

Diabetes and Your Lifestyle Toolkit



Making Healthy Choices

Diabetes Basics

What is Diabetes?

Diabetes is a condition in which the body does not use food properly for energy. Many of the foods we eat turn into glucose (sugar), which our bodies use for energy. The pancreas is an organ in our bodies that produces a hormone called insulin. Insulin helps move glucose from the blood into cells so that it can be used for energy. With diabetes, your body either produces too little insulin or does not use insulin effectively (insulin resistance).

Diabetes is a lifelong condition. Whether you're newly diagnosed or have been living with diabetes for some time, taking steps toward better health can help you stay in control of your diabetes.

This toolkit will help you develop a plan around lifestyle choices. These include:

- Healthy eating: Understanding the types of foods to eat and timing of meals
- Aim for or maintain a healthy weight
- Physical activity: How to stay or become physically active
- Manage stress and learning coping strategies



Healthy Eating

When to eat: Eating at regular times will help control your blood sugars. This may also prevent low blood sugars (hypoglycemia).

- Start with breakfast. This meal should be 1-2 hours after waking up.
- Eat three main meals every 4-5 hours. Snack only when needed.
- Don't skip or delay meals.
- Be consistent with carbohydrates at meals.
- Be aware of portion size, especially when eating out.

What to eat: You do not need special foods because you have diabetes. In fact, the foods that are good for you are good for your entire family.

Foods to increase include:

- Vegetables
- Fruits
- Whole grains: whole wheat breads, cereal, oats, rice, quinoa, and pasta
- Beans and legumes
- Proteins: fish, poultry, lean beef and pork, eggs, tofu and soy, low-fat cheese, cottage cheese
- Milks: low-fat milk, milk alternatives (almond, coconut, rice, soy milk), plain yogurt
- Heart healthy fats: olive oil, nuts oils, avocado, canola oils

Foods to decrease include:

- Processed foods (chips, pastries, fast food)
- Fried foods
- Added sugar
- Sugar sweetened drinks
- High fat meats and proteins

How much to eat: Your body processes many foods you eat into sugar. With diabetes, more of the sugar stays in your blood. Eating too much food, especially carbohydrates may make your blood sugar (glucose) high, while eating too little carbohydrates may not make your blood sugar go high enough. Eating a similar amount of carbohydrates at each meal can help you manage your blood sugar. There are two methods to help you plan your meals around carbohydrates:

1. Plate Method
2. Carbohydrate Counting

You can use one of the methods of meal planning, or a combination of both. The key is to be consistent with the amount of carbohydrates you eat.

Meal Planning Method 1: Plate Method

How does it work?

1. Use a 9-inch plate
2. Fill $\frac{1}{2}$ of the plate with non-starchy vegetables such as:
 - Spinach, salad mix, broccoli, cauliflower, cabbage, asparagus, green beans, cucumbers, peppers, carrots
3. Fill $\frac{1}{4}$ of the plate with grains or starchy foods such as:
 - Whole grain breads, high fiber cereal, oats, barley, quinoa, grits/polenta, pasta, brown rice, tortillas
 - Beans, peas, corn, potatoes, sweet potatoes, winter squash
4. Fill the last $\frac{1}{4}$ of plate with proteins such as:
 - Tofu, tempeh, veggie burgers, seitan
 - Eggs, cottage cheese, low-fat cheese
 - White meat chicken and turkey, no skin
 - Fresh water fish and shellfish
 - Lean beef and lean pork
5. Add a piece of fruit, and a glass of milk at each meal
6. Add healthy fats in small amounts such as:
 - Olive oil, nuts, seeds, avocados, vinaigrettes

What if my meal isn't served on a plate?

