Eat less of these » Simple carbs are sugars » Simple carbs are processed and refined foods » Simple carbs increase your risk of out-of-control blood sugars, diabetic complications, and developing other chronic diseases
EXAMPLES	EXAMPLES
<ul style="list-style-type: none"> » Fiber-rich fruit like apples, berries, bananas » Fiber-rich vegetables like broccoli, leafy greens, carrots » Nuts (a little at a time because of the high fat content) and seeds » Beans and legumes (peas, chickpeas) » Whole grains » Quinoa, buckwheat, whole wheat, whole oats, brown rice 	<ul style="list-style-type: none"> » Raw, white, or brown sugar » Foods with corn syrup and high-fructose corn syrup » Fruit juice concentrate » Soda » White bread, rice, and pastas » Baked goods » Cookies, crackers, candy, chips » Breakfast cereals » 1-minute anything

DIABETES AND DIET: *CARB COUNTING*

TYPE 1 DIABETES

If you have Type 1 Diabetes, your body no longer makes insulin. So when you eat, you need to take insulin to balance the carbs you're putting in your body. To do this correctly, you need to know how many grams of carbohydrates are in your meal.

Use an insulin-to-carb ratio to calculate how much insulin you will need to take to manage your blood sugars after eating.

TYPE 2 DIABETES

If you have Type 2 Diabetes, your body may still produce insulin, but it may not be enough, or your body may be resistant to the insulin. To avoid sugar spikes, it's important to eat the right amounts of carbohydrates at each meal throughout the day, rather than all at once.

People with Type 2 Diabetes who take oral medications may use a more basic method of carb counting than those on insulin.

To count carbs you can read labels or, if a product doesn't have a label, you can use apps and other tools to help calculate. The U.S. Department of Agriculture has a food database of nutritional information of thousands of foods. When you're reading a nutrition label, pay attention to the serving size and grams of total carbohydrates.

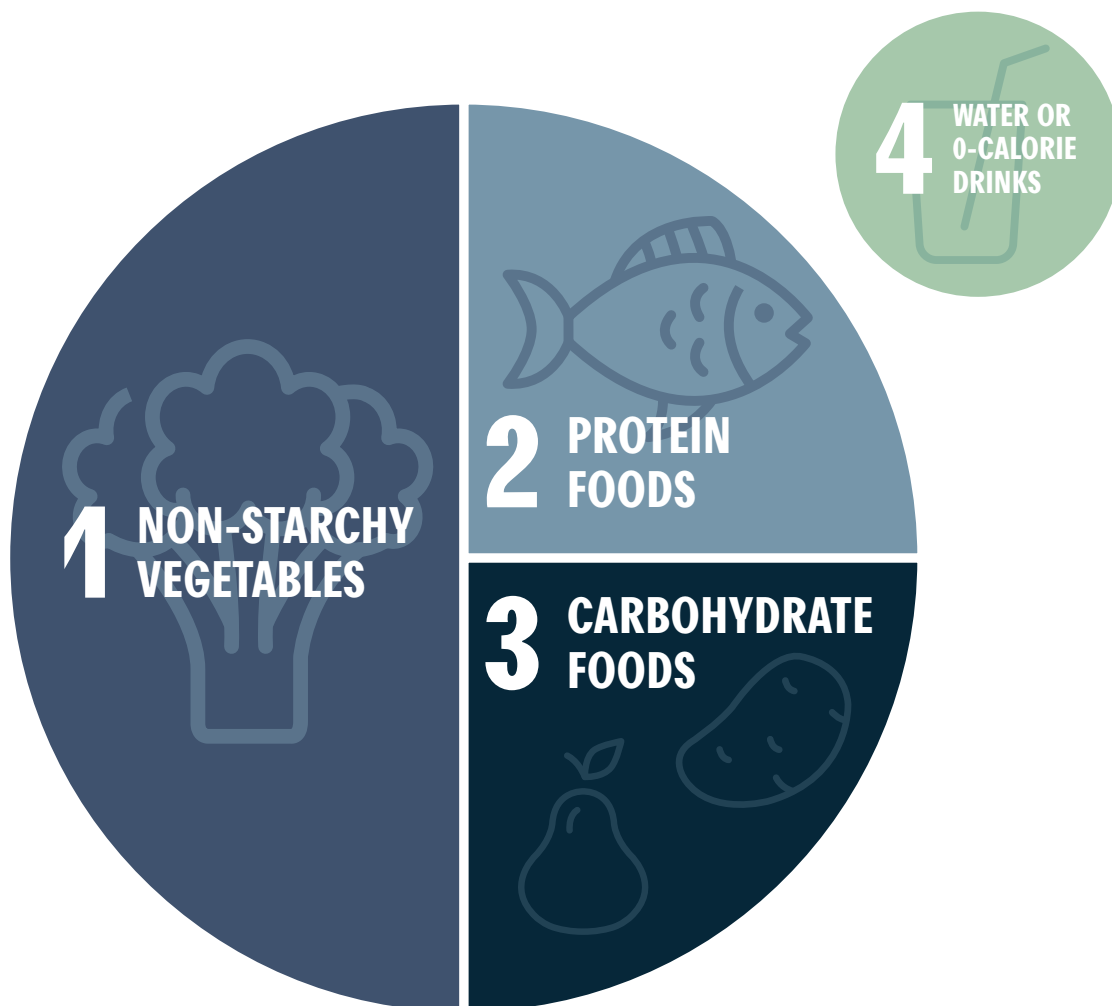


DIABETES AND DIET:

THE DIABETES PLATE METHOD

DIABETES PLATE METHOD

- » There is no dietary recommendation that is right for everyone, but following the Diabetes Plate Method can teach you how to build healthy meals that can help you manage your blood sugar. With this method, you can create meals that are the right size for you, with a healthy balance of vegetables, protein, and carbohydrates.
- » People with Diabetes should eat three (3) meals and up to three (3) snacks each day.
- » All healthy eating plans generally recommend a variety of colorful fruits and vegetables, lean meats, and plant-based sources of protein, along with less sugar, and less processed foods. Eat good to feel good. Keep it simple. Aim for consistency.



