

Daily Diabetes Meal Planning Guide

A daily meal plan is an important part of your diabetes management, along with physical activity, blood sugar (glucose) checks and, often, diabetes medications.

There is no one meal plan that works for everybody with diabetes. This guide provides you with information that may help you plan your meals, including:

- **Balance Your Plate:** Many people with diabetes like to keep meal planning simple. This eating plan can help you easily portion out your food.
- **A Handy Guide to Portion Sizes:** Quick tips for estimating portion sizes
- **Food Lists for Meal Planning:** If you want to count servings of food and follow a plan that is good for your diabetes too, use this tool to help you figure out how many carbohydrates, proteins, and fats are a good amount for you.
- **Carbohydrate Counting:** There are many foods with carbohydrates to enjoy, including grains, fruits, vegetables, milk products and even those with sugar. Carbohydrates raise your blood sugar level more than proteins and fats. This meal planning approach helps you keep track of how many carbohydrates you eat in your meals and snacks. Many people who take insulin like to use this plan.

Dietary Guidelines at a Glance:

- Balance your calories to manage your weight
- Increase your intake of nutrient-dense foods such as fruits, vegetables, whole grains, low-fat dairy and protein, and healthy fats/oils
- Reduce your intake of sodium, fats, added sugars, refined grains and alcohol
- Build healthy eating patterns

Checking your blood sugar as directed by your healthcare provider will help you to see how your food choices affect your blood sugar control.

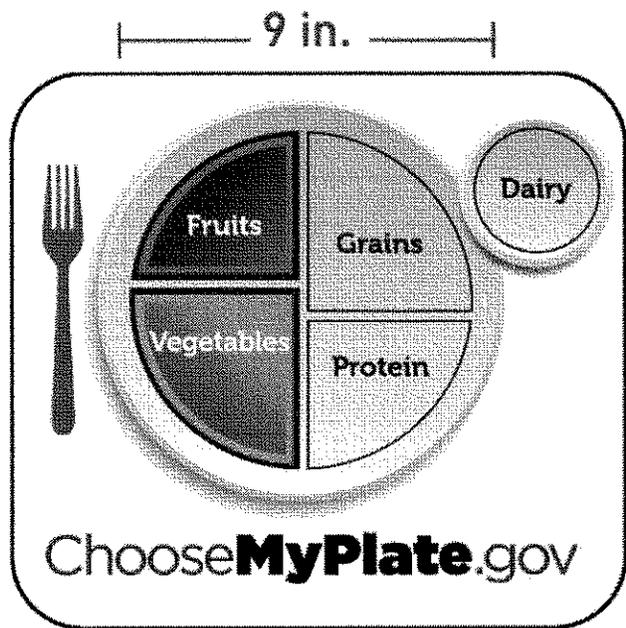
A registered dietitian (RD) can help you make a meal plan that best meets your needs and lifestyle. Ask your healthcare provider, certified diabetes educator (CDE), hospital, or local diabetes association for the names of RDs in your area who work with people who have diabetes or find an RD at www.eatright.org.

Visit us at www.LillyDiabetes.com



Meal Planning Options

Balance Your Plate



- **FRUITS:** A serving of fruit is 1 small fresh fruit, 2 tbsp dried fruit, or ½ cup canned fruit or 4 oz unsweetened fruit juice.
- **VEGETABLES:** Choose nonstarchy vegetables, such as broccoli, carrots, cauliflower or green beans.
- **GRAINS:** Fill ¼ of the plate with a bread, cooked grain, or starchy vegetable such as corn, brown rice, or potatoes. Choose whole grains more often.
- **DAIRY:** Add 1 cup fat-free/low-fat milk or ⅔ cup fat-free/low-fat/light yogurt.
- **PROTEIN:** Fill this ¼ of the plate with lean meat, poultry, or fish. If you choose a plant-based protein, such as dried beans, consider the carbohydrate content as part of your total carbohydrate amount for the meal.

MyPlate is not customized to match an individual's carbohydrate needs and blood sugar goals. It's still important to see an RD or CDE for nutrition advice.

A Handy Guide to Portion Sizes:



The palm, not including fingers and thumb, is about 3 ounces of cooked and boneless meat.



The fist is about 1 cup or about 30 grams of carbs for foods, such as 1 cup ice cream or 1 cup cooked cereal.



The thumb is about 1 tablespoon or 1 serving of regular salad dressing, reduced-fat mayonnaise, or reduced-fat margarine.



