

Diabetes: Healthy Meal Planning

This handout will help you decide how much and what types of foods to eat throughout the day when you have diabetes.

Foods we eat and drink have carbohydrates, proteins, and fats.

About carbohydrates

Carbohydrates are found in grains, starchy vegetables, beans, lentils, fruit, milk, yogurt, and sugar (molasses, honey, table sugar, juice, pop, syrup).

Choose a variety of foods with carbohydrate every day to help you get the vitamins and minerals you need.

Foods with carbohydrates have a bigger effect on blood sugar than other foods. Since these foods raise your blood sugar, it's important to spread them over the day.

About proteins and fats

Proteins include foods like meat, fish, poultry, dairy products, and legumes (dried cooked beans, peas, lentils and soy products like tofu). They are mainly found in the Meat and Protein Alternatives food list (page 6) and the Milk and Alternatives food lists (page 4).

Protein foods don't directly raise blood sugars.

Fats are mainly found in higher fat meat and dairy products, oils, nuts and seeds, butter, margarines, fried foods, chocolate, and snack foods like chips, and store-bought baked products. Foods higher in fat are listed on page 7.

Fat doesn't raise blood sugar. However, too much fat in your diet may affect how well your insulin works.

Tips for healthy meals

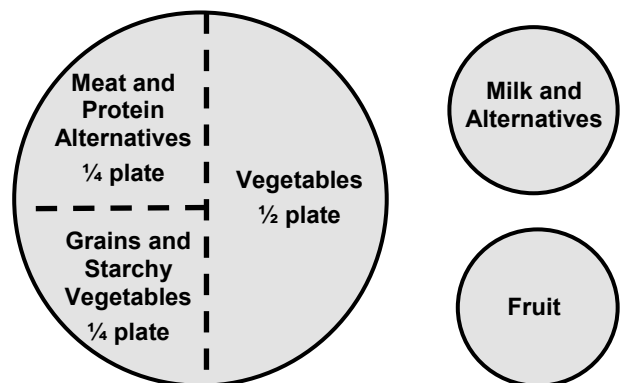
The tips below can help keep your blood sugars from rising too high after eating. They may also help you feel full longer after eating, which can help you manage portion sizes.

- Eat 3 meals each day.
- Include snacks if they help you eat smaller portions at your next meal.
- Choose higher fibre carbohydrate foods like whole grains, vegetables, fruit, beans, peas, and lentils. Try to eat 25–50 grams of fibre each day.
- Choose lean proteins and healthier fats.

The food lists on pages 3–7 can help you make healthy choices.

A meal that looks like the one below can help you to spread carbohydrate over the day.

- Put grains and starchy vegetables on $\frac{1}{4}$ of your plate. Some starchy vegetables are potatoes, yams, corn, squash, parsnips, and legumes.
- Put Meat and Protein Alternatives on $\frac{1}{4}$ of your plate.
- Cover $\frac{1}{2}$ your plate with vegetables.
- Plan for fruit as part of some of your meals or snacks. See page 4 for suggested serving sizes.
- Have Milk and Alternatives with some of your meals or snacks. One serving is 1 cup (250 mL) of milk or $\frac{3}{4}$ cup (175 mL) of yogurt.
- Choose small amounts of healthy fats.



The next page shows how to count carbohydrates, which can also help you manage your diabetes.

Available carbohydrate

Carbohydrates include sugar, starch, and fibre. Fibre does not raise your blood sugar. Sugar and starch are *available carbohydrates* because they do raise your blood sugar.

When you know the amount of available carbohydrate in your meal or snack, you can meet your carbohydrate goals (see the table in the next column). This will help you manage your blood sugars.

Steps to find the available carbohydrate in foods:

1. Measure the food you eat using measuring cups or a food scale.
2. Look at the Nutrition Facts table on packaged food.

Find the **serving size**.
If you eat more or less than this, adjust the nutrient amounts.

Find the grams of **carbohydrate** in 1 serving.

Find the grams of **fibre** in 1 serving.

Nutrition Facts	
Per 3/4 cup (30 g)	
Amount	% Daily Value
Calories 110	
Fat 1 g	2 %
Saturated 0.2 g + Trans 0 g	1 %
Cholesterol 0 mg	
Sodium 261 mg	11 %
Carbohydrate 22 g	7 %
Fibre 5 g	20 %
Sugars 4 g	
Protein 3 g	
Vitamin A	0 %
Vitamin C	0 %
Calcium	2 %
Iron	30 %

If there's no Nutrition Facts table, use the food lists in this resource, cookbooks, or phone or tablet apps.