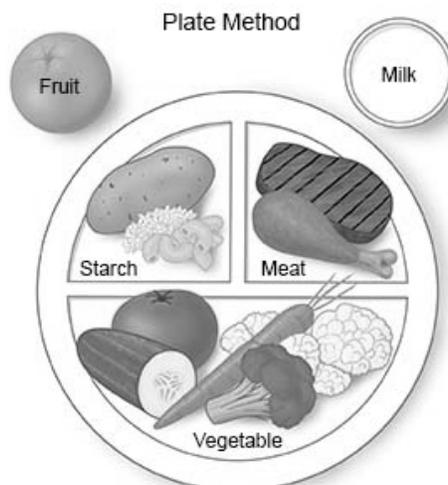
Some meals come in a bowl or cup which can complicate this way of eating. Think about your meal as percentages: 50% non-starchy vegetables, 25% starchy foods and 25% protein foods. An example of this could be chicken noodle soup. Use proportions of non-starchy vegetables, noodles and chicken similar to what you would find on a plate. Or, have a cup of soup rather than a bowl and include a side salad.

How does this work with mixed dishes such as tacos and pizza?

Some meals combine multiply ingredients into one item. For example, tacos are mostly protein (beef or chicken) and tortillas. Simply fill half your plate with that combination food, and fill the other half with vegetables such as fajita peppers, and onions.

Where does dessert fit?

To include sweets, cut back on other carbohydrate foods at that meal. For example, if you plan to have cake, skip the fruit, and/or starchy food. Increase the vegetables if you are still hungry. This substitution allows you to keep the carbohydrates about the same at the meal.



Meal Planning Method 2: Carbohydrate Counting

How many carbohydrates should I eat? The amount of carbohydrates you need depends on your diabetes goals, calorie needs, and activity level. General recommendations for carbohydrate counting are:

- Start with 30-45 grams per meal for women
- Start with 45-60 grams per meal for men
- 15 – 20 grams per snack

Some men and very active people may require more carbohydrates than these recommendations. Work with your dietitian or diabetes educator to find the right amount of carbohydrates you'll need at each meal or snack.

What foods contain carbohydrates?

- Starches: Grains, starchy vegetables, beans
- Fruit and fruit juice
- Milk and yogurt
- Sweets, desserts, sugary drinks, added sugars

One single serving from the groups below equals about 15 grams of carbs

Starches

- ¼ large bagel
- 1 slice bread
- ½ pita or English muffin
- ½ hamburger bun
- 1 6-inch tortilla
- ½ cup sweetened cereal
- 1/3 cup cooked pasta, rice, or cous cous
- ½ cup cooked oats
- ½ cup beans
- ½ cup peas or corn
- ½ cup potatoes or sweet potatoes
- 1 cup winter squash
- 4-6 crackers
- 3 graham cracker squares
- 3 cups air popped popcorn

Fruits

- 1 small apple
- 1 small banana
- 1 cup berries
- ½ cup grapes or cherries
- 1 cup melon
- ½ grapefruit
- 2 T. dried fruit (raisins or cranberries)
- 1 small pear
- ½ cup fruit juice
- ½ cup canned fruit (in juice)
- ½ mango
- 3 dates or dried plums

Milks

- 1 cup low-fat milk
- 1 cup unsweetened milk alternative (soy, almond, coconut, rice)
- 6-8 oz. plain yogurt

Combination Foods

- 1/2 cup casserole
- ½ cup chili with beans
- 1 slice thin-crust pizza
- ½ cup noodle soup
- 1 cup bean soup
- 1/3 cup hummus

Sweets

- 1 T. table sugar or honey
- 1 T. jam or jelly
- 5 vanilla wafers
- 2x2 inch piece of unfrosted cake
- 1 frozen fruit juice bar
- ½ cup frozen yogurt or light ice cream
- ½ cup sugar free pudding
- * **sugar free does not mean carbohydrate free**

Meal Planning: Portion Control and Label reading

Portion Control:

Staying within recommended portion sizes will help you stay consistent with your calorie and carbohydrate intake. Use measuring cups and spoons to help you become familiar with recommended amounts of foods. You won't need to measure foods every time you eat, but it's worthwhile as you learn about carbohydrate basics.

