

# DIABETES AND EXERCISE: *THE BASICS*

## BENEFITS OF EXERCISE FOR PEOPLE WITH DIABETES:

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- » **Reduces** risk of heart disease and early death
- » **Improves** blood sugar control in Type 1 and Type 2 Diabetes
- » **Helps** with weight loss and/or weight maintenance
- » **Reduces** risk of heart disease and early death
- » **Improves** strength, bone density, mobility, balance, sleep, and brain function

## BEFORE YOU START AN EXERCISE PROGRAM:

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- » You should **contact your primary care provider** before starting any exercise program, especially if you have been inactive or aren't used to exercising
- » Make sure you have shoes that **fit well** and **aren't too tight** or **too loose**

## PHYSICAL ACTIVITY RECOMMENDATIONS:

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- » Your goal should be to do **150 minutes of moderate-intensity aerobic exercise**, spread out over the course of **3-4 days each week**. That means you'll exercise for about 40-50 minutes on the days you are active
- » Days off are important, but **don't go more than two days in a row without exercise**
- » In addition to the aerobic exercise each week, you should also do resistance exercises **two times each week**. Your resistance exercise days can either overlap with your aerobic days, or you can do your resistance work on the days you don't do aerobic exercise

# DIABETES AND EXERCISE: *WHERE TO START*

Your goal should be to do **150 minutes of moderate-intensity aerobic exercise**, spread out over the course of **3-4 days each week**. That means you'll exercise for about 40-50 minutes on the days you are active.

Days off are important, but **don't go more than two days in a row without exercise**. In addition to the aerobic exercise each week, you should also do resistance exercises **two times each week**. Your resistance exercise days can either overlap with your aerobic days, or you can do your resistance work on the days you don't do aerobic exercise.

Here's a sample weekly schedule you could follow:

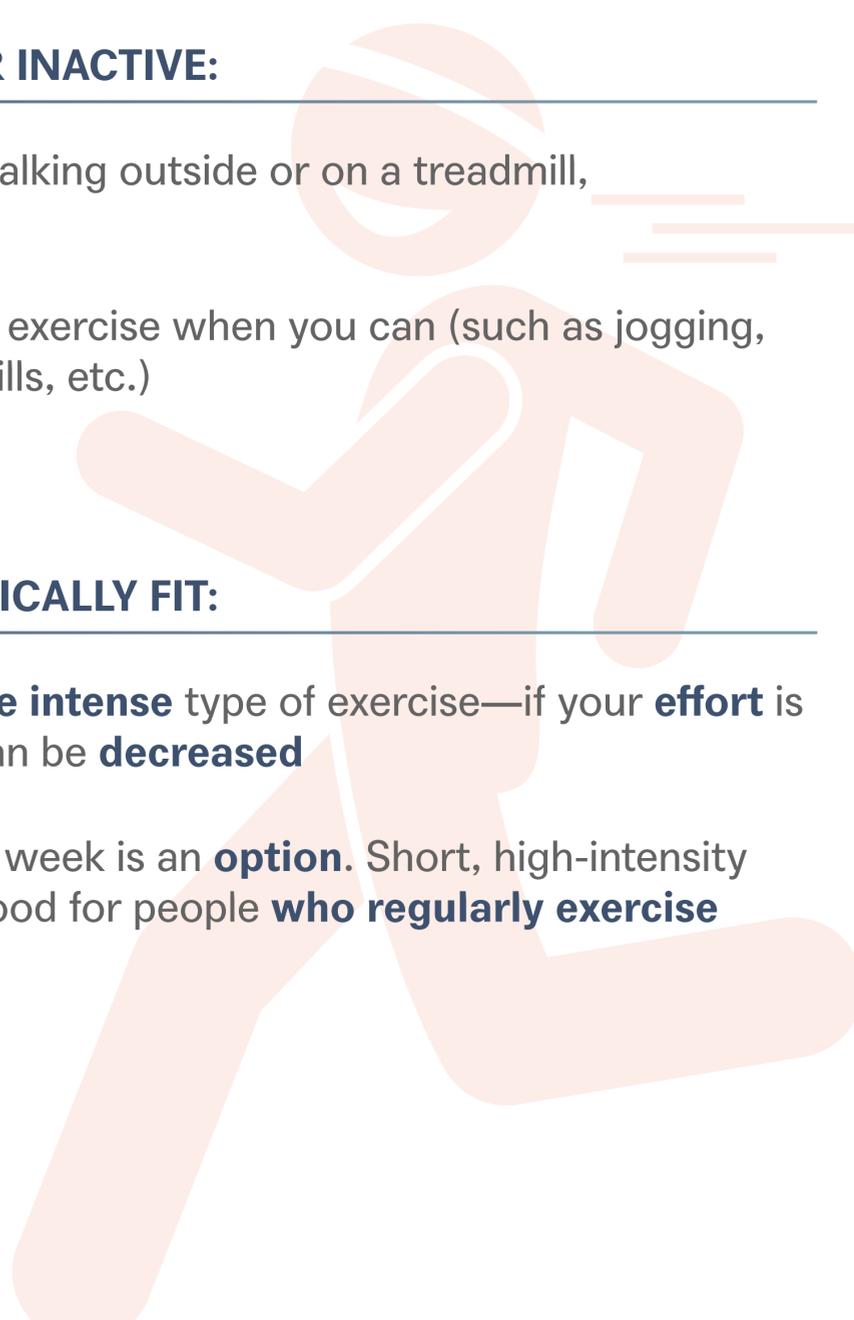
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Aerobic exercise	Resistance training	Aerobic exercise	Day off	Aerobic exercise	Aerobic exercise and resistance training	Day off

