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Chapter **1**

What Can I Eat?

One of the most common questions that people with diabetes ask is, “What can I eat?” Being aware of what you eat when you have diabetes is important for keeping blood glucose levels in your target ranges and reducing the risk of complications. This task can be overwhelming, especially for people who have just been diagnosed. But living with diabetes doesn’t mean you have to feel deprived, overhaul your whole diet, or stop eating the foods you love. It’s about choosing nutritious foods and preparing them in a way that is healthy and enjoyable. When you know the basics of healthy eating, it gets easier! You’ll be cooking flavorful, satisfying, nutrient-rich meals in no time.

The great news for people with diabetes is that a huge variety of healthy and delicious food options are available. Having diabetes can be an opportunity to embrace healthy eating.

In this chapter, we explore six food categories — vegetables, fruits, whole grains, protein, fat, and dairy — and identify the best food options within these categories for people with diabetes.

Introducing the Importance of Carbohydrates

Knowing what to eat when you have diabetes can be very confusing, especially in today's world where fad diets, food trends, and “miracle” foods are advertised everywhere you look. You're bombarded with ever changing and often conflicting information about what you “should” and “shouldn't” eat. Don't let all this information overwhelm you! Many nutrition basics for people with diabetes have withstood the test of time.

Before we take a look at some of the foods that will set you up for diabetes management success, we need to give you a brief introduction to a nutrient that is very important for people with diabetes: carbohydrate. Three main nutrients (or macronutrients) — carbohydrate, protein, and fat — make up all the foods we eat. *Carbohydrate* is a nutrient found in fruits, vegetables, grains, milk and yogurt, and starchy and sugary foods and drinks. Carbohydrate is the nutrient that raises blood glucose levels, so it's important for people with diabetes to be aware of their carbohydrate intake. But carbohydrate should not be completely removed from your diet; your body needs a certain amount of carbohydrate to function properly.

As you work your way through this chapter, you'll see that many of the best food choices for people with diabetes contain carbohydrates. Carbohydrates are not the enemy! The important thing is to choose nutrient-rich sources of carbohydrate rather than refined, sugary carbohydrates. For more information on carbohydrate and other macronutrients, see Chapter 16.

Eat Your Vegetables!

You may remember your parents making sure you ate all the vegetables on your plate when you were young. That's because vegetables are full of vitamins, minerals, fiber, and other nutrients, and they're often relatively low in calories and carbohydrate (the primary nutrient in foods that affect blood glucose — see Chapter 16 for more information); this makes them great for people with diabetes — and everyone else!

But not all vegetables are created equal. Vegetables can be divided into two main groups: nonstarchy and starchy. Starchy vegetables contain more starch and, therefore, more calories and carbohydrate than nonstarchy vegetables. Both kinds of vegetables are an important part of a well-balanced diet, but starchy vegetables have an impact on blood glucose. So, if you have diabetes, moderation is important when it comes to starchy vegetables.

Nonstarchy vegetables

Nonstarchy vegetables are a great way to satisfy your appetite. Enjoy these vegetables often! When it comes to nonstarchy vegetables, more is better (which is not something you hear very often when you have diabetes). Try to eat three to five servings of nonstarchy vegetables per day; this will help you get the vitamins, minerals, and fiber you need to stay healthy. Some common nonstarchy vegetables include the following:

Artichokes and artichoke hearts	Leeks
Asparagus	Mushrooms
Beets	Okra
Bok choy	Onions
Brussels sprouts	Pea pods
Broccoli	Peppers
Cabbage (all varieties)	Radishes
Carrots	Salad greens (arugula, endive, escarole, lettuce, radicchio, romaine, spinach, watercress)
Cauliflower	Sprouts
Celery	Squash (crookneck, spaghetti, summer, zucchini)
Cucumber	Tomatoes
Eggplant	
Greens (all varieties)	
Green beans	



TIP

You can enjoy fresh, frozen, or canned varieties of any nonstarchy vegetable. When it comes to canned or frozen vegetables, the best choices for people with diabetes are varieties without added sodium, sugar, or fat. Purchase canned vegetables that say “low sodium” or “no salt added” on the label. If you have to use canned vegetables with sodium, drain and rinse them before cooking to reduce the amount of sodium. Try to limit or avoid frozen or canned vegetables that come in sauces; they tend to be higher in fat and sodium.

Starchy vegetables

When you have diabetes and want to eat starchy foods, try to choose the most nutritious starches available instead of eating processed, refined starches. Starchy vegetables are a great option. They contain fiber and nutrients that are good for your body. They’ll raise your blood glucose due to their carbohydrate content, so moderation is important.