When you can't measure, you can estimate:

- 3 ounces of meat = a deck of cards
- 1 medium piece of fruit = a tennis ball
- 1 cup of food (i.e. casserole) = the size of your fist
- 1 teaspoon of butter or oil = the tip of your thumb
- 1 snack serving = cupped hand
- 1 ounce of cheese = 4 stacked dice

Using a food label to count carbohydrates:

1. Check the serving size
2. Check total carbohydrates (not just sugar)
3. Look for higher fiber options:
 - Compare fiber amounts between similar foods
 - Look for 3 grams or more per serving
 - Aim for a total 25-38 grams of fiber per day
4. Compare the serving size to your actual portion
5. Calculate the amount of total carbohydrate in your portion

Additional Considerations:

Remember, your targets for carbs at meals and snacks

30-45 grams for women per meal

45-60 grams for men per meal

15-20 grams per snack

***Sugar free and no sugar added** do not mean carbohydrate free- check the label.

***Limit unhealthy fats.** Saturated and trans fats raise your cholesterol and increase your risk of heart disease.

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per 2/3 cup	
Calories	230
% DV*	
12%	Total Fat 8g
5%	Saturated Fat 1g
	<i>Trans Fat</i> 0g
0%	Cholesterol 0mg
7%	Sodium 160mg
12%	Total Carbs 37g
14%	Dietary Fiber 4g
	Sugars 1g
	Added Sugars 0g
	Protein 3g
10%	Vitamin D 2mcg
20%	Calcium 260mg
45%	Iron 8mg
5%	Potassium 235mg
* Footnote on Daily Values (DV) and calories reference to be inserted here.	

Aim for a Healthy Weight

If you're overweight, even a small amount of weight loss can help you control your blood sugar. Making gradual changes that you can stick with is the key to long term success.

- **Track foods:** Keep a record of the foods you eat, the portions and your physical activity. Consider online tools and apps that can help you keep track:
 - MyFitnessPal
 - Livestrong
 - Fit Bit
 - Dlife.com
 - MyNetDiary
- **Exercise:** Aim for at least 30 minutes per day.
 - Consider exercising for shorter times but several times a day if you are low on time.
 - Choose an activity that you enjoy. Think about what you CAN do instead of what you can't do.
- **Portion Control:** Keep your portions reasonable.
 - Be aware that many restaurants serve portions that are 2-3 times (or more) the amount of a recommended serving size. Consider splitting meals.
 - Try using a smaller plate. Put your entrée on a salad plate and your salad on a dinner plate.
 - Avoid eating in front of the TV, computer, in the car, or at your work desk.
- **Plan meals and snacks:** Prepare meals ahead of time and freeze to use throughout the week
 - Keep low calorie, high protein bars or shakes in your bag or car when you need a back-up option.

Counting calories along with carbohydrates: Use this guide to help you figure out the amount of carbohydrates you should eat to help you stay within your calories for weight loss.

Your Starting Weight	Calorie Goal
250 pounds or less	1200-1500
More than 250 pounds	1500-1800

Carbohydrate Totals	1200 calories	1500 calories	1800 calories
Per day	120-160 grams	150-190 grams	200-250 grams
Per meal	30-45 grams	30-45 grams	60-75 grams
Per snack	0-5 grams	15-20 grams	15-30 grams

Physical Activity

Regular activity is an important part of managing your diabetes. Consistent activity can help you manage your daily glucose (sugar) levels as well as decrease your A1C.

Physical activity CAN:

- Increase uptake of sugar by muscles for 24-48 hours after exercise
- Increase the effectiveness of your insulin
- Burn extra calories to promote weight loss
- Strengthen your heart and lungs
- Improve cholesterol and lower triglycerides
- Improve the quality of your sleep
- Decrease stress and emotional tension
- Strengthens muscles and bones
- Improve flexibility and balance
- Lower blood pressure
- Reduce symptoms of depression and improve quality of life

Types of Activity:

Aerobic: this form of activity helps your body use insulin better. It improves heart health, builds endurance, improves blood circulation, and reduces stress. Some aerobic activities include:

- Walking
- Swimming
- Cycling
- Running
- Hiking
- Cross country and downhill skiing
- Dancing
- Aerobics class

Amount recommended:

Aim for 30 minutes of moderate intensity* activity at least 5 days per week or a total of 150 minutes per week, or 75 minutes per week of vigorous activity*. Try to spread out the activity over at least 3 days per week, and try not to go more than 2 days in a row without exercising. If you haven't been active for a while, you can start out with 10 minutes per day. Increase days per week that you're active, and eventually increase the time during each session. You'll notice that over time your endurance will improve.

