



Healthy Eating with Diabetes



Eating Well With Diabetes

When to eat

Eating at regular times will help prevent low blood sugar (hypoglycemia). Don't skip or delay meals.

- Plan meals with fiber-rich foods such as whole grains or beans, lean protein, and vegetables to control hunger between meals. This helps reduce overeating later.
- Snacks aren't required, but you can eat small healthy snacks if you're hungry or need to prevent low blood sugar.

What to eat

You don't need special food because you have diabetes. Use the plate method to plan healthy meals. Choose healthy carbohydrate (carb) foods, keep protein choices lean and lower in fat, eat plenty of nonstarchy vegetables, and drink water.

- Limit or avoid sugars, refined carbs, and fatty foods.
- Choose high-fiber, heart-healthy foods. Fiber helps keep your blood sugar in control.

The healthy food choices that help your diabetes are beneficial for everyone in your family.

Each day, eat a variety of these foods:

- Whole fruits and vegetables
- Beans, peas, and whole grains like brown rice, quinoa, oatmeal, or whole-wheat bread
- Protein, including fish, poultry (no skin), soy, lean meats, lower fat cheese, or nuts
- Milk, plant-based milk, or Greek or other yogurt with no sugar added
- Heart-healthy fats and oils, such as olive or avocado oil

Limit or avoid sugary drinks, sweets, baked goods, snack chips, and fried or fast foods.

How much to eat

If you eat too much, especially too many foods high in carbs, your blood sugar may get too high. If you eat smaller amounts and spread your meals throughout the day, you can control your blood sugar better and feel healthier.

If one of your goals is to lose weight, losing just 5 percent of your weight—10 pounds if you weigh 200—can help your body and improve blood sugar. It also lowers your risk of heart disease and lowers blood pressure.

What should I know about carbs?

Your body turns most of the carbs you eat into sugar (glucose). When you have diabetes, more sugar stays in your blood so it's not used for energy. Eating healthy carbs, spread through your day in small-medium portions, helps with blood sugar management.

- If you eat too many carb foods overall, or too much at once, your blood sugar can rise too high.
- If you take insulin or medications such as glipizide, eating too few carbs can put you at risk for low blood sugars. Work with your dietitian or diabetes team to understand the right amount of carbs for you.

How many carbs should I eat?

Your target range of carbs per meal depends on a variety of factors, including your body's calorie needs, your activity level, and your recommended medication plan.

To understand your carbohydrate targets, ask your doctor for a referral to a registered dietitian.

What foods contain carbs?

Each of these foods contain about 15 grams of carb:

- Small fresh fruit or ½ cup fruit
- ⅓ cup cooked rice or pasta
- ½ cup peas, corn, beans, potatoes, oatmeal, or other cooked grains
- 1 slice bread or 1 small tortilla
- 1 cup milk or 6 to 8 oz plain or Greek yogurt

Sweets and desserts, chips, crackers, and fried foods usually contain a lot of carbs and fats but not much nutrition. You can eat small servings of these as an occasional special treat.

Why should I read food labels?

Reading food labels helps you learn more about the food's carb content and other nutrients.

Check total carb grams and serving size to learn how this food fits into your carb goals. Note that the sugar grams are already included in the total carb grams.

Other tips for healthy foods include choosing those with:

- More fiber, vitamins, and minerals.
- Less saturated fat, sodium, added sugars, and trans fat.

How do I eat healthier?

A good place to start is to limit less healthy carbs like candy, sodas, or desserts. An easy, stress-free way to help you plan meals without calculating or measuring is the diabetes plate method. All you need is a 9-inch plate and aim for:

- $\frac{1}{2}$ plate of salad or nonstarchy vegetables
- $\frac{1}{4}$ plate of grains, beans, starchy vegetables, or fruit
- $\frac{1}{4}$ plate of protein such as chicken or tofu
- drinking mostly water or calorie-free beverages

Limit desserts and sweets. Have fruit as a healthy dessert option.

What else can I do?

There's no one-size-fits-all diet for diabetes. Choose foods that work best for you so you can maintain these changes for a healthier you.

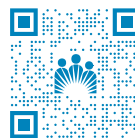
Healthy eating is just one part of caring for your health and diabetes. Staying physically active and managing stress is important too.

Make a small change today to make a big difference.

Learn more

For more healthy eating resources:

- Visit Living Well With Diabetes: kpdoc.org/diabetes.
- Download our **My Doctor Online app** to receive personalized health reminders, manage appointments, and more.



- Call our Wellness Coaching Center:

kpdoc.org/wellnesscoaching

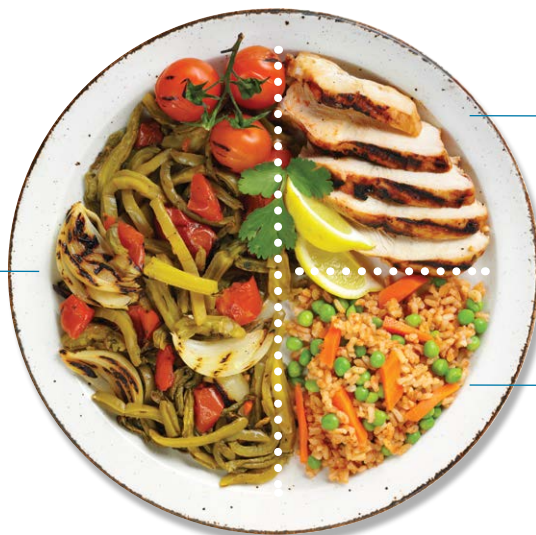
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Let's practice the plate method!

9-inch plate

$\frac{1}{2}$ plate
nonstarchy
vegetables



$\frac{1}{4}$ plate
protein

$\frac{1}{4}$ plate carbohydrate
foods like whole
grains, beans, starchy
vegetables, fruit



water or 0 calorie drink

This information is not intended to diagnose or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor. Some photos may include models and not actual patients.