The best starchy vegetable choices for people with diabetes are those without any added salt, sugar, or fat. Common examples of starchy vegetables include the following:

Acorn squash	Parsnips
Butternut squash	Potatoes and sweet potatoes
Corn	Pumpkin
Green peas	

An Apple a Day . . .

Fruits are another healthy food choice for people with diabetes. Fruits contain carbohydrate and affect your blood glucose, so be sure to account for them in your meal plan (see Part 4). But they're also full of fiber and nutrients that a health body needs. If you have a sweet tooth, great news: A serving of fruit is a wonderful alternative to heavier desserts and sugary treats.

The best fruit choices for people with diabetes are fresh, canned, and frozen fruits without added sugars. When shopping for canned fruits, look for options that are packed in juice or light syrup. Here are just a few examples of the many fruits you can enjoy:

Apples	Melon (cantaloupe, honeydew, watermelon)
Apricots	Oranges
Avocados	Papaya
Bananas	Peaches
Blackberries	Pears
Blueberries	Pineapple
Cherries	Plums
Grapefruit	Raspberries
Grapes	Strawberries
Kiwi	
Mangoes	



TIP

Dried fruits such as cranberries, dates, figs, and raisins are another option for people with diabetes. They make a handy and tasty snack. But dried fruits are usually high in sugar, so the serving sizes are small. Dried fruits are just concentrated versions of fresh fruits — think about the size of a raisin compared to a grape, or a prune compared to a plum. So watch your portions if you choose to add dried fruits to your diet.

Making Your Grains Count

Wondering if people with diabetes can eat starchy foods like grains and pasta? Yes, they can! The key to including starches into your diet is to make them count. This means choosing the most nutritious starches available instead of filling up on processed starches with little to no nutritional value. So, ditch the refined grains, sugary starches, and white-flour-based products! The better bet is to choose whole grains and whole-grain products.

A *whole grain* is an entire, unrefined grain. Whole grains are made up of the bran, germ, and endosperm of the grain, which contain a lot of nutrients. Refined grains have been processed to remove parts of the grain, and are missing many of the nutrients of their whole-grain counterparts. So, for a fiber and nutrient boost, try replacing the processed grain products on your plate with whole grains or whole-grain products. Switch out that white rice for brown or wild rice. Look for breads and pastas that are made with 100 percent whole-wheat flour. Or experiment with whole grains like quinoa, barley, or farro.

Some popular whole grains to try include the following:

Brown rice	Quinoa
Bulgur or cracked wheat	Sorghum
Buckwheat or buckwheat flour	Whole farro
Corn meal and whole corn	Whole-grain barley
Millet	Whole rye
Oatmeal and whole oats	Whole-wheat flour
Popcorn	Wild rice



TIP

When shopping for whole-grain foods, make sure you check the food labels. You'll see many products in your grocery store that claim to be made with or contain whole grains. But don't let clever packaging fool you; some products that make these claims actually contain only a small amount of whole grains. Check the ingredient list and choose foods that have a whole grain or whole-grain flour listed as the first ingredient.



TIP

The Oldways Whole Grain Council has created a Whole Grain Stamp to make it easier for consumers to spot products that contain at least half a serving of whole grains. This stamp features a sheaf of grain on a golden-yellow background, and there are three varieties of the stamp that indicate different amounts of whole grain. For more information on the Whole Grain Stamp, visit www.wholegrainscouncil.org/whole-grain-stamp.

Choosing Lean Protein

Protein foods are another important part of a well-balanced, diabetes-friendly diet. A wide variety of protein options — from poultry to seafood to plant-based proteins like tofu, beans, and lentils — are great for people with diabetes.

The important things to consider when choosing protein foods are the fat content of animal-based proteins and the carbohydrate content of plant-based proteins. When it comes to protein, keep it lean; people with diabetes should avoid too much fat in their diets because eating too much fat, especially saturated fat and trans fat, can lead to weight gain and increase the risk of heart disease. The best protein choices for people with diabetes are poultry, fish, and other seafood that is not fried, as well as plant-based proteins. Eggs, egg whites, and egg substitutes are other good options.

Poultry

Poultry is a relatively lean source of animal-based protein, but it still contains saturated fat and cholesterol. To cut down on some of the excess fat, choose skinless cuts of poultry when shopping or remove the skin before cooking and try to choose white meat cuts (breasts and tenderloins) instead of the slightly fattier dark meat. Chicken, turkey, and Cornish game hens are all good poultry options. Duck contains more fat than chicken and turkey, so if you enjoy duck, keep that in mind.