DIABETES AND DIET: *MANAGING YOUR BLOOD SUGAR WHILE SICK*

- 1 Check your blood sugar every four hours.
- 2 Check your temperature regularly, including each morning and evening.
- 3 Stay hydrated—drink $\frac{1}{2}$ -1 cup of liquid every hour.
- 4 Choose calorie-free liquids like water, diet soda, or clear broth.
- 5 Keep taking your medications as usual. Over-the-counter medications to control symptoms of the cold or flu may affect your blood sugar. Be sure to talk with your doctor or pharmacist about sugar-free products that can help.
- 6 Eat or drink 30-50 grams of carbohydrates every 3-4 hours.
- 7 Contact your doctor if:
 - » Your blood sugar stays higher than 180 mg/dL or lower than 70 mg/dL.
 - » You have a temperature over 101F for 24 hours.
 - » You are unable to keep liquids or solids down (if you have diarrhea or are vomiting for more than four hours).



DIABETES AND DIET:

NON-STARCHY VEGETABLES

WHAT ARE NON-STARCHY VEGETABLES?

Non-starchy vegetables are low calorie and low carbohydrate, but high in fiber, vitamins, minerals, and water content. Make half your plate non-starchy vegetables—this will help fill you up with fiber while having little effect on your blood sugar.



DIABETES AND DIET: *PARTY AND HOLIDAY PLANNING*

RECOMMENDATIONS

- » **Check blood sugars throughout the day** to make sure you are within your target range
- » Before you leave home, **eat a small, balanced meal or snack** so you aren't starving when you get there and tempted to eat too much
- » **Do your regular exercise** routine the day of the party
- » Balance your food intake and try to **follow the Diabetic Plate** at the party:
 - » Choose vegetables and fruits first
 - » Only have small amounts of dips (could have hidden sugar/carbs)
 - » Avoid or just have small amounts of creams, gravies, and butter
- » **Limit sweets and desserts**
- » **Avoid hanging around or "grazing" at the buffet table** or between meals
- » **Sip on a large glass of water** to keep you hydrated
- » **If you are drinking alcohol, do it in moderation**, and have it with food. Limit one (1) serving per day for women, and two (2) servings per day for men



DIABETES AND DIET: *PROTEIN*

WHAT IS PROTEIN?

Protein builds cells and muscles in our bodies. Protein has little to no effect on blood sugar. Choose lean or plant-based protein most often.

LEAN PROTEIN EXAMPLES



PLANT PROTEIN EXAMPLES



DIABETES AND DIET: SNACK GUIDELINES

RECOMMENDATIONS

- » Aim for 80% of your snacks to be healthy in order to maintain your weight and blood glucose levels.
- » Become mindful of your habits and try to avoid mindless snacking, like when watching TV.

IF YOU TAKE INSULIN:

- » A bedtime snack may be needed if your blood sugar tends to drop at night. If this is the case, talk to your doctor because it could mean your long-acting insulin dose may be too high.
- » If your blood sugar holds steady through the night without a snack, then you shouldn't have a bedtime snack. Having one may cause your blood sugar to rise, and could then mean you would need a dose of rapid-acting insulin to offset the effects of the carbohydrates in the snack.

BEFORE YOU EXERCISE:

- » Check your blood sugar. Check it during and after you exercise, too. Follow the "15-15 rule" if blood sugar is less than 100.
- » If it's been more than three hours since your last meal and you are going to exercise, eat a healthy snack 30-60 minutes before you start.

LOW CARBOHYDRATE (<5 GRAMS)	CARB-HEALTHY SNACKS (APPROX 15-20 GRAMS)
<ul style="list-style-type: none"> » Celery + one (1) tbsp nut butter » One (1) hard boiled egg » One (1) cup salad greens + ½ cup cucumber + drizzle of oil & vinegar » One (1) string cheese stick » ¾ cup of light popcorn 	<ul style="list-style-type: none"> » One (1) small apple + one (1) oz reduced-fat cheese » ½ cup plain yogurt + ⅓ cup berries » ⅓ cup hummus + one (1) cup raw veggies » ¼ cup dried fruit or nut mix » Three (3) cups light popcorn

DIABETES AND DIET: *TRAVELING TIPS*

RECOMMENDATIONS

- » **Bring in your carry-on bag or have handy in the car, bus, or train:**
 - » **Pack twice as much medication** and supplies as you think you'll need. If you are flying, keep the medicine in the pharmacy bottles to help TSA identify them. Keep them from being exposed to heat, direct sunlight, or freezing.
 - » **Pack healthy snacks**, like fruit, raw veggies, nuts, and seeds.
 - » When flying, diabetics are exempt from the 3.4 oz liquid rule for medications, fast-acting carbs like juice, and gel packs to keep insulin cool.
 - » **Drink plenty of water** when you travel.
- » **Monitor your blood sugar often and remember:**
 - » Changes in activity level can affect your blood sugars.
 - » High outdoor temperatures can affect your blood sugars.
- » **Choose healthy options on the go:**
 - » Sandwiches, fruits, nuts, yogurt.
 - » Salads with chicken or fish.
 - » Eggs and omelets.
 - » Burgers with a lettuce wrap instead of a bun.
 - » Fajitas, without the tortillas and rice.