## FOR PEOPLE WHO ARE SEDENTARY OR INACTIVE:

- » Begin a **gentle** exercise program (walking outside or on a treadmill, for example)
- » **Slowly increase** to a higher level of exercise when you can (such as jogging, lifting light weights, or walking up hills, etc.)

## FOR PEOPLE WHO ARE ALREADY PHYSICALLY FIT:

- » You may want to do a **shorter, more intense** type of exercise—if your **effort is increased**, the **time** you exercise can be **decreased**
- » 75 minutes of vigorous exercise per week is an **option**. Short, high-intensity exercises have been shown to be good for people **who regularly exercise**



# DIABETES AND EXERCISE: SAMPLE EXERCISE PLANS

Sometimes, it can be hard to know where to start with exercise. Below, we have included some **sample exercise plans** to help get you started. Below are general recommendations, but any amount of physical activity counts. Remember, several short rounds of exercise can be done instead of one long exercise routine.

AEROBIC EXERCISES (3-4 TIMES PER WEEK)	RESISTANCE EXERCISES (2 TIMES PER WEEK)
Fast-paced or brisk walking (10,000 steps per day)	Pilates
Walking uphill	Resistance bands
Running or jogging	Body weight (slow, controlled moves)
Cycling or biking	Light to moderate free weights
Swimming	Weight machines
Dancing	Medicine balls or sandbags

## SAMPLE PLAN FOR AEROBIC EXERCISE:

- » Start by **stretching** and **warming up** the body for **10 minutes**.
- » Complete **20 minutes** of gentle aerobic exercise.
- » Finish by **stretching** and **cooling down** the body for **10 minutes**.

## SAMPLE PLAN FOR RESISTANCE EXERCISE:

- » Start by **stretching** and **warming up** the body for **10 minutes**.
- » Do each exercise **10 times per set**, targeting the large core muscles, and upper and lower body.
- » Start with **1-2 sets** and then do more as you get stronger.
- » Finish by **stretching** and **cooling down** the body for **10 minutes**.

# DIABETES AND EXERCISE: *EXERCISING SAFELY WITH DIABETES*

## **BLOOD SUGAR CONCERNS:**

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- » Increase fluid intake before, during, and after exercise.
- » Measure blood sugar before, during, and after exercise.
- » Follow the “15-15 rule” if your blood sugar is less than 100.
- » As a person increases their activity, the need for oral and injectable medications may lessen. Monitoring blood sugar regularly while you exercise is an important way to recognize these changes. If you see changes in your blood sugar as you exercise, you should talk about it with your provider.
- » Have a snack nearby in case of low blood sugar. (This probably won't be needed for people who only take oral medication for diabetes management.)

## **PEOPLE USING INSULIN:**

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- » Plan to exercise at around the same time each day in relation to eating meals and insulin injections. This will keep your insulin levels steady.
- » Have a fast-acting sugar (like juice) nearby in case of hypoglycemic events.
- » Inject insulin in an area of the body that isn't being focused on in your work out. For example, if you're exercising the upper body one day, inject insulin in a lower body site.

## **EYE CONCERNS:**

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- » People with diabetes that have developed Diabetic Eye Disease, especially if it involves the retina, should avoid vigorous exercises or weight-bearing exercises that require you to “bear down.”

## **FOOT CONCERNS:**

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- » People with diabetes can develop reduced feeling in their feet (and hands). Because of this, there is a higher risk for injury.
- » Before you exercise, look carefully at your feet, checking for calluses, ulcers, cuts, and sores. If you see any, avoid walking on them and get in touch with your provider.
- » After you exercise, take off your socks and shoes, and look carefully at your feet, checking for any calluses, ulcers, cuts, and sores. If you see any, avoid walking on them and get in touch with your provider. If you don't see any, clean and dry your feet, and put on a lotion or something that seals in moisture. If possible, try to avoid putting lotion between your toes because it can lead to infection. Instead put lotion on the tops and bottoms of your feet.