

To Have a Healthy Blood Sugar

- Eat the right foods at the right times. Don't skip meals.
- Try to eat each meal and snack at the same time every day.
- Read food labels to check serving sizes and carbohydrate content.
- Monitor portion sizes. The carbohydrate content of foods varies and the serving sizes may be different for different foods.
- Limit sweets and foods that are high in sugar (cakes, pies and sweetened beverages).
- Limit foods that are high in fat.
- Select carbohydrate foods that are also high in fiber such as whole grains, fruits and vegetables.
- Be active and exercise.
- Take your medicine.

For more information on carbohydrate counting and healthy eating habits, or to schedule an appointment with a dietitian, please call:

Bronson Diabetes Education Center
(269) 341-8585

or

Bronson Outpatient Nutrition Services
(269) 341-6860

Additional Resources

www.eatright.org

www.diabetes.org

www.mypyramid.gov

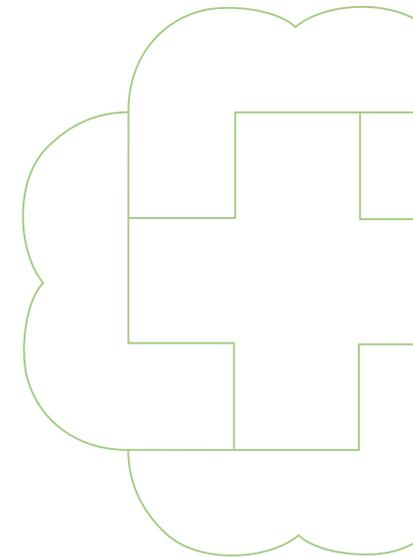
www.usda.gov

www.ndep.nih.gov

Bronson Methodist Hospital
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(269) 341-7654

bronsonhealth.com

How To Count Carbohydrates



Carbohydrate Counting

Consistent carbohydrate counting provides the best nutrition for people with diabetes.

If you have diabetes, your body may not be making enough insulin. Or, it may not be able to use the insulin it is making. Insulin helps keep the amount of sugar in your blood normal. Without enough insulin, the amount of sugar in your blood increases. When this happens, you may need insulin or a medicine that increases your body's own insulin.

Eating too many foods that contain carbohydrates may cause high blood sugar. You need to eat the right amount of foods with carbohydrates during meals and snacks. This helps control blood sugar levels.

Why Count Carbohydrates?

Healthy meals include a mix of carbohydrates, proteins and fats. Each of these provides energy or calories. Carbohydrates increase your blood sugar the most. Counting the foods that have carbohydrates is a simple way to plan your meals.

You may select from many foods to meet your carbohydrate needs. Then, choose other foods such as vegetables, meats, salads and sugar-free foods to achieve a balanced diet.

What Foods Have Carbohydrates?

Grains: bread, rice, cereal, pasta, crackers

Fruits: fresh, canned or dried fruit, fruit juice

Starchy vegetables: peas, corn, potatoes, sweet potatoes, dried beans, legumes

Milk: milk, yogurt

Sweets: jam, jelly, ice cream, cakes, cookies, desserts, regular pop, syrup, sugar

Your Meal Plan:

Your doctor has ordered a consistent carbohydrate counting diet for you. We will help you make choices that meet your meal plan.

	Low Energy 1200-1500 calories	Average Energy 1600-2000 calories	High Energy 2100-2400 calories	Very High Energy 2500-3000 calories
Total grams of carbohydrate per day	165-210	210-270	285-315	330-450

Meal Plan Grams of Carbohydrate per Meal

Breakfast	45	45-75	75-90	90-120
Lunch	45-60	60-75	90	90-135
Dinner	60-75	75-90	90-105	105-135
Bedtime Snack	15-30	30	30	45

Meal Times and Ordering

The time that you eat your meals and snacks is important to control your blood sugar. Your meals may need to be timed with when you take your diabetes medicine, especially if you are taking insulin.

Once you choose your meal, call Food and Nutrition Services at 341-6363. Your meal will be sent to your room within 45 minutes. Please call your nurse when your tray arrives. Do not eat until the nurse says it is OK.

When you order your meal, you may also order a bedtime snack. Your nurse will have this available for you.

The number of carbohydrate grams is listed next to each menu item below.

Sample Breakfast: Carbohydrate Grams

Pancakes	(30g)
Diet syrup	(0g)
Light yogurt: peach	(15g)
Juice: orange	(15g)
Total	(60g)

This meets an average energy meal plan with 60 grams of carbohydrates for breakfast.

Lift for carbohydrate servings

Carbohydrate Counting

Each food choice listed equals 15 grams of carbohydrates or one carbohydrate choice.