*Moderate intensity means that your heart rate has increased and you're breathing harder, but can still hold a conversation. Vigorous activity means that your heart rate is significantly faster and your breathing hard enough that it's difficult to speak full sentences.

Making time:

If your schedule doesn't allow you to exercise for 30 minutes at one time, you can break it up into smaller, 10 minute sessions throughout the day. Research supports that smaller bouts of activity can provide similar results as one longer session.

Physical Activity

Strength Training: this activity makes your body more sensitive to insulin and builds strong bones and muscles. The more muscle mass you have, the more calories you burn.

Examples of strength training include:

- Working out with weight machines or free weights
- Using resistance bands
- Lifting objects at home such as water bottles, canned goods
- Using your own body weight such as pushups, sit ups, wall squats, planks, and lunges

Amount recommended: At least 2 times per week in addition to aerobic activity.

Safety considerations: If you're taking insulin or medications that can cause low blood sugar (hypoglycemia), test your blood sugar 30 minutes before exercise.

Exercise and examples	If blood sugar is:	Increase food intake by:	Suggested food
Exercise of short duration and low to moderate intensity Examples: walking 1/2 mile or leisurely biking less than 30 minutes.	Less than 100 mg/dl	10–15 grams of carbohydrate	1 small fruit or 1/2 cup juice
	100 mg/dl or above	Not necessary to increase food	
Exercise of moderate intensity Examples: tennis, swimming, jogging, leisurely cycling, golfing, gardening, or vacuuming for one hour.	Less than 100 mg/dl	25–50 grams of carbohydrate before exercise, then 10–15 grams per hour of exercise (if needed)	1/2 sandwich and 1 cup milk or small fruit
	100–180 mg/dl	10–15 grams of carbohydrate	1 fruit or 1 starch/bread
	181–250 mg/dl	Not necessary to increase food	
Strenuous activity or exercise Examples: football, hockey, racquetball, basketball, strenuous cycling, or swimming.	Less than 100 mg/dl	50 grams of carbohydrate; monitor blood sugars carefully	1 sandwich and 1 cup milk and 1 small fruit
	100–180 mg/dl	25–50 grams of carbohydrate depending on intensity and duration	1/2 sandwich and 1 cup milk or small fruit
	181–250 mg/dl	10–15 grams of carbohydrate per hour of exercise	1 small fruit or 1/2 cup juice

Managing Stress and Coping Strategies

Understanding Stress:

Stress is a part of life. It is the way we react physically, mentally, and emotionally to the demands of life and to changes in our lives.

Causes of stress: Can be both positive and negative in response to situations such as:

- Fear and worry
- Financial issues
- Life changes (marriage, childbirth, divorce, death, etc)
- Reaction to the unknown (moving, new job, illness)
- Life issues (work pressure, traffic)

Stress and Diabetes: Stress can raise your blood sugar. Additionally, it may be harder to closely follow your usual routine if you're under a lot of extra pressure. Whether or not you have diabetes, over time stress can negatively affect both physical and emotional health.

Symptoms of Stress:

- Rapid heart rate
- Shoulder stiffness
- Trembling, shakiness
- Sleeping too little or too much
- Changes in appetite
- Trouble with concentration
- Irritability
- Feeling depressed
- Stomach problems (nausea, diarrhea, constipation)
- Sweating
- Headaches
- Rise in blood pressure
- Rise in blood sugar

Check your stress levels

The primary sources of negative stress in my life are:

- | | |
|---|--|
| <input type="checkbox"/> Work pressure | <input type="checkbox"/> Caring for a relative |
| <input type="checkbox"/> Illness | <input type="checkbox"/> Problem with child |
| <input type="checkbox"/> Finances, debt | <input type="checkbox"/> Changing lifestyle habits |
| <input type="checkbox"/> Testing my blood | <input type="checkbox"/> Other: _____ |

I would rate my current stress level as:

- Normal (what you would expect from daily life)
- Moderate (occasional stressful periods)
- High (feel stress much of the time)
- Very high (feel stress almost all of the time)

The time of day when I usually feel the most stress is:

- Morning
- Midday
- Evening
- Bedtime

Managing Stress and Coping Strategies

Coping with stress: We all respond differently to life's stressors. Be aware if you are coping in negative ways such as smoking, drinking alcohol, overeating, or isolation. We cannot always control or change what happens in our lives, but we can control how we deal with it.