3. Find the available carbohydrate in your food.

<p>Grams of carbohydrate – Grams of fibre = Grams available carbohydrate</p>

For example, in the Nutrition Facts table above:

$$22 \text{ grams carbohydrate} - 5 \text{ grams fibre} = 17 \text{ grams of available carbohydrate}$$

If the table lists sugar alcohols, subtract the sugar alcohols *and* fibre from the carbohydrate.

Carbohydrate choices

A *carbohydrate choice* is the amount of a certain food that has about 15 grams of available carbohydrate.

For example, a 1/3 cup serving of cooked brown rice has about 15 grams of available carbohydrate. So, 1/3 cup of brown rice is 1 carbohydrate choice.

Using carbohydrate choices helps you:

- know how much carbohydrate you're eating
- know how much carbohydrate food to eat at your meals or snacks, according to your carbohydrate goals

The food lists on the next pages tell you what 1 carbohydrate choice is for many different foods.

How much carbohydrate do I need in a day?

Everyone needs a different amount of carbohydrate. A dietitian can help you find the amount that's right for you. Two examples are below.

	Grams of carbohydrate	Number of carbohydrate choices
Smaller carbohydrate goals		
At each meal	30–60 grams	2–4 choices
At each snack	0–15 grams	0–1 choice
Larger carbohydrate goals		
At each meal	60–90 grams	4–6 choices
At each snack	0–30 grams	0–2 choices

My carbohydrate goals:

At each meal: _____ grams or _____ choices


At each snack: _____ grams or _____ choices

Use the food lists on the next pages to create your meals and snacks.

Carbohydrate goals are different in pregnancy. If you are pregnant or planning to get pregnant, talk with your dietitian about your needs.

Carbohydrate choices

The food lists below tell you how much food is 1 carbohydrate choice.

Note: Foods with a salt shaker  are higher in salt (sodium). Choose these foods less often.

Each carbohydrate choice has about 15 grams of available carbohydrate.

Your carbohydrate goals: _____ choices at each meal and _____ choices at each snack. Carbohydrate choices are listed on pages 3, 4, and 5.

Grains and Starchy Vegetables

Choose whole grain and higher fibre foods more often.

Choose more often


Grains:


bannock, whole grain, 1½ x 2½ inches (4 x 6 cm) baked
 barley or bulgur, ½ cup (125 mL) cooked
 bread, whole grain, 1 slice (30 grams weight)
 bun, hamburger or hotdog, whole grain, ½
 cereal, cold: bran cereals, ½ cup (125 mL)
 cereal, cold: oat O's, ⅔ cup (150 mL)
 cereal, cold: granola, ¼ cup (60 mL)
 cereal, hot, ¾ cup (175 mL)
 chapati, roti, whole grain, 1 (44 grams weight)
 English muffin, whole grain, ½
 millet, ⅓ cup (75 mL) cooked
 pancake or waffle, whole grain, 1 (4 inch or 10 cm)
 pasta, couscous, whole grain, ½ cup (125 mL) cooked
 pita bread, whole grain, ½ (6 inch or 16.5 cm)
 quinoa, ½ cup (125 mL) cooked
 rice, brown, ⅓ cup (75 mL) cooked
 rye crisps, 2–3 crackers (30 grams weight)
 tortilla, whole grain, 1 (6 inches or 15 cm) or ½ (10 inches or 25 cm)

Starchy Vegetables:

beans, lentils, peas, ½ cup (125 mL) dried and cooked, or canned
 corn, ½ cup (125 mL)
 mushrooms, shitake, 1 cup (250 mL) cooked
 parsnips, ¾ cup (175 mL)
 peas, 1 cup (250 mL)
 plantain, mashed, ⅓ cup (75 mL)
 potatoes, ½ medium (84 grams weight) boiled or baked
 potatoes, ½ cup (125 mL) mashed
 squash: acorn, butternut, hubbard, ¾ cup (175 mL)
 sweet potato or yam, ⅓ cup (75 mL) mashed
 sweet potato or yam, ½ cup (125 mL) baked and cubed

Choose less often

bagel, ¼ large or ½ small
 bread, white, 1 slice (30 grams weight)
 bun, hamburger, or hotdog, white, ½
 cereal, not whole grain, ½ cup (125 mL)
 chapati, roti, white, 1 (44 grams weight)
 French fries, 10 
 granola bar, oatmeal, 1 bar (28 grams weight)
 muffin, plain, ½ small (25–28 grams weight)
 naan, white, ⅓ (10 inches or 25 cm), 30 grams weight

pancake or waffle, 1 (4 inch or 10 cm)
 pasta, couscous, white, ½ cup (125 mL) cooked
 pita bread, white, ½ (6 inch or 15 cm)
 pizza crust, 1/12 (12 inch or 30 cm)
 rice, white, ⅓ cup (75 mL) cooked
 rice, converted/parboiled, ⅓ cup (75 mL) cooked
 soda crackers, 7
 taco shells, 2 (5 inch or 13 cm) 

Carbohydrate choices

The lists below tell you how much food is 1 carbohydrate choice.