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Easy to follow guidelines for people with diabetes

- There is no diabetic diet.
- Follow “plate” guidelines for lunch/dinner:
 - ½ plate non-starchy vegetables/salad
 - ¼ plate lean protein
 - ¼ plate complex carbohydrates
- Don’t avoid carbs.
 - Choose smaller portions.
- Choose complex carbs (those with fiber).
 - Brown rice instead of white rice.
- Have 3 meals and 1-2 snacks per day, eating every 4-5 hours (Eating every 2 hours is not necessary.)
- Avoid snacking after dinner.
- Don’t drink your calories; avoid juices, sodas, sweetened beverages, etc. Instead, focus on water and unsweetened beverages.
- Diabetes medications will help control diabetes - medications do not work alone, diet and exercise are important (Refer to your care team as medication recommendations may vary.)
- Test blood sugars 1-2 x day (fasting and before dinner or at bedtime) even when blood sugars are well controlled. (Refer to your care team as suggested frequency may vary.)
- Exercise regularly – 4-5 x week, 30-60 minutes per day. Start slow and increase gradually. Try to be active for 15-20 minutes after meals when possible.



Plan out your meals

Choose from each column to create a balanced meal. Be creative and maintain variety in your diet to keep your taste buds happy!

Carbohydrate (Choose whole grain)	Nonstarchy vegetables	Protein (Choose lean protein sources)
Following 30 gm per meal → Pick two items below Following 45 gm per meal → Pick three items below	At least half your plate for lunch & dinner	Choose 2-4 ounces (3 ounces = size of deck of cards)
■ Barley, cooked 1/3 cup ■ Beans, cooked 1/2 cup ■ Bread* - whole grain/whole wheat, 1 slice ■ Brown rice, cooked 1/3 cup ■ Bun* - whole wheat hot dog/hamburger, 1/2 ■ Chapati*, 1 six inch/ Naan, 8" x 2" ■ Lentils, cooked 1/2 cup ■ Milk- non-fat/ 1% Skim, 1 cup/ 8 ounces ■ Pasta* - whole grain, cooked 1/3 cup ■ Peas/corn, 1/2 cup ■ Potato/sweet potato 1/2 cup ■ Quinoa, cooked 1/3 cup ■ Tortilla* - corn tortilla*, 6 inch ■ Tortilla* -whole wheat flour *, 1/3 of a 10 inch ■ Yogurt - plain non-fat Greek, 2/3 cup ■ Fruit: — 1/2 Banana — Small apple, pear, orange, ~1 cup — 2 Tbsp Dried fruit — 1 cup of raspberries, black berries — 1 cup melon — 15 grapes	■ Artichoke hearts ■ Asparagus ■ Bell pepper ■ Bok choy ■ Broccoli ■ Brussel sprouts ■ Cabbage ■ Carrots ■ Cauliflower ■ Celery ■ Chard ■ Collard greens ■ Cucumber ■ Eggplant ■ Green beans ■ Mushroom ■ Mustard greens ■ Onion ■ Snap peas ■ Pepper ■ Salad greens/ spinach/ lettuce/ kale ■ Tomato ■ Zucchini	■ Beef, lean (1 x weekly) ■ Chicken breast, remove the skin ■ Cottage cheese - low-fat/non-fat ■ 1 Egg or 2 egg whites (= 1 ounce) ■ Fish ■ Lamb ■ Nuts ■ Oysters ■ Paneer ■ Parmesan ■ Peanut butter/almond butter ■ Pork ■ Sardines ■ Sausage ■ Tempeh ■ Tofu ■ Tuna ■ Turkey breast

* look for items with ≥ 3 grams of fiber/serving



Easy to Prepare Meals for People with Diabetes

These ideas are for ~45 grams of carbohydrate per meal.

- You can remove one carb serving (15 grams) to reduce meals to 30 grams.
- You can add one carb serving (15 grams) to increase meals to 60 grams.
- Choose higher fiber options (at least 3 grams/serving). Daily goal: 25-38 grams fiber/day

Breakfast



- 2 slices of whole wheat toast with 2 Tbsp peanut/almond butter, 8oz nonfat/1%/soy milk.
- Whole wheat English muffin with 1 oz low fat cheese, 8 oz nonfat/1% milk.
- Oatmeal - add 2 tablespoons of chopped nuts and $\frac{3}{4}$ cup frozen berries to 1 cup cooked oatmeal. Add cinnamon and vanilla for extra flavor.
- Spread $\frac{1}{2}$ cup beans and $\frac{1}{2}$ cup of low fat shredded cheese on 2 corn tortillas (6-inch). Consider adding sautéed non-starchy vegetables such as spinach, onions, bell peppers, and mushrooms.
- $\frac{1}{4}$ cup of egg substitute with sautéed spinach, onions, and peppers, eat with 2 slices of whole wheat toast or 2 6-inch corn tortillas. Add a glass of nonfat/1%/soy milk.
- A parfait of 1 cup of plain non-fat Greek yogurt, $\frac{1}{2}$ cup of berries and $\frac{1}{2}$ cup of bran flakes.
- 2 small whole grain frozen waffles (with at least 3 grams of fiber). Spread 2 Tbsp of peanut/nut butter and top with $\frac{3}{4}$ cup blueberries.
- Top 1 frozen 100% whole wheat waffle with $\frac{1}{4}$ - $\frac{1}{2}$ cup non-fat cottage cheese and $\frac{1}{2}$ cup canned peaches (diet or canned in water). Enjoy with 1 cup (8oz) nonfat/1% milk.

