

# healthy meal planning for diabetes



It's important for patients with diabetes to make good decisions when it comes to their diet. A family approach to healthy eating is the best plan.

### healthy food options

- Non-starchy vegetables
- Whole-grain foods (at least 2-5 grams of fiber per serving)
- Fish 2 to 3 times per week
- Lean cuts of beef and pork
- Non-fat or low-fat dairy products
- Unsweetened beverages such as water, flavored waters, unsweetened coffee and tea, and calorie-free “diet” drinks
- Use liquid oils for cooking like olive oil instead of solid fats like butter or shortening

### managing diabetes through diet

- Develop a meal plan that works for you and stick to it. It is helpful to keep track of what you eat and drink with a food diary.
- Eat a wide variety of foods in small portions, several times a day.
- Make sure to check food labels for total carbohydrate content. It's also helpful to review total calories, fat and sodium.
- Exercise is very important when it comes to managing diabetes, but make sure that you are eating enough to maintain a good blood sugar level.
- Foods that are high in calories, cholesterol, saturated fat, trans fat and sodium should only be eaten occasionally.

### tips for dining out with diabetes

- Don't be afraid to ask exactly what comes in a dish or how it is cooked
- Drink water instead of soda or sugary drinks

*Many of the tables and information have been provided by The Diabetes Education Program from Novo Nordisk®*



## creating a plate that's right for you



1 dairy choice =  
12 grams of carbs

- Milk, 1 cup
- Plain yogurt, 1 cup

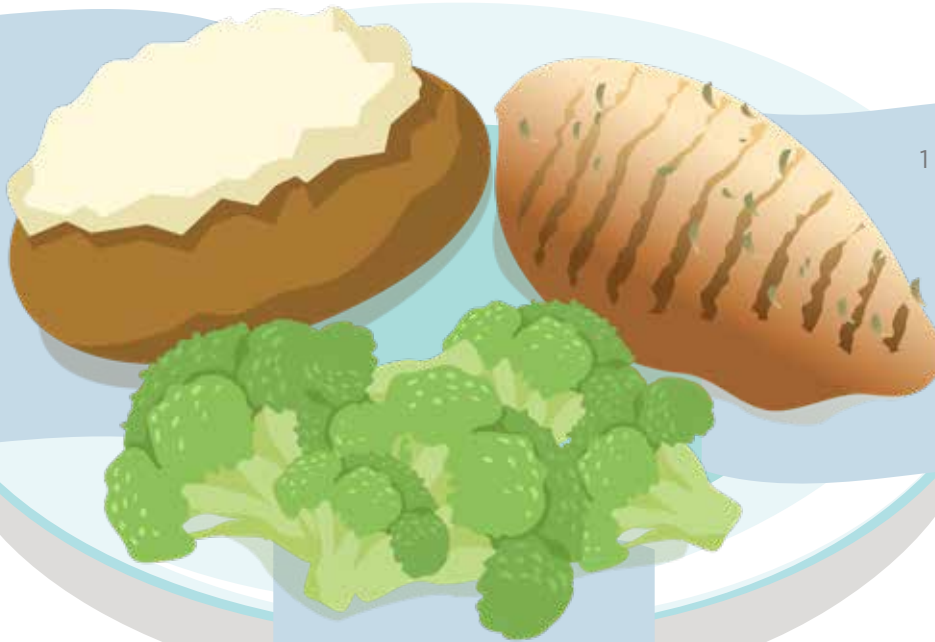


1 fruit choice = 15 grams of carbs

- Orange, small
- Blueberries,  $\frac{3}{4}$  cup
- Unsweetened Applesauce or Light Fruit Cup,  $\frac{1}{2}$  cup

1 starch choice =  
15 grams of carbs

- Pasta,  $\frac{1}{3}$  cup
- Rice,  $\frac{1}{3}$  cup
- Potato, boiled,  $\frac{1}{2}$  cup
- Bread, 1 slice
- Corn,  $\frac{1}{2}$  cup



1 meat/protein  
choice =  
0 grams of carbs

- Chicken, 3 ounces
- Fish, 3 ounces
- Beef, 3 ounces

1 non-starchy vegetable  
choice = 5 grams of carbs

- Raw vegetables, 1 cup
- Cooked vegetables,  $\frac{1}{2}$  cup



## portion control is key

To measure portion sizes exactly, use measuring cups and spoons, or a food scale. When these tools aren't available, here are some simple tips to estimate portions.