The thumb tip is about 1 teaspoon or 1 serving of margarine, mayonnaise, or other fats or oils.

Hand sizes vary. These portion estimates are based on a woman's hand size. Measuring or weighing foods is the most accurate way to figure out portion size.

Food Lists for Meal Planning

Key

- * Foods marked with * should be counted as 1 starch + 1 fat per serving
- ⊙ Foods marked with ⊙ contain more than 3 grams of dietary fiber per serving
- I Foods marked with I contain 400 mg or more of sodium per serving
- oz= ounce
- tsp= teaspoon
- tbsp= tablespoon

Adapted from:
The Official Pocket Guide to Diabetic Exchanges,
 American Diabetes Association, 2011.

Starch

Each serving from this list contains 15 grams carbohydrate, 0-3 grams protein, 0-1 gram fat and 80 calories.

Most of the calories in these foods come from carbohydrates, a good source of energy. Many foods from this group also give you fiber, vitamins, and minerals. Prepare and eat starchy foods with as little added fat as possible. Choose whole grain starches when you can.

In general, a single serving of starch is:

- ½ cup of cooked cereal, grain, or starchy vegetable
- ½ cup of cooked rice or pasta
- 1 oz of a bread product (such as 1 slice of whole wheat bread)
- ¾ to 1 oz of most snack foods (some snack foods may also have extra fat)

Bread	Serving Size
Bagel (large, about 4 oz)	¼
*Biscuit (2 ½ inches across)	1
Bread (whole wheat, white or rye) (1 oz)	1 slice
*Cornbread (1 ¾-inch cube or 1 ½ oz)	1
English muffin	½
Hot dog or hamburger bun (1 oz)	½
Pancake (4 inches across, ¼-inch thick)	1
Pita pocket (6 inches across)	½
Roll (plain, small, 1 oz)	1
Tortilla (corn or flour, 6 inches across)	1
*Waffle (4-inch square or 4-inch diameter)	1

Cereals and Grains	Serving Size
Cereals, cooked (oats, oatmeal)	½ cup
Cereals (unsweetened, ready-to-eat)	¾ cup
Couscous	⅓ cup
Granola (low-fat)	¼ cup
Pasta, cooked	⅓ cup
Rice, cooked (white or brown)	⅓ cup

Starchy Vegetables	Serving Size
Corn	½ cup
Corn on cob (large, 5 oz)	½ cob
⊙ Hominy, canned	¾ cup
⊙ Peas, green	½ cup
Plantain, ripe	⅓ cup
Potato	
Baked with skin (3 oz)	1
Boiled, all kinds (3 oz)	½ cup
French fried (oven-baked) (2 oz)	1 cup
*Mashed with milk and fat	½ cup
I Spaghetti/red pasta sauce	½ cup
⊙ Squash, winter	1 cup
Yam, sweet potato, plain	½ cup

Crackers and Snacks	Serving Size
Crackers	
*Round, butter-type	6
Saltines	6
Graham cracker (2 ½-inch square)	3
⊙ Popcorn	
*With butter	3 cups
Lower fat or no fat added	3 cups
Pretzels	¾ oz
Snack chips (tortilla chips, potato chips)	
Fat-free or baked (¾ oz)	15-20
*Regular (¾ oz)	9-13

Beans, Peas, and Lentils (Count as 1 Starch + 1 Lean Meat)

	Serving Size
⊙ Baked beans	⅓ cup
⊙ Beans, cooked (black, garbanzo, kidney, lima, navy, pinto, white)	½ cup
⊙ Lentils, cooked (brown, green, yellow)	½ cup
⊙ Peas, cooked (black-eyed, split)	½ cup

Fruits

Each serving from this list contains 15 grams carbohydrate, 0 grams fat, 0 grams protein and 60 calories.

Fruits are good sources of fiber, regardless of whether they are fresh, frozen, or dried. Fruit juices contain very little fiber. Choose whole fruit instead of juices whenever possible. When using canned fruit, choose fruit packed in its own juice or light syrup.