Fish and seafood

Seafood is another type of lean protein that is great for people with diabetes. Fish containing omega-3 fatty acids (a beneficial type of fat) are especially good options. Types of fish that are high in omega-3 fatty acids include albacore tuna, herring, mackerel, rainbow trout, salmon, and sardines. (For more information on omega-3 fatty acids, see Chapter 16.) Other fish and seafood options to enjoy include the following:

Catfish	Halibut
Clams	Lobster
Cod	Oysters
Crab	Scallops
Flounder	Shrimp
Haddock	Tilapia



WARNING

Keep in mind that some fish are high in mercury and should be enjoyed in moderation or in some cases avoided all together. This is especially important for pregnant and breastfeeding women and small children. If you're concerned about the mercury content of a certain fish, you can check the Food and Drug Administration and Environmental Protection Agency's consumer advisory about fish. Visit www.fda.gov/downloads/Food/FoodborneIllnessContaminants/Metals/UCM537120.pdf. Fish choices that have the highest mercury content and should be avoided include the following:

Bigeye tuna (sometimes labeled as "ahi")	Orange roughy
King mackerel	Shark
Marlin	Swordfish
	Tilefish

Plant-based proteins

If you're not very familiar with plant-based proteins, it's time to explore this wonderful protein option. In addition to providing protein, the foods in this category also provide fiber (which you don't get from animal-based proteins), and many contain healthy fats. These added nutritional benefits are a great reason to incorporate plant sources of protein into your diet. However, just like fruits, vegetables, and grains, plant-based proteins do contain carbohydrate and will affect your blood glucose; make sure you read nutrition labels for these products and account for the carbohydrate in your diabetes meal plan (see Part 4).

So, what are plant-based proteins? This type of protein includes beans, lentils, peas, soy, and nuts, as well as products made from these foods. Here are a few delicious plant-based proteins you can try:

Beans (black, kidney, pinto, and so on)	Meat replacement products (meatless chicken, bacon, beef, burgers, hotdogs, and so on)
Bean products (baked beans, bean burgers, refried beans)	Nuts and nut spreads and butters
Chickpeas	Peas (black-eyed peas, split peas)
Edamame	Soy nuts
Hummus	Tempeh and tofu
Lentils (all varieties)	



TIP

Meat substitutes, such as meatless burgers, soy “chicken,” and other foods, have become more popular in recent years, especially with vegetarians. You’ll see a wide variety of meat substitutes available in your local grocery store, and many of these meatless proteins are tasty and easy to prepare. Feel free to try these products, but keep in mind that they may be higher in carbohydrate than their meat counterparts and may contain sodium and unhealthy saturated fats. It’s a good idea to check the nutrition labels on these products before making a purchase.

Plant-based proteins are an excellent choice for people with diabetes, so dig in! Just remember that unlike other forms of protein, plant-based proteins contain carbohydrate and will affect your blood glucose. Checking food labels will help you learn the serving sizes of plant-based proteins and understand how they fit into your diet.

Red meats

What about red meat? Are beef, pork, and lamb okay to eat for people with diabetes? The short answer is yes. But red meats and pork are generally higher in saturated fat than other forms of protein. So, enjoy these meats in moderation and try to choose the leanest options available. Look for high-quality grades of meat and try to purchase cuts that have been trimmed of fat. Some of the better choices when it comes to red meats include the following:

- » **Beef:** Chuck steaks, cubed beef, flank steaks, porterhouse steaks, rib, round, rump roast, sirloin, and T-bone steaks
- » **Game:** Bison, rabbit, venison
- » **Lamb:** Chop, leg, or roast
- » **Veal:** Loin chops or roast

- » **Pork:** Center loin chop, ham, tenderloin
- » **Organ meats:** Hearts, kidneys, and livers

You have lots of options when it comes to red meats. And you'll find several healthy and delicious beef, pork, and lamb recipes in Chapter 8. But it's important to be mindful of the fat content of these meats when you have diabetes. Choosing leaner proteins like chicken, seafood, or plant-based proteins for most of your meals can help reduce your risk of high cholesterol and heart disease.

Fat: Good or Bad?

Are fats healthy or unhealthy for people with diabetes? You may have heard a lot of conflicting information about fat. Fat has a bad reputation for being harmful, but believe it or not, your body needs fat to function properly, and there are healthy fats. We're here to help explain the difference between various types of fat. By the end of this section, you'll have a better understanding of how fats fit into a healthy lifestyle with diabetes.