- Breakfast burrito with 6" whole wheat tortilla, 1 egg (or two egg whites), ½ cup pinto or black beans, 1-ounce low fat cheese and salsa. Consider adding sauteed non-starchy vegetables such as spinach, onions, bell peppers, mushrooms, etc.
- Whole grain English muffin with 2 Tbsp low fat cheese and 1 cup fat free/1%/soy milk.
- Toast 2 slices 100% whole wheat bread, spread 2 Tbsp peanut butter and ¼ of a banana on each slice of toast.
- Toast 2 slices of raisin bread, top with 1/2 cup low fat cottage cheese.
- One packet instant plain oatmeal, 2 Tbsp raisins and 6oz nonfat Greek / light yogurt.
- 1 cup whole grain Cheerios, ¾ cup fat free or 1% soy milk and ½ small banana.
- 1 cup Wheaties, ¾ cup fat free or 1% soy milk and 1 cup frozen or fresh blueberries.
- Spread 2 Tbsp natural peanut butter on ½ whole wheat English muffin (or 1 mini or ¼ regular whole grain bagel). Add slices from ½ a small apple to make a bagel/muffin sandwich.
- Enjoy ½ whole grain bagel with 2 Tbs peanut butter with 8oz nonfat/1%/soy milk.
- Whole wheat English muffin with 1 oz cheese, and a small fruit.
- 2 corn tortilla (6 inch) with ½ cup beans and ¼ cup of low fat shredded cheese.
- ¼ cup of egg substitute with sautéed spinach, onions, and peppers, 2 slices of whole wheat toast and a small orange.
- A parfait of 1 cup of plain non-fat Greek yogurt, ½ cup of berries and ½ cup of bran flakes (or other high fiber cereal).
- Toast two slices of whole grain bread. Top with avocado and egg whites. 8oz nonfat/1%/soy milk.

Lunch



- Large salad with $\frac{1}{2}$ cup of cooked beans, $\frac{1}{2}$ c corn, 3 oz of fish/chicken, and vinaigrette. Small piece of fruit.
- Sandwich on 2 slices of whole wheat bread, mustard, 2 oz chicken, turkey, tuna, or egg. Add lettuce, tomato, cucumber, sprouts. 8 oz nonfat/1%/soy milk.
- 1 cup of homemade bean or lentil soup with $\frac{1}{2}$ sandwich on whole wheat bread.
- 1 cup dal with 1 6-inch roti + 2 cups non-starchy vegetable subji.
- 2 whole wheat chapatis with meat or paneer topped with a drizzle of plain non-fat Greek yogurt and non-starchy vegetable curry.
- 6oz Greek nonfat/light yogurt with $\frac{1}{4}$ c granola, 1 slice of whole wheat bread with 1 Tbsp of natural peanut/almond butter. Have carrots, peppers, and cherry tomatoes on the side.
- 2 whole wheat pita halves with $\frac{1}{4}$ cup of tuna and mixed veggies, 1 cup of mixed fruit.
- Medium sized baked potato (6oz) topped with $\frac{1}{2}$ cup pinto beans, margarine and low fat cheese and salsa. Add a side salad.
- 1 cup reduced sodium vegetable soup, 6 whole grain crackers, and $\frac{1}{2}$ sandwich with turkey, low fat mayo on whole wheat bread.
- Fill 6" pita bread with veggies, tuna, low fat dressing and 6 oz. lite yogurt or 1 cup low fat milk
- 2 slices of rye bread with turkey or lean roast beef and a small orange. Include a small side or 2 cups of mixed non-starchy vegetables.
- 1 cup low sodium minestrone soup, and 6 whole grain crackers, string cheese and a small apple.

Dinner



- 3-4 oz baked or grilled fish with 1 cup of cooked brown rice or quinoa. Steamed or grilled veggies on the side.
- Small grilled chicken breast with small 1 cup mashed potato. Serve with a side salad, small apple (sliced) and balsamic vinaigrette.
- Stir-fry made with chicken or shrimp, fresh vegetables and served with 1 cup cooked of brown rice.
- Frozen Dinner (healthy choice, lean cuisine) with a green salad or cooked vegetables.
- Medium baked potato with 1 cup of steamed broccoli, ¼ cup of low fat cheese. Use a dollop of nonfat Greek yogurt.
- 2 corn tortillas (6 inch) with ¼ cup beans on each tortilla. Include grilled fish, sautéed peppers and onion. Served with tomato salsa and lime.
- Chicken breast grilled with spices, 1 cup cooked beans, with broccoli or other non-starchy vegetables
- Buy packaged salad, add 3oz tuna or chicken, and add ½ cup beans, 6 whole grain crackers and a small piece of fruit (not larger than size of tennis ball).
- 3 oz. lean pork, 1 cup cauliflower, 1 cup of broccoli, medium sweet potato (6 oz), 3 graham cracker squares.
- 2/3 c cooked whole grain pasta with 1/2 cup no sugar added spaghetti sauce with ground turkey breast; cooked broccoli and a tossed salad with lite dressing.
- 3 oz. grilled fish or chicken breast, medium baked potato (6 oz) with light margarine, 1 cup cooked carrots, raw vegetables, and ½ medium banana sliced over sugar free gelatin.

Hints



- Eat a variety of foods every day.
- Prepare foods with small amounts of healthy fat such as, olive or canola oil.
- Choose lean proteins and include more chicken, turkey, fish, or plant-based proteins.
- Pick higher fiber foods like whole grains, bran cereals, whole fruits, vegetables, and legumes such as, pinto beans or lentils.
- Feel free to substitute 1 cup of 8 oz nonfat milk with either a small piece of fruit, 3/4 cup nonfat/low fat Greek yogurt or 1 serving of low sodium baked chips (28 grams or 15 tortilla chips).
- Look at labels when you can. Check the serving size first then look at grams of carbohydrates and grams of fiber.
- For the best blood sugar control, be consistent with your intake of carbohydrates at meals and choose higher fiber carbohydrates.

Beverages



- Water, black coffee, unsweetened tea, and sugar free drinks are free.
- Limit/avoid fruit juice. 3- 4 ounces of fruit juice is 15 grams of carbohydrate. This source of fast acting carbohydrate can make your blood sugars spike. Juice is best saved for treating low blood sugar.

Websites / references

- www.diabetes.org American Diabetes Association
- www.diabetesselfmanagement.com Diabetes-Friendly Recipes
- The American Diabetes Association “Month of Meals” Diabetes Meal Planner
- <https://www.diabetesfoodhub.org/> Diabetes Food Hub: Recipes, Meal Planning, Cooking Classes



Fiber Facts:

Why high-fiber foods are important

Why do I need high-fiber foods?