In general, a single serving of fruit is:

- ½ cup of canned or fresh fruit or 4 oz unsweetened fruit juice
- 1 small fresh fruit (4 oz)
- 2 tablespoons of dried fruit

Fruit	Serving Size
Apple, unpeeled (small, 4 oz)	1
Applesauce, unsweetened	½ cup
Banana (extra small, 4 oz)	1
Berries	
⊙ Blackberries	¾ cup
Blueberries	¾ cup

Fruit (continued)	Serving Size
⊙ Raspberries	1 cup
⊙ Strawberries (whole)	1 ¼ cup
Cantaloupe (cubed)	1 cup
Cherries (sweet, fresh, 3 oz)	12
Dried fruits (blueberries, cherries, cranberries, mixed fruit, raisins)	2 tbsp
Grapefruit (large, 11 oz)	½
Grapes (small, 3 oz)	17
Guava	½ cup
⊙ Kiwi (3 ½ oz)	1
Mandarin oranges, canned	¾ cup
Mango (small, 5 ½ oz)	½ fruit or ½ cup
⊙ Orange (small, 6 ½ oz)	1
Papaya (cubed, 8 oz)	½ fruit or 1 cup
Peaches (fresh, medium, 6 oz)	1
Pears (fresh, large, 4 oz)	½
Pineapple (fresh)	¾ cup
Plums (small)	2
Dried (prunes)	3
Watermelon (cubes, 13 ½ oz) 1 slice or 1 ¼ cups	

Fruit Juice	Serving Size
Apple, grapefruit, orange, pineapple	½ cup
Fruit juice blends (100% juice)	½ cup
Grape juice	⅓ cup
Prune juice	⅓ cup

Milk

Milk and yogurt are rich in calcium and protein. Choose fat-free, low-fat and reduced-fat varieties for health. They have less saturated fat and cholesterol than whole milk products.

Fat-free (skim) or low-fat (1%) milk and yogurt: Each serving from this list contains 12 grams carbohydrate, 8 grams protein, 0-3 grams fat and 100 calories.

	Serving Size
Milk, buttermilk, acidophilus milk, Lactaid	1 cup
Evaporated milk	½ cup
Yogurt (plain or flavored with a low-calorie sweetener, 6 oz)	¾ cup

Reduced-fat (2%) milk and yogurt: Each serving from this list contains 12 grams carbohydrate, 8 grams protein, 5 grams fat and 120 calories.

	Serving Size
Milk, acidophilus milk, Lactaid	1 cup
Yogurt (plain, 6 oz)	¾ cup

Whole milk and yogurt: Each serving from this list contains 12 grams carbohydrate, 8 grams protein, 8 grams fat and 160 calories.

Milk, buttermilk, goat's milk	1 cup
Evaporated milk	½ cup
Yogurt (plain, 8 oz)	1 cup

Food Lists for Meal Planning

Dairy-like Foods

	Serving Size
Chocolate milk (fat-free)	1 cup
(1 fat-free milk + 1 carbohydrate)	
Chocolate milk (whole)	1 cup
(1 whole milk + 1 carbohydrate)	
Smoothies (flavored, regular)	10 oz
(1 fat-free milk + 2 1/2 carbohydrate)	
Soy milk (regular, plain)	1 cup
(1 carbohydrate + 1 fat)	
Yogurt with fruit (low-fat, 6 oz)	3/4 cup
(1 fat-free milk + 1 carbohydrate)	

Nonstarchy Vegetables

Each serving from this list contains **5 grams carbohydrate, 2 grams protein and 25 calories.**

You should try to eat at least 2 to 3 servings of nonstarchy vegetables each day. Choose a variety of vegetables to benefit from their essential vitamins, minerals, and antioxidants. When using canned vegetables, choose no-salt-added versions or rinse.

In general, a single serving of a nonstarchy vegetable is:

- 1/2 cup of cooked vegetables or vegetable juice
- 1 cup of raw vegetables

Amaranth or Chinese spinach
Beans (green, wax, Italian)
Bean sprouts
Broccoli
Cabbage (green, bok choy, Chinese)
☉ Carrots
Cauliflower
Celery
Cucumber
Eggplant
Greens (collard, kale, mustard, turnip)
Jicama
Mushrooms
Okra
Onions
Pea pods
☉ Peppers (all varieties)
Radishes
! Sauerkraut
Spinach
Squash (summer, crookneck, zucchini)
Tomatoes (fresh and canned)
! Tomato sauce
! Tomato/vegetable juice
Water chestnuts

Sweets, Desserts, and Other Carbohydrates

Each serving from this list contains **15 grams carbohydrate; protein, fat and calorie content varies.**

You can substitute food choices from this list for other carbohydrate-containing foods (such as those found on the Starch, Fruit or Milk lists) in your meal plan, even though these foods have added sugars or fat. The foods on this list do not have as many vitamins, minerals, and fiber. Choose foods from this list less often, especially if you are trying to lose weight. Many sugar-free, fat-free and reduced-fat products are made with ingredients that contain carbohydrates, so check the Total Carbohydrate information on the Nutrition Facts food label. Count each serving as 1 carbohydrate unless otherwise noted.