Each carbohydrate choice has about 15 grams of available carbohydrate.

Your carbohydrate goals: _____ choices at each meal and _____ choices at each snack. Carbohydrate choices are listed on pages 3, 4, and 5.

Fruit	
Choose fresh, frozen, or canned fruit with no added sugar.	
● Choose more often	
apple, 1 medium	mango, ½ medium or ½ cup (125 mL)
applesauce, unsweetened, ½ cup (125 mL)	melon, 1 cup (250 mL)
banana (4 inch or 10 cm), 1 small	nectarine, 1 large
blackberries, 2 cups (500 mL)	orange, 1 medium
blueberries, 1 cup (250 mL)	peach, 1 large
cherries, 15	pear, 1 small
fruit canned in juice, ½ cup (125 mL)	pineapple, fresh, ¾ cup (175 mL)
fruit canned in water, ¾ cup (175 mL)	plum, 2 medium
grapefruit, 1 small	pomegranate, ½ medium
grapes, 15	raspberries, 2 cups (500 mL)
kiwi, 2 medium	strawberries, 2 cups (500 mL)
mandarin orange (tangerine), 2 medium	
▽ Choose less often	
dried fruit:	fruit leather, 1 small (14 grams weight)
apricots, 8 halves	juice, unsweetened, ½ cup (125 mL)
cranberries, sweetened, 3 Tbsp (45 mL)	tomato juice, vegetable cocktail, 1½ cups (375 mL) 🍷
date, 1	
figs, 3	
raisins, 2 Tbsp (30 mL)	

Milk and Alternatives	
Make lower fat choices from this group more often.	
M.F. = Milk Fat	
● Choose more often	
milk, skim or 1%, 1 cup (250 mL)	fortified soy beverage, plain, 1 cup (250 mL)
evaporated milk, skim, canned, ½ cup (125 mL)	yogurt, less than 2% M.F., plain or no added sugar, ¾ cup (175 mL)
▽ Choose less often	
milk, 2% or 3.25% (homogenized), 1 cup (250 mL)	milk pudding, low fat, no added sugar, ½ cup (125 mL)
chocolate milk, 1%, ½ cup (125 mL)	yogurt or soy yogurt, less than 2% M.F., flavoured, with added sugar, ⅓ cup (75 mL)
fortified soy beverage, flavoured, ½ cup (125 mL)	

Carbohydrate choices

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Each carbohydrate choice has about 15 grams of available carbohydrate.

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Other Choices

Limit how many Other Choices you eat. These foods are higher in sugar and calories, and may be higher in fat and salt.

▽ Choose less often

brownie or cake, no icing, 2 inch (5 cm) square	ice cream, ½ cup (125 mL)
candies, hard, 5 small	jam, jelly, marmalade, 1 Tbsp (15 mL)
candies, licorice, 2 pieces	jam, syrup, no sugar added, 3 Tbsp (45 mL)
candies, jellybeans, 5 large	ketchup, 4 Tbsp (60 mL) 🍷
cookies, arrowroot, digestive, and gingersnap, 3	pretzels, low fat, 7 large or 30 sticks 🍷
cookies, chocolate chip, 2	popcorn, low fat, 3 cups (750 mL)
cookies, cream type filling, 2	potato chips, baked, 10 chips (1½ cups, 30 grams weight) 🍷
cranberry sauce, with added sugar, 2 Tbsp (30 mL)	sherbet, ⅓ cup (75 mL)
frozen yogurt, low fat, 1 cup (250 mL)	soft drink, regular (varies with flavor), ½ cup (125 mL)
honey, 1 Tbsp (15 mL)	sugar, syrup, molasses, 1 Tbsp (15 mL)



Foods with little or no carbohydrate

The foods listed on this page and the next page have little effect on blood sugars. Every day, including vegetables, meat and protein alternatives, and fats in your meals and snacks is important for health and for managing your diabetes. Check the healthy meal section on page 1 for ideas about portion sizes of vegetables and meat and protein alternatives.

Vegetables

Eat vegetables throughout the day. Cover ½ your plate with vegetables at most meals.

● Choose more often

artichoke	celery	onions
asparagus	chard	peppers
bean sprouts	cucumber	radish
beans (yellow or green)	eggplant	spinach
beets	kale	squash (pumpkin, spaghetti)
bok choy	kohlrabi	tomato, canned/stewed 
broccoli, rapini	leeks	tomato sauce 
Brussels sprouts	lettuce	tomatoes, fresh
cabbage, Chinese cabbage	mixed vegetables	turnips
carrots	mushrooms	zucchini
cauliflower	okra	

Meat and Protein Alternatives

Proteins are found in meat, fish, poultry, dairy products, eggs, and legumes (dried cooked beans, peas, lentils, and soy products like tofu). These foods have little or no carbohydrate.