Fat may be the second most important nutrient for people with diabetes to monitor in their diets behind carbohydrate. The fat you eat has an effect on weight management, which is a goal for many people with type 2 diabetes, and cardiovascular health. All fats, regardless of type, are high in calories, so it's important to keep an eye on portion size when eating foods that contain fat.



REMEMBER

The *type* of fat you eat is more important than the total amount of fat. There are healthy and unhealthy kinds of fat. Healthy fats include unsaturated fats (both monounsaturated and polyunsaturated) and omega-3 fatty acids; these fats have heart-protective properties. Cardiovascular (heart and blood vessel) complications are a concern for people with diabetes; limiting the intake of saturated and trans fats — the unhealthy fats — and choosing healthy fats instead is a step toward reducing the risk of heart disease in people with diabetes.

The following sections give you some examples of each kind of fat to help you understand which fat-containing foods to incorporate into your diet and which foods you may want to avoid.

Unhealthy fats

Saturated and trans fats are known as the unhealthy fats. Saturated fats raise your blood cholesterol levels, which is a risk factor for heart disease. People with diabetes are already at an increased risk for cardiovascular complications, but you

can help protect your heart by eating less saturated fat and replacing the sources of saturated and trans fats in your diet with healthy fats. But the first step toward making that change is to identify the sources of unhealthy fats. Some examples of foods that contain saturated fats include the following:

- » Butter
- » Cream and cream sauces
- » Chocolate
- » Coconut and coconut oil
- » Fatback
- » Full-fat dairy products (cheese, ice cream, sour cream, whole and 2 percent milk)
- » Gravies
- » High-fat, highly processed meat (bacon, ground beef, hotdogs, sausage, spareribs)
- » Lard
- » Palm oil and palm kernel oil
- » Poultry skin

Limiting these foods can reduce your risk of heart disease. A general goal is to aim for less than 10 percent of your daily calories to come from saturated fat, which amounts to roughly 13–22 grams of saturated fat per day depending on your calorie needs. Check with your healthcare provider or a registered dietitian (RD) or registered dietitian nutritionist (RDN) to see if this goal is appropriate for you. When shopping for fat-containing foods, check the nutrition label; foods with 1 gram of saturated fat or less are generally considered low in saturated fat.

Trans fats, also called trans fatty acids, are processed fats that are created by turning liquid fats, such as vegetable oils, into solid fats. There are naturally occurring trans fats, but most trans fats you see in products on the market are added to foods during processing. The primary source of trans fats is partially hydrogenated oil. Trans fats used to be found in many products, including margarines and butterlike spreads and baked goods such as biscuits, cakes, cookies, frozen pizza, and pie crusts. Trans fats are being removed from the food supply because, in 2015, the U.S. Food and Drug Administration determined that trans fats were not “generally recognized as safe.” Food manufacturers have until 2018 to fully remove trans fats from foods. Generally speaking, all people should avoid trans fats. So, check food labels and look for products with zero trans fats.

Healthy fats

Monounsaturated fats, polyunsaturated fats, and omega-3 fatty acids are healthier choices than saturated and trans fats (see the preceding section). Monounsaturated and polyunsaturated fats are considered healthy because they have the ability to lower LDL or bad cholesterol. This is great news for people with diabetes (and the general population) because high LDL cholesterol is a risk factor for cardiovascular complications. Sources of unsaturated fats include vegetables, nuts, and seeds.

You'll find monounsaturated fats in the following foods:

- » Avocados
- » Canola oil
- » Nuts (almonds, cashews, peanuts, and so on)
- » Olives and olive oil
- » Peanut butter and peanut oil
- » Sesame seeds

Sources of polyunsaturated fats include the following:

- » Corn oil
- » Cottonseed oil
- » Mayonnaise
- » Pumpkin seeds
- » Safflower oil
- » Salad dressings
- » Soft margarines
- » Soybean oil
- » Sunflower oil and seeds
- » Walnuts

Omega-3 fatty acids can improve heart health by reducing the risk of clogged arteries. The primary sources of omega-3 fatty acids are fish and some plant foods — canola oil, flaxseeds and flaxseed oil, soybean products, and walnuts. Fish that are high in omega-3 fatty acids include the following:

- »» Albacore tuna
- »» Herring
- »» Mackerel
- »» Rainbow trout
- »» Salmon
- »» Sardines

So, enjoy a few servings of (nonfried) fish per week to take advantage of the benefits of heart-healthy omega-3 fatty acids!

