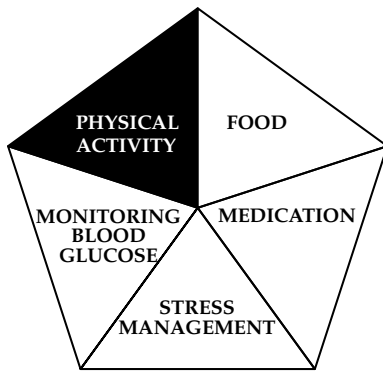


Chapter 5: Physical Activity and Exercise



Physical activity and exercise are important for everyone, but especially for people with diabetes. They can lower your blood glucose level and help your body use insulin better. Other benefits include:

- lowering blood pressure
- decreasing **bad** cholesterol and increasing **good** cholesterol
- improving strength and endurance
- increasing flexibility and balance
- making it easier to maintain your weight
- helping you to feel better and have more energy
- more confidence and independence
- reducing stress
- decreasing your risk of dementia
- better quality sleep.

Differences Between Activities and Exercise

Did You Know?

Exercise also has mental health benefits. Exercise can improve your:

- mood
- sleep
- attitude
- and more!

Activities are things you do each day such as walking to your car, making a meal, or doing a hobby or housework. These keep your body moving throughout the day.

Exercises are physically exerting movements done to make your muscles, heart and lungs stronger. They must go above and beyond what you do in your daily routine. For example, going to the grocery store is not exercise but going to the mall to intentionally walk would be considered exercise.

Your daily activities are important but regular exercise is needed for all of the benefits listed above.

Exercise Guidelines

Remember the following exercise guidelines.

- Check with your health care provider before starting a program.
- Avoid outdoor exercise in very hot or cold temperatures.
- Start your exercise slowly by stretching and warming up (a slow pace of exercise for 5 minutes). Finish your exercise by cooling down (a slower-paced exercise for 10 minutes).
- Do not exercise if you have type 1 diabetes and your blood glucose is more than 250 mg/dL.
- If you take insulin or sulfonylurea, carry candy or glucose tablets with you during exercise to use if your blood glucose gets below 80 mg/dL or if you have symptoms of low blood glucose.
- Check your blood glucose before and after exercise if you take insulin or a sulfonylurea. If your glucose level is less than 100 mg/dL before you start to exercise, have a piece of fruit, ½ cup of fruit juice or any other food that can give you 15 grams of carbohydrate.
- If you have low blood glucose two times a week before or after exercise, be sure to check with your health care provider or diabetes educator to see if you need a change in your diabetes medicine.
- Check your feet for signs of blisters, redness or injury. Do not exercise until your feet have healed.

Types of Exercise

Tip

To tell how hard you are exercising you can use the “talk test.” This is your ability to have a fairly normal conversation while exercising. If you can sing, you need to work a little harder. If you have trouble talking, you need to slow down.

Tip

Drink water before, during and after exercise.

There are four types of exercise, including:

- **aerobic (cardiorespiratory):** Aerobic exercise continues for a period of time (at least 10 minutes) without rest. In order to be considered “aerobic,” an exercise must cause you to experience one or more of the following:
 - make you mildly short of breath
 - increase your heart rate
 - cause you to sweat.

The National Institute on Aging (NIA) recommends that all adults have at least 150 minutes of aerobic exercise each week. It is best for you to do aerobic exercise 5 to 7 times each week.

- **strength training:** Strength training applies resistance to your muscles which can increase strength, reduce body fat and improve bone health. It is important that you increase the amount of resistance over time. Examples include using:
 - elastic bands
 - cuff and hand weights
 - weight machines.

You can even use your own body weight to increase strength!

The American College of Sports Medicine (ACSM) recommends that all adults do strength-training exercises at least 2 times each week with at least 1 day of rest in between. As you strength train:

- make sure to include exercises that target your largest muscles in your upper and lower body
- use enough weight for your muscles to be tired between 8 and 15 repetitions
- increase the amount of weight you are lifting when you can do 15 repetitions or more.

Tip

Examples of exercise are:

- swimming
- rowing
- jogging
- walking
- biking
- low-impact aerobics.

- **balance exercises:** Balance exercises can help to improve your steadiness, reaction time and mobility. Examples include dancing, yoga, Tai Chi and even standing on one leg.