High-fiber foods are important for your health in many ways. Eating more high-fiber foods can help:

- Reduce your risks of heart disease, type 2 diabetes, and several types of cancer.
- Keep your cholesterol and blood pressure in healthy ranges.
- Improve your digestion.

You'll also feel fuller so you may eat less, which can help with weight management.

Eating processed foods won't give you these benefits.

What is fiber?

It's the part of plant-based foods that our bodies can't digest. High-fiber foods include vegetables, fruits, beans, peas, lentils, nuts, seeds, and whole grains.

What's a whole grain?

A whole grain has all its natural nutrients, as well as fiber. Whole grains include wheat, oatmeal, rye, cornmeal, bulgur, barley, brown rice, and popcorn.

Refined grain has been milled, which removes vitamins and other nutrients along with fiber. When grain is "enriched," some nutrients are added back, but fiber isn't. For example, enriched white flour doesn't have the fiber that's in whole-wheat flour.

How much fiber do I need?

The American Heart Association recommends 25 to 38 grams of fiber daily. Most people get only about half that much. You can use these tips to make sure you're getting enough fiber.

Delicious ways to add fiber

- Eat 5 or more servings of vegetables and fruits every day. Fresh is usually most nutritious. Frozen or canned are okay too.
- Try recipes that include beans, peas, barley, lentils, quinoa, bulgur, or brown rice.
- Check labels and choose breads, cereals, tortillas, and crackers that list a whole grain (wheat, corn, etc.) as the first ingredient.
- Choose whole grains for at least half of your daily grain servings.
- Add fiber foods gradually over 2 to 3 weeks. Adding fiber too fast can give you gas or make you feel bloated.
- Drink 6 to 8 cups of water or other fluids daily (unless your doctor has told you not too).

If you use wheat bran to have regular bowel movements (poop), start with 1 teaspoon per meal. Slowly increase to 2 to 4 tablespoons a day.

If you use psyllium fiber supplements, follow label directions and get enough fluids.

Read food labels

Look for "dietary fiber" on food labels. Choose foods with at least 10 percent of the "daily value" for fiber. You can use labels to compare fiber in similar foods. For example, a whole-wheat tortilla has 3g of fiber, while a white-flour tortilla has less than 1g. A whole-wheat roti has 4g, while a white-flour roti has 1g. If you're gluten-free, it's still important to check labels for fiber.

Look for "100% whole-wheat" or "100% whole-grain" ingredients. The words "multigrain," "wheat," and "enriched flour" don't guarantee the food is whole grain.

Nutrition Facts

Serving Size 2/3 cup (55g)
 Servings Per Container About 8

Amount Per Serving			
Calories	230	Calories from Fat 72	
% Daily Value*			
Total Fat	8g		12%
Saturated Fat	1g		5%
Trans Fat	0g		
Cholesterol	0mg		0%
Sodium	160mg		7%
Total Carbohydrate	37g		12%
Dietary Fiber	4g		16%
Sugars	1g		
Protein	3g		
Vitamin A			10%
Vitamin C			8%
Calcium			20%
Iron			45%

* Percent Daily Values are based on a 2,000 calorie diet.
 Your daily value may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Fiber Content of Foods

Vegetables	Serving Size	Dietary Fiber (g)	Fruits	Serving Size	Dietary Fiber (g)
Avocado	½ cup	6g	Prunes	½ cup	6g
Artichoke hearts, cooked	½ cup	5g	Pear, with skin	1 medium	5g
Spinach, cooked	½ cup	4g	Raspberries	½ cup	4g
Peas, cooked	½ cup	4g	Mango	1 medium	4g
Baked potato with skin	1 medium	4g	Raisins	½ cup	3g
Sweet potato, cooked	½ cup	4g	Banana	1 medium	3g
Broccoli, cooked	½ cup	3g	Apple, with peel	1 medium	3g
Brussel sprouts	½ cup	3g	Orange	1 medium	3g
Turnips, cooked	½ cup	2g	Strawberries, sliced	½ cup	2g
Tomato, raw	1 medium	2g	Peach, with skin	1 medium	2g
Swiss chard, cooked	½ cup	2g	Papaya	½ cup	1g
Lettuce, romaine	2 cups	2g	Cherries	10 medium	1g
Green beans, cooked	½ cup	2g	Cantaloupe	½ cup	1g
Eggplant, cooked	½ cup	2g	Cereal	Serving Size	Dietary Fiber (g)
Corn, cooked	½ cup	2g	Fiber One	⅔ cup	18g
Chinese mustard greens	½ cup	2g	All Bran (100%) cereal	½ cup	9g
Carrots, raw	1 medium	2g	Raisin Bran	1 cup	7g
Beets	½ cup	2g	Shredded Wheat	1 cup	6g
Asparagus, cooked	½ cup	2g	Oatmeal or Cheerios	1 cup	4g
Onions, chopped	½ cup	1g	Wheaties	1 cup	3g
Fennel, raw/sliced	½ cup	1g	Wheat bran	2 tbs	3g
Cauliflower, cooked	½ cup	1g	Granola	1 cup	3g
Cabbage, cooked	½ cup	1g	Cream of Wheat	3 tbs	1g
Zucchini, sliced	½ cup	<1g	Grains	Serving Size	Dietary Fiber (g)
Beans and Nuts	Serving Size	Dietary Fiber (g)	Quinoa, cooked	1 cup	5g
Navy beans, cooked	½ cup	10g	Brown rice, cooked	1 cup	4g
Black beans, cooked	½ cup	8g	Whole-wheat pasta, cooked	1 cup	4g
Kidney beans	½ cup	8g	Popcorn (air-popped)	3 cups	4g
Lentils, cooked	½ cup	8g	Whole-wheat bread/English muffin	1 slice	3g
Pinto beans, cooked	½ cup	8g	Rice noodles	1 cup	2g
Lima beans, cooked	½ cup	7g	Rye bread	1 slice	2g
Soy beans (edamame)	½ cup	5g	Cornmeal	¼ cup	2g
Almonds	¼ cup	4g	Tortillas (corn)	2	2g
Flaxseed, ground	2 tbs	4g	We're here to help Search My Doctor Online at kp.org/mydoctor to learn more.		
Peanuts	¼ cup	3g			
Pecans, chopped	¼ cup	3g			
Pistachios	¼ cup	3g			

This information is not intended to diagnose health problems or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor.