Food	Serving Size
Brownie (small, unfrosted, about 1 oz)	1
(1 carbohydrate + 1 fat)	
Cake (frosted, 2-inch square)	1
(2 carbohydrates + 1 fat)	
Cake (unfrosted, 2-inch square)	1
(1 carbohydrate + 1 fat)	
Candy bar (chocolate/peanut)	2 "fun size" bars
(1 1/2 carbohydrates + 1 1/2 fats)	
Candy (hard)	3 pieces
Cookies (chocolate chip, 2 1/4 inch across)	2
(1 carbohydrate + 2 fats)	
Cookies (vanilla wafer)	5
(1 carbohydrate + 1 fat)	
Doughnut (cake, plain, medium, about 1 1/2 oz)	1
(1 1/2 carbohydrates + 2 fats)	
Fruit juice bars (frozen, 100% juice, 3 oz)	1 bar
Gelatin, regular	1/2 cup
Granola snack bar (regular or low-fat)	1 oz bar
(1 1/2 carbohydrates)	
Hot chocolate, (regular, made with water)	
(1 carbohydrate + 1 fat)	1 envelope
Ice cream (light or no sugar added)	1/2 cup
(1 carbohydrate + 1 fat)	
Ice cream (regular)	1/2 cup
(1 carbohydrate + 2 fats)	
Jam or jelly (regular)	1 tbsp
Muffin (4 oz)	1/4 muffin
(1 carbohydrate + 1/2 fat)	
Pie (8-inch, 2-crust, fruit)	1/6 pie
(3 carbohydrates + 2 fats)	
Pudding (regular, made with reduced-fat milk)	
(2 carbohydrates)	1/2 cup
! Pudding (sugar-free or sugar- and fat-free, made with fat-free milk)	1/2 cup
Sports drink	1 cup (8 oz)
Sugar	1 tbsp
Syrup (light, pancake type)	2 tbsp
Syrup (regular, pancake type)	1 tbsp
Yogurt (frozen, fat-free)	1/3 cup

Meat and Protein Sources

Lean meats and protein sources: Each serving from this list contains **0 grams carbohydrate, 7 grams protein, 0-3 grams fat and 45 calories.**

Meat and protein sources are rich in protein. Whenever possible, choose lean meats. Portion sizes on this list are based on cooked weight, after bone and fat have been removed. The carbohydrate content varies among plant-based proteins, so read food labels carefully.

Beef (Select or Choice grades, trimmed of fat):	
Ground round, roast (chuck, rib, rump),	1 oz
sirloin, steak (cubed, flank,	
porterhouse, T-bone, tenderloin)	
Cheeses (with 3 grams of fat or less per oz)	1 oz
Cottage cheese	1/4 cup
Egg whites	2
Fish (fresh or frozen, plain):	1 oz
Catfish, cod, flounder, haddock, halibut, orange	
roughy, salmon, tilapia, trout, tuna	
! Hot dog (with 3 grams of fat or less per oz)	1
Pork (lean):	1 oz
Rib or loin chop/roast, ham, tenderloin,	
! Canadian bacon	
Poultry (without skin)	1 oz
Processed sandwich meats (with 3 grams of fat or less per oz)	1 oz
Tuna (canned in water or oil, drained)	1 oz

Medium-fat meat and protein sources: Each serving from this list contains **0 grams carbohydrate, 7 grams protein, 4-7 grams fat and 75 calories.**

Beef:	1 oz
Comed beef, ground beef, meatloaf,	
Prime grades trimmed of fat (prime rib)	
Cheeses (with 4-7 grams of fat per oz)	1 oz
Mozzarella, pasteurized processed cheese	
spread, reduced-fat cheeses, string cheese,	
! Feta	
Egg	1
Fish, any fried type	1 oz
Pork (cutlet, shoulder roast)	1 oz
Poultry (with skin or fried)	1 oz
Ricotta cheese (2 oz)	1/4 cup
! Sausage (with 4-7 grams of fat per oz)	1 oz

High-fat meat and protein sources: Each serving from this list contains **0 grams carbohydrate, 7 grams protein, 8+ grams fat and 100 calories.**

Bacon (pork)	2 slices
! Bacon (turkey)	3 slices
Cheese (regular):	1 oz
American, bleu, brie, cheddar, hard goat,	
Monterey jack, queso, swiss	
*! Hot dog (beef, pork, or combination)	1

Pork sparerib	1 oz
Processed sandwich meats (with 8 or more grams of fat per oz): Bologna, pastrami, 1 hard salami	1 oz
! Sausage (with 8 or more grams of fat per oz): Bratwurst, chorizo, Italian, knockwurst, Polish, smoked, summer	1 oz

Plant-based proteins: Each serving from this list contains 7 grams protein; amount of carbohydrate, fat, and calories varies.