**Palm of your hand or a deck of cards = 3 ounces meat**

Use for cooked chicken, beef, pork, fish and seafood.



**Thumb tip = 1 teaspoon**

**Thumb or 2 dice =**

**1 oz or 1 tablespoon**

Use for butter, margarine, sugar, honey or condiments.



**Baseball, fist or cupped hand = 1 cup**

Use for cereal, pasta, rice, fruit and starchy vegetables (generally provides 30 to 45 grams of carbohydrate).



**1 handful =**

**1 ounce nuts/candy**

**2 handfuls = 1 ounce snacks**

Use for nuts, small candies, chips, pretzels and other snack foods

## reading food labels

- **Serving size:** The serving size is a very important piece of information on the food label. It is the portion that all of the nutrition facts are based on. For example, if you ate 1/3 cup of this food instead of the suggested 2/3 cup serving size, you would need to divide all of the nutrients listed on the label in half.
- **Total carbohydrates:** The total carbohydrate is measured in grams (g). This is the number that you will need, along with the serving size, to count the grams of carbs for your meal plan.
- **Added sugars:** Are also measured in grams (g). It's important to check the food label to see how many grams of added sugars the food contains. Added sugars are added as the food is made. Try to pick foods with less added sugar.

<b>Nutrition Facts</b>	
<b>Serving Size 2/3 cup (55g)</b>	
Servings per container about 8	
Amount Per Serving	
Calories 230	
	% Daily Value*
<b>Total Fat 8g</b>	10%
Saturated Fat 1g	5%
Trans Fat 0g	
<b>Cholesterol 0mg</b>	0%
<b>Sodium 160mg</b>	7%
<b>Total Carbohydrate 37g</b>	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
<b>Protein 3g</b>	
Vitamin A 0%	
Calcium 4%	
Iron 10%	
Vitamin C 0%	
*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.	

# non-carbohydrates

## meat/protein

- Meat and meat substitutes are a source of protein and do not raise blood sugar significantly
- Prepare meats without a batter - bake, grill or broil
- Three oz. of cooked meat = deck of cards
- The following chart shows what one choice of meat and meat substitutes contains
- The number of servings per day varies by individual meal plan

	protein	fat
lean meat	7	0-3
medium fat meat	7	4-7
high fat meat	7	8+

meat	options	1 choice
Beef	<b>Lean</b> - ground round, roast, round, sirloin, tenderloin <b>Medium fat</b> - corned beef, ground beef, prime rib, short ribs	1 oz. 1 oz.
Chicken	<b>Lean</b> - without skin <b>Medium fat</b> - with skin	1 oz. 1 oz.
Fish	<b>Lean</b> - smoked: herring or salmon (lox) <b>Medium fat</b> - any fried product	1 oz. 1 oz.
Lamb	<b>Lean</b> - chop, leg or roast <b>Medium fat</b> - ground, rib roast	1 oz. 1 oz.
Pork	<b>Lean</b> - Canadian bacon, rib or loin chop/roast, ham, tenderloin <b>Medium fat</b> - Cutlet, shoulder roast <b>High fat</b> - ground, sausage, spareribs	1 oz. 1 oz. 1 oz.
Sandwich meats	<b>Lean</b> - chipped beef, deli thin-sliced meats, turkey, ham <b>High fat</b> - bologna, pastrami, hard salami	1 oz. 1 oz.
Sausage	<b>Medium fat</b> - with 4-7 grams of fat per oz. <b>High fat</b> - bratwurst, chorizo, Italian, knockwurst, Polish, smoked	1 oz. 1 oz.
Shellfish	<b>Lean</b> - clams, crab, imitation shellfish, lobster, scallops, shrimp	1 oz.
Veal	<b>Lean</b> - loin chop, roast <b>Medium fat</b> - cutlet (no breading)	1 oz. 1 oz.