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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 ideal meal plan that works for everyone with diabetes. This guide provides you with a variety of information that may help you plan your meals:

- **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:** 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 you can still enjoy, including grains, fruits, vegetables, milk products, and even some food choices with sugar. Carbohydrates raise your blood sugar level more than proteins and fats. Learn how to track the carbohydrates you eat in your meals and snacks

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. It can also help you determine where adjustments may be necessary.

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

Visit us at www.LillyDiabetes.com

MEAL PLANNING OPTIONS

BALANCE YOUR PLATE

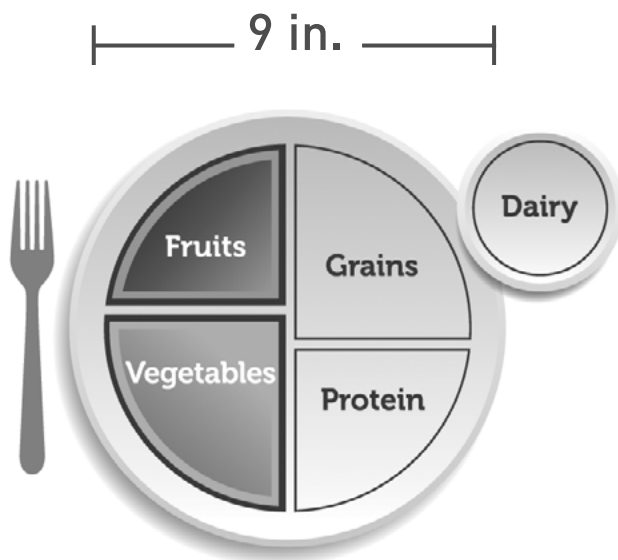
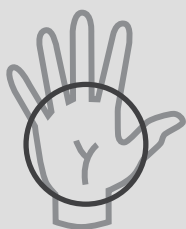


Plate Method

The plate method 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.

- **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, remember to include the carbohydrate content as part of your total carbohydrate amount for the meal

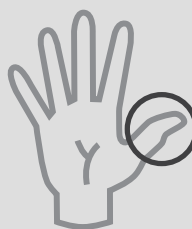
A HANDY GUIDE TO PORTION SIZES*:



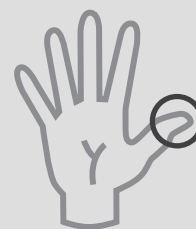
Your palm size, not including fingers and thumb, is about 3 ounces of cooked and boneless meat.



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



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



The size of your 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

! Foods marked with ! 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, 2015.

CARBOHYDRATES

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
- ⅓ 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 (4 to 4 ½ inch piece)	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
! 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)	8 chips
*Regular (¾ oz)	13 chips

**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 inches long or 4 oz)	1
Berries	
☺ Blackberries	1 cup
Blueberries	¾ cup
☺ 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 (2 small guava)	2 ½ oz
☺ Kiwi (sliced)	½ cup
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 cup
Pineapple (fresh)	¾ cup
Plums (small)	2
Dried (prunes)	3
Watermelon (diced)	1 ¼ cups

Fruit Juice	Serving Size
Apple, grapefruit, orange, pineapple	½ cup
Fruit juice blends (100% juice)	⅓ 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 or 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 greek; may be flavored with an artificial sweetener, 6 oz)	⅔ 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)	⅔ cup

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

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

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)	
Soy milk (regular, plain)	1 cup
(½ carbohydrate + 1 fat)	
Yogurt with fruit (low-fat, 6 oz)	⅔ cup
(1 fat-free milk + 1 carbohydrate)	

FOOD LISTS FOR MEAL PLANNING

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:

- ½ cup of cooked vegetables or vegetable juice
- 1 cup of raw vegetables

Amaranth or Chinese spinach
Asparagus
Beans (green, wax, Italian)
Bean sprouts
Broccoli
☺ Brussels sprouts
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/dark or milk type)	1 oz
(1 ½ carbohydrates + 1 ½ fats)	
Candy (hard)	3 pieces
Cookies (chocolate chip, 2 ¼ inch across)	2
(1 carbohydrate + 2 fats)	
Cookies (vanilla wafer)	5
(1 carbohydrate + 1 fat)	
Doughnut (cake, plain, medium, about 1½ oz)	1
(1 ½ carbohydrates + 2 fats)	
Fruit juice bars (frozen, 100% juice, 3 oz)	1 bar
Gelatin, regular	½ cup
Granola snack bar (regular or low-fat) ¾ oz bar	
(1 ½ carbohydrates)	
Honey	1 Tbsp
(1 carbohydrate)	
Hot chocolate, (regular, made with water)	
(1 ½ carbohydrate + 1 fat)	1 envelope
Ice cream (light or no sugar added)	½ cup
(1 carbohydrate + 1 fat)	
Ice cream (regular)	½ cup
(1 carbohydrate + 2 fats)	
Jam or jelly (regular)	1 tbsp
Muffin (4 oz)	¼ muffin
(1 carbohydrate + ½ fat)	
Pie (8-inch, 2-crust, fruit)	⅙ pie
(3 carbohydrates + 2 fats)	
Pudding (regular, made with reduced-fat milk)	
(2 carbohydrates)	½ cup
Pudding	½ cup
(sugar-free or sugar- and fat-free, made with fat-free milk)	
Sports drink (fluid replacement type)	1 cup (8 oz)
Sugar	1 tbsp
Syrup (light, pancake type)	2 tbsp
Syrup (regular, pancake type)	1 tbsp
Yogurt (frozen, fat-free)	⅓ 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.

Food	Serving Size
Beef (Select or Choice grades, trimmed of fat):	
Ground round (90% or higher lean/10% or lower fat), roast (chuck, rib, rump), sirloin, steak (cubed, flank, porterhouse, T-bone, tenderloin)	1 oz
Cheeses (with 3 grams of fat or less per oz)	1 oz

Cottage cheese	¼ 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.