Food Group Serving Size

Grains/Starchy Vegetables:

Bagel	1/2 small
Baked beans	1/2 cup
Beans (pinto, kidney)	1/2 cup
Bread	1 slice
Cereal (cooked)	1/2 cup
Cereal (dry, unsweetened)	3/4 cup
Cereal (dry, sweetened)	1/2 cup
Corn	1/2 cup
Dinner roll	1 small
English muffin	1/2
French toast	1 slice
Pancakes	2 (4")
Pasta (cooked)	1/3 cup
Peas (green)	1/2 cup
Potato (baked)	1 small
Potato (mashed)	1/2 cup
Rice (cooked)	1/3 cup
Tortilla	6" piece
Waffle	4 1/2" piece

Fruit/Juice:

Apple	1 small
Applesauce (unsweetened)	1/2 cup
Banana	1/2 medium
Berries	1 cup
Canned fruit (in juice or water)	1/2 cup
Dried fruit	1/4 cup
Grapefruit	1/2 medium
Grapes	12-15
Juice (apple, orange)	1/2 cup
Juice (cranberry, grape)	1/3 cup
Melon (cubes)	1 cup
Orange	1 medium

Milk/Yogurt/Milk Substitutes:

Chocolate milk	4 oz
Milk	8 oz
Rice dream, enriched	6 oz
Soy milk	8 oz
Yogurt (plain)	8 oz
Yogurt (flavored, regular)	4 oz
Yogurt (flavored, light)	6-8 oz

Sweets/Snacks:

Animal crackers	8
Chips	10-15
Cookie (sandwich)	2 small
Crackers	4-5
Fruit snacks	1 pouch
Goldfish crackers	55
Graham crackers	3 squares
Ice cream	1/2 cup
Jam/Jelly (regular)	1 tbsp
Popcorn	3 cups
Popcorn (microwave)	1/2 bag
Pretzels	15
Pudding (regular)	1/4 cup
Pudding (sugar-free)	1/2 cup
Rice crispy bar	2" x 2" square
Sport drink	1 cup
Syrup, honey, sugar	1 tbsp

Combination Foods:

Chili (with beans)	1 cup
Fish (breaded)	6 sticks
Macaroni and cheese	1/2 cup
Pasta or potato salad	1/2 cup
Soup (bean, noodle)	1 cup
Soup (cream)	1 cup

Fast Food:

BBQ or honey sauce	1 packet
Pizza (thin crust)	1/8 of 10"
Taco (with or without meat)	1

More Choices

The list below has examples of foods equal to 30 or 45 grams of carbohydrates. This is equal to two to three carbohydrate choices.

30 Grams of Carbohydrates or Two Choices

Brownie	2" square
Burrito (meat)	7" long
Cereal bar	1
Chicken tenders	4
Doughnut (glazed)	1
French fries	1 small
Grilled cheese sandwich	1
Grilled chicken sandwich	1
Hamburger bun	1
Hot dog bun	1
Lasagna	3" x 4" piece
Meat and cheese sandwich	1
Pizza (thick crust)	1/8 of 10"
Spaghetti (with meatballs)	1 cup
Toaster pastry	1

45 Grams of Carbohydrates or Three Choices

Burrito (bean)	7" long
Fried chicken sandwich	1
Fried fish sandwich	1
Peanut butter and jelly sandwich	1
Sub sandwich	6" long

Free Foods

Coffee	Mustard
BBQ sauce	Sugar-free popcicle
Broth	Sugar-free gelatin
Ketchup	Tea
Diet soda	Water
Diet syrup	
Diet jelly	

What About Protein?

Most protein food sources do not contain carbohydrates. Protein does not increase the blood sugar like carbohydrates do. Protein in your meal can also help you feel full. Foods that are a good source of protein include:

- meat, fish and poultry without extra fat and skin
- low-fat cheese and eggs
- soy products and nuts

What About Non-Starchy Vegetables?

Non-starchy vegetables such as broccoli, cauliflower, carrots, green beans, lettuce and tomatoes have minimal carbohydrates.

Three 1/2 cup servings at one meal equal one carbohydrate choice.

Free Foods

Free foods have five or less grams of carbohydrates and less than 20 calories per serving. They do not have a big effect on blood glucose levels. However, if too much of a free food is eaten, it will need to be counted.

What About Sweets and Sugar?

You may eat foods with sugar if you count the carbohydrates. Foods high in sugar often do not contain many vitamins, minerals or fiber. Choose these foods in small amounts.

What Are Carbohydrate Choices?

One carbohydrate choice is equal to 15 grams of carbohydrates. Some people prefer to count carbohydrate choices instead of grams.

15 grams = 1 carbohydrate choice
30 grams = 2 carbohydrate choices
45 grams = 3 carbohydrate choices
60 grams = 4 carbohydrate choices
75 grams = 5 carbohydrate choices
90 grams = 6 carbohydrate choices

Conversion Guide

Carbohydrate grams can be changed to the number of carbohydrate choices by using the table below.

Conversion Table	
Carbohydrate Grams (g)	Carbohydrate Choice
0-5	0
6-10	1/2
11-20	1
21-25	1 1/2
26-35	2
36-40	2 1/2
41-50	3
51-55	3 1/2
56-60	4

Label Reading

The grams of carbohydrates in packaged foods is listed on the label.

Nutrition Facts

Serving size 1 packet instant oatmeal prepared with water (149 g)

Amount Per Serving

Calories 130

Calories from Fat 13

	% Daily Value*	
Total Fat	1 g	2%
Saturated Fat	0.2 g	1%
Cholesterol	0 mg	0%
Sodium	165 mg	7%
Total Carbohydrate	26 g	9%
Dietary Fiber	3 g	11%
Sugars	12 g	
Protein	3 g	

Vitamin A	21%	Vitamin C	0%
Calcium	11%	Iron	21%

This serving of instant oatmeal contains 26 grams of carbohydrates when cooked with water. If you cook it with one cup of milk, you will add 15 grams of carbohydrates. This is about 40 grams of carbohydrates or three carbohydrate choices.