## fats

- Should be used sparingly
  - Examples include: butter, shortening, oil, sour cream, bacon and cream cheese
- May contain a small amount of carbs
  - Examples include: salad dressings, avocado, seeds, nuts and nut butters
- Will help slow the rise of blood sugar after meals

## carbohydrates

- All carbohydrates eventually turn into blood sugar (also known as blood glucose) after digestion. Carbohydrate is the part of food that is called starch, sugar and fiber.
- Each carb choice listed contains approximately 15 grams of carbs.

### milk

milk and yogurts	serving size or portion
Chocolate milk, fat-free or whole	½ cup
Evaporated milk (all kinds)	½ cup
Ice cream, light, no sugar added or regular	½ cup
Milk or buttermilk, fat-free, low-fat (1%), reduced-fat (2%), or whole	1 cup
Soy milk, light or regular, plain	1 cup
Yogurt, plain, whole	1 cup

### starch/grains

bread	serving size or portion
Bagel, large (about 4 oz.)	¼ (1 oz.)
Bread, reduced-calorie	2 slices
Bread, white, whole-grain, pumpernickel, rye	1 slice (1 oz.)
English muffin	½
Hot dog or hamburger bun	½ (1 oz.)
Pancake, 4 inches across	1
Pita, 6 inches across	½
Roll, plain, small	1 (1 oz.)
Taco shell, 5 inches across	2
Tortilla, corn or flour, 6 inches	1
Waffle, 4-inch square	1

Each carb choice listed contains approximately 15 grams of carbs.

crackers and snacks	serving size or portion
Animal crackers	8
Cookies, Chocolate Chip	2 cookies
Crackers, Round, butter type Saltine-type Sandwich style, cheese or peanut butter filling Whole wheat	6 6 3 2-5
Graham cracker, 2 ½ inch square	3
Oyster crackers	20
Popcorn	3 cups
Pretzels	¾ oz.
Rice cakes, 4 inches across	2
Snack chips Fat-free or baked (tortilla, potato, pita) Regular (tortilla, potato)	15-20 9-13

cereals and grains	serving size or portion
Bran, dry, wheat	½ cup
Cereals Cooked (oats, oatmeal) Puffed Shredded wheat, plain Sugar-coated Unsweetened, ready-to-eat	½ cup 1 ½ cups ½ cup ½ cup ¾ cup
Couscous	½ cup
Granola, low-fat or regular	¼ cup
Grits, cooked	½ cup
Pasta, cooked	½ cup
Rice, white or brown, cooked	½ cup
Wild rice (cooked)	½ cup



Each carb choice listed contains approximately 15 grams of carbs.

starchy vegetables/legumes	serving size or portion
Baked beans	½ cup
Beans, cooked (black, garbanzo, kidney, lima, navy, pinto, white)	½ cup
Corn on the cob, large	½ cup
Lentils, cooked	½ cup
Mixed vegetables with corn, peas or pasta	1 cup
Peas, green	½ cup
Potato Baked with skin Boiled with skin Mashed, with milk and fat French fried (oven-baked)	¼ large (3 oz.) ½ cup ½ cup 1 cup (2 oz.)
Pumpkin, canned, no sugar added	1 cup
Squash, winter (acorn, butternut)	1 cup
Yam, sweet potato, plain	½ cup

### non-starchy vegetables

- Do not raise blood sugar as much as starchy vegetables
- One cup raw or ½ cup cooked = 5 grams of carbohydrates