Food	Serving Size
Beef:	1 oz
Corned beef, ground beef (85% or lower lean/15% or higher fat), meatloaf, Prime grades trimmed of fat (prime rib)	
Cheeses (with 4-7 grams of fat per oz)	1 oz
Feta, mozzarella, pasteurized processed cheese spread, reduced-fat cheeses, string cheese	
Egg	1
Fish, any fried type	1 oz
Pork (cutlet, ground, shoulder roast)	1 oz
Poultry (with skin or fried)	1 oz
Ricotta cheese (2 oz)	¼ 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.

Food	Serving Size
Bacon (pork)	2 slices
! Bacon (turkey)	3 slices
Cheese (regular):	1 oz
American, bleu, brie, cheddar, hard goat, Monterey jack, parmesan, 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):	1 oz
Bologna, pastrami, hard salami	
! Sausage (with 8 or more grams of fat per oz):	1 oz
Bratwurst, chorizo, Italian, knockwurst, Polish, smoked, summer	

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)	½ cup
(1 starch + 1 lean meat)	
☺ Hummus	⅓ cup
(1 carbohydrate + 1 medium-fat meat)	

Nut spreads: almond butter, cashew butter, peanut butter, soy nut butter (1 high-fat meat)	1 tbsp
Tempeh (1 medium-fat meat)	1/4 cup
Tofu (4 oz) (1 medium-fat meat)	1/2 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. Saturated fats primarily come from animal sources and are considered unhealthy fats. Trans fat, a product of food processing, is an unhealthy fat and should be avoided.

In general, a single serving of fat is:

- 1 teaspoon of oil or solid fat
- 1 tablespoon of regular salad dressing

Unsaturated Fats

Monounsaturated Fats	Serving Size
Avocado (medium, 1 oz)	2 tbsp
Nut butters (<i>trans</i> -fat free)	1 1/2 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 seed, safflower, soybean, sunflower)	1 tsp
Salad dressing (reduced-fat, [Note: may contain carbohydrate])	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 1/2 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)	1/2 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 with Carbohydrates	Serving Size
Cream cheese (fat-free)	1 tbsp
Creamers (nondairy, liquid)	1 1/2 tsp
Creamers (nondairy, powdered)	1 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 (honey, brown, dijon, horseradish-flavored, wasabi-flavored, or yellow)	1 tbsp
! Pickles (medium size dill)	1 1/2
Salsa	1/4 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

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)	1
(3 carbohydrates + 1 lean meat + 2 fats)	

! Pizza (cheese/vegetarian, thin crust)	1/4 of a 12-inch pie
(2 carbohydrates + 2 medium-fat meats)	

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

Alcohol

In general, 1 alcohol equivalent (1/2 oz absolute alcohol, also known as ethanol, or ethyl alcohol) has about 100 calories. One alcohol equivalent is 12 oz beer + 1/2 carbohydrate or 1 1/2 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.

FAST FOOD

The choices in the Fast Foods list are not specific fast food meals or items but are estimates based on popular foods.

Chicken breast, breaded and fried 1 (about 7 oz)

(1 carbohydrate + 6 medium-fat proteins)

Chicken wing, breaded and fried 1 wing

(1/2 carbohydrate + 2 medium-fat proteins)

1 main dish salad 1 salad
(grilled chicken-type, no dressing or croutons) (about 11 1/2 oz)

(1 carbohydrate + 4 lean proteins)

Pizza with cheese, pepperoni or sausage, thin crust 1/8 of a 14-inch pizza (about 2 3/4 oz)

(1 1/2 carbohydrates + 1 high-fat protein + 1 fat)

! Asian beef/chicken/shrimp with vegetables in sauce 1 cup

(1 carbohydrate + 2 lean proteins + 1 fat)

Taco crisp, with meat and cheese 1 small taco
(1 carbohydrate + 1 medium-fat protein + 1/2 fat)

Hamburger regular with bun and condiments (catsup, mustard, onion, pickle) 1 burger (about 3 1/2 oz)

(2 carbohydrates + 1 medium-fat protein + 1 fat)

French fries 1 small order
(2 1/2 carbohydrates + 2 fats)
Milkshake, any flavor 1 small shake (12 fl oz)
(5 1/2 carbohydrates + 3 fats)

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, Diabetes Care and Education Specialist (DCES), 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	1400	1600	1800	2000	2200	2400
Carbohydrates							
Starches	5	6	7	8	9	10	11
Fruits	3	3	3	3	4	4	4
Milk	2	2.5	3	3	3	3	3
Sweets, Desserts, & Other Carbohydrates†							
Nonstarchy Vegetables	3	4	4	5	6	6	6
Meat & Meat Substitutes	4 oz	5 oz	6 oz	6 oz	7 oz	8 oz	9 oz
Fats	3	4	5	6	6	7	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

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 (28 g) 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.

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

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.

PERSONAL MEAL PLAN

Meal Plan for: _____ Date: _____

Registered Dietitian: _____ No. of Carbohydrate Choices: _____ Proteins (ounces): _____

Phone: _____ Total Calories: _____ Fats (grams): _____

Email: _____ Carbohydrates (grams): _____

With your RD, fill in your personal meal plan below with the number of grams of carbohydrates and/or number of carbohydrate choices for each meal and snack (if needed).

	Breakfast (Time:_____)	Snack (Time:_____)	Lunch (Time:_____)	Snack (Time:_____)	Dinner (Time:_____)	Snack (Time:_____)
Carbohydrates						
Starch						
Fruits						
Milk						
Nonstarchy Vegetables						
Sweets, Desserts, & Other Carbohydrates						
Meat & Protein Sources						
Fats						
Free Foods						
Menu Ideas						

RESOURCES

American Association of Diabetes Educators

www.diabeteseducator.org

American Diabetes Association

www.diabetes.org

Academy of Nutrition and Dietetics

www.eatright.org

The Official Pocket Guide to Diabetic Exchanges

American Diabetes Association, 2015.