The Do's and Don'ts of Dairy

Dairy products contain calcium and vitamins that are important for a healthy body. Including dairy in your diet is a great way to build strong bones and get some high-quality protein. But dairy products also contain saturated fat (see the “Unhealthy fats” section earlier in this chapter), so it’s important to pay attention to the serving sizes of these products. Low-fat and fat-free milks and yogurts may be good dairy choices for people with diabetes, especially when chosen instead of higher-fat options like half and half, cream, butter, cheese, and sour cream. If you don’t like milk or are lactose intolerant, fortified milk substitutes such as almond milk, soy milk, or rice milk can be a good source of calcium and vitamin D.



TIP

If you’re used to higher-fat dairy products, it may take a little while to get used to the taste of low-fat dairy. You can make the transition slowly. For example, if you use whole milk in your coffee or cereal in the morning, try switching to 2 percent milk and then transition to fat-free milk if you choose.

What Can I Drink?

Just as some foods are better for you than others when you have diabetes, some drinks are better for you than others. The drinks you choose can either support or hinder your healthy food choices.



REMEMBER

Don’t forget the nutrients in your drinks! Liquid calories and carbohydrates still count and can affect your blood glucose and weight. Choose the best drink options to keep your healthy eating on track.

Steering clear of sugary beverages

Drinks that are sweetened with sugar such as regular sodas, fruit drinks and juices, energy drinks, and sweet teas will increase your blood glucose faster than most foods and can make it much harder to get to your blood glucose goals. If you love regular sodas, you're not alone; reducing soda intake is a goal for many people who are diagnosed with type 2 diabetes. But it's important to choose zero- or very low-calorie drinks instead of regular sodas. Each serving of regular soda contains a large amount of carbohydrates, which raises your blood glucose, and can contribute more than 100 calories to your diet. These numbers add up! Just a few servings of high-calorie, high-carbohydrate drinks per day can sabotage an otherwise healthy diet. If you enjoy the taste and fizz in sodas, try switching to diet sodas or sparkling water. It makes a big difference. Most diet drinks contain zero grams of carbohydrate because they're sweetened with low-calorie sweeteners, so they won't raise your blood glucose.

Many people think that fruit drinks and juices are healthy drink choices, but they can contain a lot of carbohydrate and calories as well. If you want to drink a glass of fruit juice now and then, watch your portion size. Or, if you're craving fruit juice, try a glass of water flavored with a squeeze of lemon or lime juice instead. You may also be able to curb your craving with a fresh piece of fruit. Fruits still contain calories and carbohydrates, but whole fruits have fiber that fruit juices don't provide. Your best bet is to chew your fruit instead of drinking it.

Choosing the best drinks

When it comes to drinks, try to stick to zero-calorie or very low-calorie drinks, including the following:

- » Water
- » Unsweetened tea (black, green, herbal)
- » Black coffee
- » Diet soda
- » Other low-calorie drinks/drink mixes (look for options with less than 10 calories and 5 grams of carbohydrate per serving)

Is alcohol off limits?

You may be surprised to read that alcohol is not off limits for people with diabetes. But moderation is key when drinking alcoholic beverages. Women should have no

more than one drink per day, and men should have no more than two drinks per day. One drink equals 12 ounces of beer, 5 ounces of wine, or 1½ ounces of distilled spirits.



TIP

Enjoy alcohol safely, especially when you have diabetes. A few easy tips and tricks can help you stay safe:

- » Don't drink on an empty stomach or replace foods in your regular meal plan with alcohol. Alcohol can lower your blood glucose level, and drinking on an empty stomach may cause you to become intoxicated more quickly. So it's a good idea to have food with your alcoholic drink.
- » When you're drinking a mixed drink, choose calorie-free mixers like diet sodas or diet tonic water to avoid extra calories and carbohydrates that will make it harder to manage your blood glucose.
- » Alcohol can lower your blood glucose level (sometime to a dangerously low level), and the symptoms of low blood glucose are very similar to and may be mistaken for the effects of alcohol. For example, both low blood glucose and intoxication can cause dizziness and confusion, hunger and nausea, fatigue and sleepiness, irritability, and other symptoms; this can make it difficult to realize if a person who has been drinking is experiencing low blood glucose. It's important for people with diabetes, especially those who use insulin, to know the symptoms of low blood glucose before leaving home and have a plan to treat lows (this should be discussed this with a healthcare provider). It's also a good idea to wear medical/diabetes identification when drinking.
- » Never drink and drive!