Artichoke hearts	Celery	Peppers (all varieties)
Asparagus	Cucumber	Radishes
Baby corn	Eggplant	Sauerkraut
Bamboo shoots	Green onions or scallions	Soybean sprouts
Bean sprouts	Greens (collard, kale, mustard, turnip)	Spinach
Beans (green, wax, Italian)	Leeks	Squash (summer, crookneck, zucchini)
Broccoli	Mushrooms, all kinds, fresh Onions	
Brussels sprouts	Mixed vegetables (without corn, peas or pasta)	Pea pods
Cabbage (green, bok choy, Chinese)		Tomato
Cauliflower	Onions	Turnips
Carrots	Okra	Water chestnuts



## fruits

Each carb choice listed contains approximately 15 grams of carbs.

fruits	serving size or portion
Apple, with skin, small	1 (4 oz.)
Applesauce, unsweetened	½ cup
Banana	½ (4 oz.)
Blackberries	¾ cup
Blueberries	¾ cup
Cantaloupe or honeydew	1 cup
Cherries	12 (3 oz.)
Dried fruits	2 tbsp.
Fruit juice	½ cup
Grapefruit, large	½ (11 oz.)
Grapes, small	17 (3 oz.)
Kiwi	1 (3 ½ oz.)
Orange, small	1 (6 ½ oz.)
Peaches, medium	1 (6 oz.)
Pears	½ cup (4 oz.)
Pineapple	¾ cup
Raspberries	1 cup
Strawberries	1 ¼ cups whole
Tangerines, small	2 (8 oz.)
Watermelon	1 slice or 1 ¼ cups



## other carbohydrates

### sweets and desserts

- May be included with a healthy diet in moderation
- Recommend if going to consume, then to consume in conjunction with a meal

sweets and desserts <i>(Each carb choice listed below contains approximately <b>15 grams of carbs</b>)</i>	serving size or portion
Brownie, small, unfrosted	1 ¼ inch square, ⅞ inch high (about 1 oz)
Cake, unfrosted	2 inch square (about 1 oz)
Candy, hard	3 pieces
Ice cream, regular	½ cup
Pudding, sugar-free	½ cup
Sandwich cookie with crème filling	2 small cookies (about 2/3 oz)

sweets and desserts <i>(Each carb choice listed below contains approximately <b>30 grams of carbs</b>)</i>	serving size or portion
Candy, chocolate, dark or milk	1 ¾ oz
Cupcake, frosted	1 small cupcake (about 1 ¾ oz)
Doughnut, yeast-type, glazed	1 doughnut, 3 ¾ inches across (2 oz)
Soft serve ice cream cone	1 small

sweets and desserts <i>(Each carb choice listed below contains approximately <b>45 grams of carbs</b>)</i>	serving size or portion
Fruit cobbler	½ cup (3 ½ oz)
Fruit pie, commercially prepared with 2 crusts	1/6 of 8 inch pie
Plain cheesecake	1 slice 1/12 of 9 inch cake (4.8 oz)
Hot Fudge Sundae	Small

## combination foods

- Contain a mixture of proteins, starches and/or vegetables

combination foods <i>(Each carb choice listed below contains approximately <b>15 grams of carbs</b>)</i>	serving size or portion
Soup (tomato, cream, broth-types)	1 cup (8 oz)
Stew (beef/other meats and vegetables)	1 cup (8 oz)

combination foods <i>(Each carb choice listed below contains approximately <b>30 grams of carbs</b>)</i>	serving size or portion
Casserole type entrees (tuna noodle, lasagna, spaghetti and meatballs, chili with beans, macaroni and cheese)	1 cup (8 oz)
Pizza, thin crust	¼ of 12 inch pizza (5 oz)
Potato or macaroni/pasta salad	½ cup

## fast foods

fast foods <i>(Each carb choice listed below contains approximately <b>15 grams of carbs</b>)</i>	serving size or portion
Chicken breast, breaded & fried	1 chicken breast (about 7 oz w/ bone and skin)
Chicken nuggets or tenders	6 pieces (about 3 ½ oz)
Meat, fish, or poultry stir fried with vegetables	1 cup (about 6 oz)
Egg roll, meat	1 egg roll (about 3 oz)
Taco, crisp, with meat and cheese	1 small taco (about 3 oz)