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Diabetes Care and Education (DCE), a dietetic practice group of the Academy of Nutrition and Dietetics, promotes quality diabetes care and education. DCE comprises members of the Academy of Nutrition and Dietetics who are leaders in the field of medical nutrition therapy (MNT) and care of people with diabetes. Their expertise is widely recognized throughout the diabetes community. We are pleased to have had the opportunity to collaborate with this group of professionals on the creation of Lilly's **Daily Diabetes Meal Planning Guide**.

We hope you find this resource useful.

The Lilly logo, featuring the word "Lilly" in a stylized, cursive script font.

DIABETES



How to Treat Low Blood Sugar

When you have diabetes, hypoglycemia means you have low blood sugar (glucose). A low blood sugar level is below 70 mg/dL. Glucose is an important sugar. The cells of your brain, muscles, and many parts of the body need it for energy. If your brain cells don't get enough glucose, you can pass out.

Hypoglycemia can happen for many reasons. Know the signs of low blood sugar, how to treat it, and what you can do to prevent more serious symptoms.

Know the Symptoms

When you have low blood sugar, you may feel:

- Dizzy
- Sweaty
- Irritable/cranky
- Shaky
- Hungry
- Headache pain
- Nervous
- Fast heartbeat
- Sudden moodiness or behavior, such as crying for no reason
- Tingling sensation around the mouth and/or in fingers
- Something isn't right

When your blood sugar is low, you may also have:

- Pale skin color
- Clumsy or jerky movements

- Difficulty thinking clearly or reading
- Poor coordination
- Heavy breathing
- Seizures
- Slurred speech

Plan ahead

- Learn how to treat low blood sugar by following the 15/15 rule (see page 2).
- Call your doctor or diabetes specialist if your blood sugar is less than 60 mg/dL twice in one day.
- Always carry glucose tablets, gel, or other carbohydrate sources with you to treat low blood sugar.
- Wear medical identification such as a bracelet or tag. Always carry something with you to let people know you have diabetes.

Follow the 15/15 rule

Eat a carbohydrate (carb) source (15 grams) and wait 15 minutes to see if you feel better.

To use the 15/15 rule:

Step 1: If you feel symptoms of low blood sugar:

- Stop what you're doing immediately.
- Test your blood sugar.
- Go to **Step 2** if your blood sugar level is below 70 mg/dL.
- Start at **Step 2** if you can't test your blood sugar and have symptoms of low blood sugar.

Step 2: If your blood sugar is between 50 and 70 mg/dL, eat or drink one of the following carbohydrate sources. Each contains about 15 grams of carbs:

- 3 to 4 glucose tablets
- 1 tube of glucose gel
- 1 cup fruit juice
- 1 cup regular (not diet) soft drink
- 8 to 10 LifeSavers candies
- 3 teaspoons or 3 packets of sugar

If your blood sugar is less than 50 mg/dL, eat or drink 2 carb sources (30 grams).

Note: If you take miglitol (Glyset) you can only use glucose tablets to treat low blood sugar. Other carb sources won't work.



Step 3: Wait 15 minutes and then check your blood sugar level again.

- Repeat **Steps 2 and 3** if your blood sugar is still below 70 mg/dL after eating a carb source.
- Go to **Step 5** if your blood sugar level is rising up to between 80 and 140 mg/dL.

Step 4: Repeat **Steps 2 and 3** only one more time. **If you do these self-care steps 3 times** and your blood sugar is still below 70 mg/dL, **immediately call the Appointment and Advice Call Center at 1-866-454-8855.**

Step 5: If your blood sugar level is rising to between 80 and 130 mg/dL, and your next meal is an hour or more away, eat a small meal to help keep your blood sugar up. Try eating:

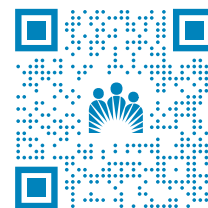
- Half of a small sandwich
- A small glass of low-fat milk and 2 graham crackers
- 6 to 7 whole-grain crackers and 1 ounce of cheese or peanut butter (the prepackaged kind work well)

Step 6: Figure out why your blood sugar was low.

Step 7: Plan how you will prevent low blood sugar in the future.

Learn more

Live Well With Diabetes:
kpdoc.org/diabetes



This information is not intended to diagnose health problems or to take the place of medical advice or care you receive from your physician or other health care professional. If you have persistent health problems, or if you have additional questions, please consult with your doctor. If you have questions or need more information about your medication, please speak to your pharmacist. Kaiser Permanente does not endorse the medications or products mentioned. Any trade names listed are for easy identification only. Some photos may include models and not actual patients.

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Alcohol and Diabetes

If you have diabetes, it's important to understand how drinking alcohol can affect your blood sugar.

What's one alcoholic drink?

- One 12-ounce bottle of beer or wine cooler
- One 5-ounce glass of wine
- 1.5 ounces of liquor (like vodka, scotch, or gin) in a shot or a mixed drink (with tonic or juice)

Beer or Cooler



5% alcohol 12 oz.

Malt Liquor



7% alcohol 8.5 oz.

Table Wine



12% alcohol 5 oz.

80-Proof Spirits (gin, vodka, whiskey, etc.)



40% alcohol 1.5 oz.

The percent of "pure" alcohol, expressed here as alcohol by volume (alc/vol), varies by beverage.

When should I limit or stop drinking alcohol?

Limit or stop drinking if:

- Your diabetes isn't well controlled and your blood sugar is too high or too low.
- You have other health problems, such as nerve damage, eye disease, or problems with your stomach or pancreas.
- You have high blood triglycerides (a type of fat in the blood).
- You're pregnant or breastfeeding.
- You've had problems with alcohol in the past.

Will alcohol interfere with any of my medications?

Maybe. Your doctor may have prescribed several types of medications to help control your blood pressure, cholesterol, and blood sugar. Drinking alcohol may change the way diabetes and other medications work in the body.

Talk with your doctor, pharmacist, or diabetes educator about how to stay safe and avoid problems with alcohol and medication.

What should I know if I decide to drink alcohol?