Meat and Protein Alternatives that are leaner and have healthy fats are in the *Choose more often* group. Put meats and meat alternatives on ¼ of your plate.

For hard cheeses, use your thumb as a guide to 1 serving.






M.F. = Milk Fat

● Choose more often

beans, lentils, peas, dried and cooked, or canned (See the Starchy Vegetables list, page 3.)	meat, deli or processed, low fat 
cheese, lower fat, less than 20% M.F. 	meat or poultry, lean
cottage cheese, fat free or 1% M.F. 	meatless soy protein products (such as vegetarian ground round)
egg white	tofu, firm or soft
eggs	yogurt, Greek, plain, less than 2 % M.F.
fish, fresh or canned	

▽ Choose less often

cheese, regular, more than 20% M.F. 	poultry or cheese strips, breaded or seasoned 
meat, ground, medium or regular fat	wieners, sausages, and deli or processed meat, regular fat 

Foods with little or no carbohydrate

Fats

Choose small amounts of the fats from the *Choose more often* group.

All fats are high in calories. These foods have little or no carbohydrate.

For added fats like oils and margarine, use your thumb tip as a guide to 1 serving.



● Choose more often

avocado	oil: canola, olive, peanut	salad dressing, low fat
margarine, non-hydrogenated	olives, black or green	sour cream, light
mayonnaise, light	peanut butter, and other nut butters	tahini
nuts and seeds		

▽ Choose less often

bacon	mayonnaise, regular	tropical oils such as palm or coconut oil
beef gravy	salad dressing, regular	whipped topping, regular
butter	sour cream, regular	
cheese, spreadable, regular or light		

◆ Avoid trans fats, if possible

Read the ingredient lists on packaged foods for:

- hydrogenated and partially hydrogenated oils
- shortening

Trans fats are also found in:

- hard or block margarines
- store-bought baked goods

Extras

Extras are foods that are lower in calories and carbohydrates.

The foods below are very low in carbohydrate, so they don't need to be measured.

broth , bouillon , consommé	rhubarb
club soda, mineral water	sauces: chili sauce , fish sauce , soy sauce , Worcestershire sauce
coffee, tea	sugar-free gelatin, gum, soft drinks, or crystal drinks
herbs and spices, flavouring extracts	sugar substitutes
horseradish, 1 Tbsp (15 mL)	vinegar
mustard	
pickle, dill	

The foods below are extras if you eat the small servings listed.

barbecue sauce, 1 Tbsp (15 mL)	sour cream, fat free, 1 Tbsp (15 mL)
fruit spread, no sugar added, 2 tsp (10 mL)	steak sauce, 2 Tbsp (30 mL)
ketchup, 1 Tbsp (15 mL)	syrup, no sugar added, 1 Tbsp (15 mL)
oyster sauce, 1 Tbsp (15 mL)	tomato paste, 1 Tbsp (15 mL)
relish, sweet, 1 Tbsp (15 mL)	vinaigrette salad dressing, fat free, 2 Tbsp (30 mL)
salsa, ¼ cup (60 mL)	whipped topping, low fat, 2 Tbsp (30 mL)

Counting carbohydrate choices

Counting available carbohydrate in meals and snacks and using carbohydrate choices can help you meet your carbohydrate goals on page 2. Meeting your carbohydrate goals can help you manage your blood sugars. Use the sample meal below to practice counting grams of available carbohydrate and carbohydrate choices.

Food	Portion size	Grams of carbohydrate	Carbohydrate choices
Salmon	4 ounces (120 grams)	0	0
Brown rice	1 cup (250 mL)	45	3
Green beans	1 cup (250 mL)	0	0
Sliced tomatoes	½ cup (125 mL)	0	0
Pear	1 small	15	1
Milk, 1%	1 cup (250 mL)	15	1
Total		75 grams	5 choices

In the spaces below you can write what you ate and drank for 1 meal. Then, count the grams of carbohydrate and carbohydrate choices in your meal.

Total		_____ grams	___ choices

Next steps

This resource includes healthy eating choices that can help you manage your diabetes. Change can be hard, especially if we try to make too many changes at once.

When you're ready to make a change, it can help to set a goal, and then break your goal into small steps. You're more likely to reach your smaller goals.

Ask your healthcare provider if you'd like support with goal setting.



Do you have more questions?

Even when you've been meal planning for a while, you may still have questions. Talk to your dietitian about healthy eating for diabetes.