## fast foods (cont.)

fast foods (Each carb choice listed below contains approximately <b>30 grams of carbs</b> )	serving size or portion
Breakfast sandwich, biscuit or English muffin (with egg meat, and cheese)	1 sandwich
Hamburger, regular	1 burger (3 ½ oz) with bun
Noodles and vegetables in sauce (chow mein, lo mein)	1 cup

fast foods (Each carb choice listed below contains approximately <b>45 grams of carbs</b> )	serving size or portion
Chicken sandwich, grilled (with lettuce and tomato)	1 sandwich (about 7 ½ oz)
French Fries	1 medium order (about 5 oz)
Submarine sandwich	1 6-inch sub
Beef burrito supreme	1 burrito (about 7 oz)

\*\*\*Reference: Count Your Carbs Getting Started American Diabetes Association and Academy of Nutrition and Dietetics

## snack ideas

These food items have about 5 grams of carbohydrates or less per serving. They can be eaten up to 3 different times throughout the day. Remember, all foods have calories that can contribute to unhealthy weight gain if eaten in excess. Also, many carb-free foods are high in fat. When eaten in excess, high-fat foods can be bad for your heart health, even if you are at an appropriate weight for your height.

### 5 gram or less per serving carbohydrate snacks

- ¼ cup low-fat cottage cheese
- ¼ cup almonds, peanuts, pistachio or macadamia nuts
- 1 slice of turkey rolled up with 1 slice part-skim cheese with mustard
- 5 small celery sticks spread with peanut butter
- 5–7 cocktail shrimp (not breaded or fried)
- Slim jim or pepperoni stick
- 1 part-skim mozzarella cheese stick, slices or cubes
- 1 oz tuna mixed with 1 tbsp light mayo, spread on 4 wheat thin crackers
- 1 cup raw broccoli, cauliflower, peppers and cucumbers dipped in 2 tbsp light ranch dressing (optional)
- 1 cup sugar-free Jell-O with 1 tbsp sugar-free Cool Whip
- Cucumber salad prepared with thinly sliced cucumbers, sour cream, dill and vinegar (½ cup serving)
- Dill pickles
- 2 oz grilled chicken breast (chopped), mixed with light mayo, mustard or Italian dressing. Wrap in lettuce leaf or eat plain.
- 1 sugar-free popsicle
- 1 cup popcorn



## 15 gram per serving carbohydrate snacks

- ½ cup canned fruit (lite, or in own juice)
- 1 small piece of fresh fruit
- 3 cups light popcorn
- 24 Cheez-Its or 0.75 oz pack of Goldfish
- 1 tbsp raisins mixed with 1 oz peanuts
- 10 Triscuits with 1 string cheese
- Salad: 1 cup spinach/lettuce, ½ cup cucumber, ½ cup tomatoes, ½ cup carrots with 2 tbsp dressing
- 1 slice low-carb bread with 1 tbsp peanut butter and 1 tsp low sugar spread
- 3 oz baby carrots, 2 tbsp ranch dressing and 1 string cheese
- ½ fresh apple with 2 tbsp peanut butter
- 3 graham crackers and 1 tbsp peanut butter
- ½ cup sweetened Jell-O
- 6 oz greek yogurt (plain or flavored – “light”)
- ½ cup fresh diced pineapple with ½ cup cottage cheese
- ½ cup cooked cereal
- 1 sugar-free pudding pop
- 4 animal crackers with 4 oz skim milk
- ¾ oz pretzels
- ¾ cup cream soup
- 1 cup vegetable soup
- 1 ¼ cup chicken noodle soup
- ⅓ cup frozen yogurt
- ½ small bagel with low-fat cream cheese
- ½ cup sugar-free pudding
- 1 slice turkey breast, lettuce and tomato wrapped in 6 in. tortilla
- ½ cup ice cream
- ½ roast beef sandwich on whole wheat