The ACSM recommends to do 20 to 30 minutes of balance exercises 2 to 7 times each week.

- **stretching:** Stretching can help to improve flexibility and reduce joint and muscle stiffness. Being more flexible will help you move more freely to do your daily activities.

According to the ACSM, stretching should be done 3 to 7 times each week. Hold each stretch for 10 to 30 seconds and repeat 2 to 4 times. Make sure to relax and breathe. Do not hold your breath or bounce as this could cause an injury.

Example: Weekly Exercise Program

The following page shows an example of how you could plan out 1 week of aerobic exercise, strength training, balance exercises and stretching. Use this as a guide as you plan your exercise program each week. It is important that you plan different exercises (or different combinations of exercises) to continue to build and maintain your muscles and bones.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	30 minutes aerobic exercise	30 minutes aerobic exercise		30 minutes aerobic exercise	30 minutes aerobic exercise	30 minutes aerobic exercise
	Strength training		Strength training		Strength training	
		20 to 30 minutes balance exercise	20 to 30 minutes balance exercise		20 to 30 minutes balance exercise	20 to 30 minutes balance exercise
	Stretching	Stretching		Stretching		Stretching

Here are some examples of activities you can do for each type of exercise:

Aerobic Exercise	Strength Training	Balance Exercise	Stretching
<ul style="list-style-type: none"> ■ walking ■ biking ■ swimming ■ dancing ■ aerobics ■ cardio equipment (treadmill, elliptical, bike) 	<ul style="list-style-type: none"> ■ upper body exercises ■ lower body exercises ■ core (abdominal) exercises ■ variety of upper, lower and core exercises 	<ul style="list-style-type: none"> ■ standing exercises ■ Tai Chi ■ Qigong ■ head movements and eye exercises 	<ul style="list-style-type: none"> ■ flexibility exercises ■ Pilates ■ yoga ■ chair yoga

How to Stick With an Exercise Program

If you've tried an exercise program in the past that didn't work, don't get discouraged. You can start — and stick with — an exercise program!

- Set a routine. Aim for getting at least 30 minutes of physical activity most days. For example, go for a 30-minute walk at 9 a.m. Or, you can break it up into chunks. Go for a 15-minute walk in the morning and do 15 minutes of strength training in the afternoon.
- Set goals that are specific and realistic. You can't go from no exercise to walking 5 miles a day overnight. Start by walking around the block once or twice. The more exercise you do, the stronger you'll get.
- Exercise with a buddy to help keep you accountable.
- Choose activities you enjoy. Find several activities you can do all year such as walking, bike riding, lifting weights or dancing, so you won't get bored.
- In addition to exercise, try to sneak bits of other activity into each day.
 - Park your car at the end of the parking lot and walk to the store.
 - Take the stairs instead of an escalator or elevator.
 - Get up and walk around every hour if you have a job or hobby that involves sitting.
- To get the right amount of activity through walking, most people need to take about 10,000 steps a day. The average person takes between 700 and 2,500 steps a day! You can buy an inexpensive pedometer or track through an app on your phone to count your steps.
- If you break your new routine, don't be too hard on yourself. Figure out what derailed you and get back on track.

Making Changes and Goal Setting

SMART goals

Making changes can be challenging — but it's possible! Changing everything at once can be overwhelming, which is why it's best to set smaller, attainable goals.

Learning to set SMART goals can help you be successful.

S **Specific:** What would you like to do?

M **Measurable:** How will you know when you've done it?

A **Attainable:** Is it something you are able to do?

R **Relevant:** Is it important to you?

T **Time-bound:** When is the deadline?

SMART goal example

Here is an example of a SMART goal.

S I would like to eat healthier.

M I will know I'm eating healthier when I'm eating three servings of vegetables every day.

A I will accomplish my goal by keeping easy-to-grab, single-serving containers of fresh vegetables in my refrigerator.

R It's important for me to eat healthier to have enough energy to keep up with my busy schedule.

T I will start eating healthier on Monday, after I've done my weekend grocery shopping.



Tip

Make sure you're celebrating your successes (big and small) as you work toward your goals!

It's your turn!

Now that you know how to set goals it's your turn to try! Write down a goal to work on this week using what you've learned about SMART goals.

S

M

A

R

T