Know your triggers: These are different for everyone. There are major triggers such as health concerns, finances, and death of a loved one and smaller triggers such as traffic jams, running late for work, or an unexpected deadline at work. Big or small, it is important to recognize what triggers stress in your life.

Take control: Have a plan in place. Some coping strategies include:

- | | |
|-----------------------------------|---|
| ✓ Exercise | ✓ Learn to say NO |
| ✓ Get plenty of rest | ✓ Take up a hobby |
| ✓ Practice relaxation techniques | ✓ Have spiritual activities |
| ✓ Practice positive self-talk | ✓ Volunteer to help others |
| ✓ Maintain a well-balanced diet | ✓ Talk with someone about your concerns |
| ✓ Avoid being a perfectionist | |
| ✓ Keep a journal of your feelings | |

Ask for help: It's hard to do this alone. Find support that can help you work around stressors.

- | | |
|----------------------|---------------------------|
| ✓ Family and friends | ✓ Community groups |
| ✓ Co-workers | ✓ Professional counseling |
| ✓ Health care team | |

Be specific: Communicate how you need support with stress. Others can't help you if they don't know how. Some examples of the support you may need may include:

- | | |
|-----------------------------------|---|
| ✓ "Listening to my concern" | ✓ "Don't judge me" |
| ✓ "Help me with following a plan" | ✓ "Go to doctor's appointments with me" |
| ✓ "Exercise with me" | |

Resources to Help You Relax:

Wellness Coaching by Phone: Call 1-866-862-4295 to make an appointment.

In addition to stress management, this wellness coaching can also help with:

- | | |
|--------------------|--------------------|
| •Weight Management | •Tobacco Cessation |
| •Physical Activity | •Healthy Eating |

Center for Complementary Medicine: <http://www.kpccm.org/>

- Mindfulness-Based Stress Reduction:** Improve your ability to manage the physical and psychological symptoms associated with chronic illness, chronic pain, anxiety, depression, and stress-related conditions using meditation and stress reduction techniques. To make an appointment, call **844-800-0788**

Stress Management eLearning Modules on www.kphealthyme.com: this is a good starting point for developing resilience and taking control of stress.

Additional Resources

Diabetes Classes:

Our diabetes educators will help you manage blood sugar, make wiser food choices, and learn the most important lifestyle habits to maintain and improve your health. Classes are available in-person or online.

- **Diabetes: Learn to Take Charge Class-** Join us for this 2-part class to learn about daily self-care, controlling blood sugar and making wise food choices. Sessions are for two consecutive weeks and 2 hours in length.

- To register, call 303-338-4545. Members only (may bring one guest).
- Visit www.kphealthyme.com for current class schedules

Online Resources: www.kphealthyme.com - this is the official website supported by KP dietitians. You will have access to education materials including: carbohydrate counting, sample menus and meal plans, and food records.

- **Recorded Webinars:** View any or all of this webinar series for how to "take charge" of your diabetes:

- What is Type 2 Diabetes?
- Diabetes Medications and Blood Sugar Monitoring
- Goal-Setting and Self-Care
- Carbohydrates and Meal Planning
- Meal Timing and Healthy Snacks

- **E-Learning Modules:** Use this online course to learn how to manage your carbs with the Plate Method, the basics of carb counting and reading nutrition labels.

Other Websites:

American Diabetes Association (ADA): diabetes.org

Current research and information for managing diabetes. Links to local state-affiliated sites.

American Academy of Nutrition and Dietetics: eatright.org

Includes listing for nutrition resources and responses to frequently asked questions about the association and nutrition.

Calorie King: calorieking.com

Products, computer software and services to help with carb counting, physical activity and weight management.

dLife.com: dLife.com

Interactive website for people with diabetes.

Diabetes Net: diabetesnet.com

Home page hosts a "Diabetes Mall" filled with information on the care and management of diabetes. The "Mall" advertises materials that can be ordered by mail, phone, or via the Web.