## sugar free drinks

- Diet sodas
- Unsweetened tea or coffee
- Powerade or Gatorade Zero
- Diet Cran juice drink
- Minute Maid Zero juices
- Water flavoring drops or powder
- Vitamin Water Zero
- Crystal Light
- La Croix or Bubly
- Sparkling ICE

## exercise and food

Different levels of exercise can affect blood sugar levels. The chart below will help you know what kinds of foods (if any) you should give your child to help regulate their blood sugar after exercise.

	Mild intensity exercise	Moderate intensity exercise	Hard intensity exercise
Blood sugar level	Fairly easy exercise and less than 30 minutes in duration. Examples are walking, easy biking, baseball, hide and seek, hop scotch, and jumping rope.	Somewhat hard exercise for 1 hour. Examples are swimming, easy biking, roller skating, skate boarding, aerobics.	Examples are fast biking, basketball, hiking, football, soccer and team sports.
Less than 80	Treat for low blood sugar	Treat for low blood sugar	Treat for low blood sugar
80-120	15 g carbohydrate	15 g carbohydrate + protein	30 g carbohydrate + protein
120-180	Do not need extra snack	15 g carbohydrate	15 g carbohydrate + protein
180-240	Do not need extra snack	May not need extra snack	15 g carbohydrate
240 or above	Do not need extra snack	Do not need extra snack	May not need extra snack



## web & app resources for diabetes

### nutrition

USDA – [www.choosemyplate.gov](http://www.choosemyplate.gov)

Vegetables and fruits – [www.fruitsandveggies.org](http://www.fruitsandveggies.org)

Academy of Nutrition and Dietetics – [www.eatright.org](http://www.eatright.org)

Calorie King Online – [www.calorieking.com/](http://www.calorieking.com/)

FoodData Central – <https://fdc.nal.usda.gov/>

Calorie Count/Recipe Analyzer – [www.caloriecount.com](http://www.caloriecount.com)

### diabetes support

Diabetes Care.Net – [www.diabetescare.net](http://www.diabetescare.net)

Children with Diabetes – [www.childrenwithdiabetes.com](http://www.childrenwithdiabetes.com)

Juvenile Diabetes Research Foundation – [www.jdrf.org](http://www.jdrf.org)

Dayton Area Diabetes Association – [www.diabetesdayton.org](http://www.diabetesdayton.org)

Carb Counting with Lenny – [www.lenny-diabetes.com](http://www.lenny-diabetes.com)

Diabetic Living Magazine – [www.diabeticlivingonline.com](http://www.diabeticlivingonline.com)

American Diabetes Association Recipes –

[www.diabetesfoodhub.org](http://www.diabetesfoodhub.org)

### smartphone apps

Calorie King Food Search

MyPlate Calorie Counter

MyFitness Pal

Carb Counting with Lenny

Bitesnap

## sample 1 day carbohydrate counting menu

This menu is designed for children ages 6-to 8-years-old. Ask a registered dietitian to review whether this menu is right for your child or ways to add more food items or servings for an older child.

### breakfast

- cup whole grain cereal
- 8 ounces low-fat milk
- ½ large banana

### morning snack

- 1 whole grain granola bar

### lunch

- ½ sandwich: 1 slice whole grain bread, 1 ounce turkey, 1 ounce light cheese, light mayonnaise
- 1 small apple
- 1 ounce baked chips
- 8 ounces low-fat milk

### afternoon snack

- 6 whole grain crackers with 1 tablespoon peanut butter

### dinner

- 1 cup whole wheat pasta
- ¼ cup tomato sauce with two 1-ounce meatballs
- ½ cup steamed green beans
- 1 cup tossed salad with 2 tablespoons light dressing
- 2 teaspoons light, tub spread
- 8 ounces low-fat milk

### after dinner snack

- ½ cup light ice cream