Beans, peas, and lentils are also found on the Starch list. Nut butters in smaller amounts are found in the Fats list.

Food	Serving Size
☉ Beans, lentils, or peas (cooked) (1 starch + 1 lean meat)	½ cup
☉ Hummus (1 carbohydrate + 1 high-fat meat)	¼ cup
Nut spreads: almond butter, cashew butter, peanut butter, soy nut butter (1 high-fat meat)	1 tbsp
Tempeh (1 medium-fat meat)	¼ cup
Tofu (4 oz) (1 medium-fat meat)	½ cup

Fats

Each serving from this list contains 0 grams carbohydrate, 0 grams protein, 5 grams fat and 45 calories.

Choose heart-healthy fats from the monounsaturated and polyunsaturated groups more often.

In general, a single serving of fat is:

- 1 teaspoon of regular margarine, vegetable oil or butter
- 1 tablespoon of regular salad dressing

Unsaturated Fats

Monounsaturated Fats	Serving Size
Avocado (medium, 1 oz)	2 tbsp
Nut butters (<i>trans-fat free</i>)	1 ½ tsp
Nuts	
Almonds, cashews	6
Macadamia	3
Peanuts	10
Pecans	4 halves
Oil (canola, olive, peanut)	1 tsp
Olives (black, ripe)	8 large
! Olives (green, stuffed)	10 large

Polyunsaturated Fats

Serving Size	
Margarine (lower-fat spread)	1 tbsp
Margarine (stick, tub or squeeze)	1 tsp
Mayonnaise (reduced-fat)	1 tbsp
Mayonnaise (regular)	1 tsp
Oil (corn, cottonseed, flaxseed, grape	1 tsp

seed, safflower, soybean, sunflower)	
! Salad dressing (reduced-fat)	2 tbsp
! Salad dressing (regular)	1 tbsp

Saturated Fats

Serving Size	
Bacon (cooked, regular or turkey)	1 slice
Butter	1 tsp
Cream (half and half)	2 tbsp
Cream cheese (reduced-fat)	1 ½ tbsp
Cream cheese (regular)	1 tbsp
Sour cream (reduced-fat or light)	3 tbsp
Sour cream (regular)	2 tbsp

Free Foods

Each serving from this list has 5 grams or less of carbohydrate and less than 20 calories per serving.

Eat up to 3 servings per day of the free foods in the serving size noted without counting any carbohydrates. Choices listed without a serving size can be eaten whenever you like. For better blood sugar control, spread your servings of these foods over the day.

Low-carbohydrate Foods

Serving Size	
Cabbage (raw)	½ cup
Gelatin (sugar-free or unflavored)	free
Gum	free
Jam or jelly (light or no sugar added)	2 tsp
Salad greens	free
Sugar substitutes (low-calorie sweeteners)	free

Modified-fat Foods

Serving Size	
Cream cheese (fat-free)	1 tbsp
Creamers (nondairy, liquid)	1 tbsp
Creamers (nondairy, powdered)	2 tsp
Salad dressing (fat-free or low-fat)	1 tbsp
Salad dressing (fat-free Italian)	2 tbsp

Condiments

Serving Size	
Barbecue sauce	2 tsp
Catsup (ketchup)	1 tbsp
Mustard	free
! Pickles (medium size dill)	1 ½
Salsa	¼ cup
Taco sauce	1 tbsp
Vinegar	free

Drinks/Mixes

! Bouillon, broth, consommé	free
Carbonated or mineral water, club soda	free
Coffee or tea	free
Diet soft drinks or sugar-free drink mixes	free

Seasonings

Flavoring extracts	free
Garlic	free
Herbs (fresh or dried)	free
Nonstick cooking spray	free
Spices	free

Worcestershire sauce	free
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Combination Foods

Combination foods contain foods from more than one food list, but with the help of an RD you can fit these foods into your meal plan.