- Limit how much you drink. Keep it to 1 drink per day for women; 2 drinks per day for men.
- Avoid sweet wines or mixed drinks with juices. These have extra calories and carbohydrates that raise your blood sugar. Use calorie-free and sugar-free club soda, tonic, or water instead.
- Always eat a meal or a snack first. Drinking alcohol on an empty stomach can cause low blood sugar (called hypoglycemia where blood sugar is less than 70 mg/dL).
- Be safe. Alcohol can affect your judgment and behavior. It can also cause blood sugar to get dangerously low. Friends and family could mistake symptoms of low blood sugar for signs that you've had too much to drink.
- Check your blood sugar often to learn your body's response to alcohol.
- Be careful with exercise. Alcohol and exercise both lower blood sugar. Don't drink if you've just exercised or plan to exercise.

Follow these other safety tips when drinking alcohol:

- Always wear medical identification if you take insulin or diabetes medications.
- Never drink and drive.
- Make sure your family and friends know the signs of low blood sugar and how to treat it.

How many calories and carbohydrates are there in alcoholic drinks?

Alcoholic drinks often have different amounts of carbohydrates and calories.

Drinking too much can make you gain weight and make your blood sugar harder to control. If you plan to drink alcohol, talk to your diabetes care team about how to fit it into a healthy lifestyle.

Drink	Amount (oz.)	Calories	Carbohydrate grams
regular beer	12	150	13
light beer	12	100	5
nonalcoholic beer	12	60	12
dry wine	4	80–90	0–5
nonalcoholic wine	4	25–35	6–7
champagne or sparkling wine	4	100	4
sweet dessert wine	2	100	7
wine cooler	12	215	30
gin, rum, vodka, brandy, scotch whiskey	1.5	100–115	0
liqueurs, cordials	1.5	160	17
martini	1.5	156	0
margarita	8	420	80
piña colada	5	290	44
bloody mary	5	115	5



Diabetes Resources

Websites

www.kp.org/nutrition Kaiser Permanente Nutrition information

www.cdc.gov/diabetes Centers for Disease Control and Prevention (CDC)

<https://diabetesfoodhub.org> American Diabetes Association, recipes, meal planning, free virtual cooking classes

www.diabetes.org American Diabetes Association (English/Spanish)

www.eatright.org Academy of Nutrition and Dietetics

<https://kp.org/mydoctor/wellnesscoaching> Kaiser Permanente Wellness Coaching for physical activity, healthy eating, stress, healthy weight, improved sleep, and smoking cessation 1-866-251-4514

www.momsmealsnc.com Home delivered meals – available for Diabetes 1-888-860-9424

Nutrition and Carbohydrate Information

www.calorieking.com

Diabetes Management/Record-Keeping

www.mysugr.com “MySugrDiabetes Logbook”. Website or App. Log for BG, carbs, exercise. Upgrade to GoPro to look up carb grams, log insulin and more detail. Great for those using insulin with meals.

KP Apps

Kp.org
My Doctor Online
kpdoc.org/diabetes

Additional class

Diabetes Basics

Nutrition and Weight Management

Websites or Apps. Large database of foods and can also scan barcodes for packaged foods. Can log food and exercise, and sync with exercise trackers.

www.loseit.com
www.myfitnesspal.com
chronometer.com

Books

The Complete Quick & Hearty Diabetic Cookbook - American Diabetes Association. 2012.

From Plant to Plate, Diabetes Edition - Tammy Bivens. 2016.

The Ultimate Diabetes Meal Planner – J. Higgins & D.Groetzing. 2009.

The Calorie King Calorie, Fat & Carbohydrate Counter - A. Borushek. Updated yearly.

Individual Help

1:1 with a Registered Dietitian (RD)
- specialized meal planning
- carb counting

1:1 with a Health Educator
- healthy lifestyle management
- how to use glucometer



Health Education Centers

Northern California

Alameda: (510) 752-9215

Berkeley: (510) 752-6150

Campbell: (408) 871-6463

Clovis: (559) 324-5030

Daly City: (650) 301-4445

Davis: (916) 614-4035

Deer Valley: (925) 813-3560

Dublin: (925) 556-4299

Elk Grove: (916) 478-5680

- **Big Horn:** (916) 478-5680

- **Promenade:** (916) 544-6220

Fairfield: (707) 427-4466

Folsom: (916) 817-5278

Fremont: (510) 248-3455

Fresno: (559) 448-4415

Gilroy: (408) 848-4690

Manteca: (209) 824-5070

Martinez: (925) 372-1198

Milpitas: (408) 945-2732

Modesto: (209) 735-6060

- **Dale Road:** (209) 557-1601

Mountain View: (650) 903-2636

Napa: (707) 258-4490

Novato: (415) 491-6555

Oakland: (510) 752-6150

Park Shadelands: (925) 906-2190

Petaluma: (707) 765-3485

Pinole: (510) 243-4020

Pleasanton: (925) 847-5172

Redwood City: (650) 299-2433

Richmond: (510) 307-2210

Roseville:

- **Eureka:** (916) 784-5775

- **Riverside:** (916) 746-4308

Sacramento:

- **Downtown Commons:**
(916) 497-3180

- **Point West:** (916) 614-4035

San Francisco:

- **Geary:** (415) 833-3450

- **Mission Bay:** (415) 833-3450

San Jose: (408) 972-3340 **San**

Leandro: (510) 454-4531

San Mateo: (650) 358-7084

San Rafael Park:

(415) 491-6555

San Ramon: (925) 244-7230

Santa Clara: (408) 851-3800

- **Skyport:** (408) 436-3310

Santa Cruz: (408) 972-3340

Santa Rosa: (707) 393-4167

Scotts Valley: (408) 972-3340

Selma: (559) 898-6030

South Sacramento:

(916) 688-2428

South San Francisco:

(650) 742-2439

Stockton: (209) 476-3299

Tracy: (209) 839-6130

Union City: (510) 675-4531

Vacaville: (707) 624-2225

Vallejo: (707) 651-2692

Walnut Creek: (925) 295-4410

Watsonville: (408) 972-3340

HEALTH EDUCATION