Entrees

Serving Size	
! Casserole type:	1 cup
Tuna noodle, lasagna, macaroni and cheese, 8 oz (2 carbohydrates + 2 medium-fat meats)	

Frozen Meals

Serving Size	
! ☉ Burrito (beef and bean, 5 oz) (3 carbohydrates + 1 lean meat + 2 fats)	1
! Pizza (cheese/vegetarian, thin crust) ¼ of a 12-inch pie (2 carbohydrates + 2 medium-fat meats)	

Soups

Serving Size	
! Bean, lentil, or split pea (1 carbohydrate + 1 lean meat)	1 cup
! Tomato (made with water) (1 carbohydrate)	1 cup

Alcohol

In general, 1 alcohol equivalent has about 100 calories. One alcohol equivalent is 12 oz beer or 1 ½ oz distilled spirits or 5 oz wine. If you choose to drink alcohol, limit it to 1 drink or less per day if you are a woman and 2 drinks or less per day if you are a man.

These Food Lists are not intended to be all inclusive. Consult with your RD about any foods that you eat which are not listed.

Sample Meal Plan: Pulling the Food Lists Together

The table below shows sample meal plans, by numbers of servings, for different calorie requirements. Ask your RD, CDE, or healthcare provider which plan may work best for you. Each plan provides about half of its calories from carbohydrates and less than 25% of calories from fat, based on choosing fat-free milk and low-fat meats (Lean Meat Group) and cheeses.

Calories per day*					
	1200	1600	1800	2000	2200
Carbohydrates					
Starches	5	7	8	9	10
Fruits	3	3	3	4	4
Milk	2	3	3	3	3
Sweets, Desserts, & Other Carbohydrates †					
Nonstarchy Vegetables	3	4	5	6	6
Meat & Meat Substitutes	4 oz	6 oz	6 oz	7 oz	8 oz
Fats	3	5	6	6	7

* The numbers included in the chart are individual servings from each food list.

† Consult with an RD about how to substitute foods from the Sweets, Desserts, and Other Carbohydrates list with other carbohydrate-containing foods as associated calorie content may be higher.

Carbohydrate Counting

Carbohydrate (starch and sugar) is the main nutrient in food that raises blood sugar. When you plan meals based on carbohydrate counting, count only the foods that contain carbohydrates. Calculate the carbohydrate grams or choices using the bolded carbohydrate numbers at the top of each food list. If you are using a packaged food with a Nutrition Facts label, count the number of "Total Carbohydrate" grams based on the serving size listed on the label.

• TO CALCULATE CARBOHYDRATE CHOICES:

- Divide the number of grams of total carbohydrates
- by 15 (because 1 carbohydrate choice = 15 grams of carbohydrate).
- Total carbohydrates = 22g
- 22 divided by 15 = 1.5
- So, 8 crackers = 2 carbohydrate choices

Food Groups	Grams of Carbohydrate per Serving
Starches	15
Fruits	15
Milk	12
Nonstarchy Vegetables	5
Sweets, Desserts, Other Carbohydrates	varies
Meat and Protein Sources	0
Fats	0
Free Foods	< 5
Combination Foods	varies

Nutrition Facts	
Serving Size 8 crackers (28g)	
Amount per serving	
Calories 120	Fat Calories 30
% Daily Value	
Total Fat 3.5g	5%
Saturated Fat 1g	5%
Trans Fat 0g	
Polyunsaturated Fat 1.5g	
Monounsaturated Fat 0.5g	
Cholesterol 0mg	0%
Sodium 140mg	6%
Total Carbohydrate 22g	7%
Dietary Fiber less than 1g	3%
Sugar 7g	
Protein 2g	
Vitamin A 0%	Vitamin C 0%
Calcium 10%	Iron 4%

Check the serving size: 8 crackers. Is that how much you plan to eat?

This number (28g) is the weight of the crackers, not the amount of carbohydrates in the serving.

Count total carbohydrate.

You do not need to count sugar separately because it is already counted as part of the total carbohydrate.

• How much carbohydrate do you need?

- Your RD can help decide how much carbohydrate you need. The amount depends on your age, weight, activity, and diabetes medications, if needed.
- It's important to know that...
- **1 carbohydrate choice = 15 grams carbohydrate.**
- **Women** often need about 45-60 grams carbohydrate (3-4 choices) at each of 3 meals and 15 grams carbohydrate (1 choice) for snacks as needed.
- **Men** often need 60-75 grams carbohydrate (4-5 choices) at each of 3 meals and 15-30 grams carbohydrate (1-2 choices) for snacks as needed.