

## PATIENT EDUCATION RESOURCE

# Aerobic Exercise Guide

Prepared for members of Pagdin Health

Original educational content: Diabetes Canada

The original resource follows unchanged and retains its publisher attribution.

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## PAGDIN HEALTH

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*General education only - not a substitute for medical advice*

## Aerobic exercise recommendations

The Canadian physical activity guidelines recommend a minimum of 150 minutes of moderate to vigorous exercise per week. Moderate to vigorous exercise would feel like:

- Heartbeat is elevated
- Breathing harder than usual
- Muscles are working hard

If you feel a lot of discomfort, shortness of breath, pain in the chest or arms, joint pain, or lightheadedness, or have frequent low blood sugars, please stop the activity and reach out to your health care provider.

If you're not ready or able to do moderate to vigorous exercise, start with light activities and work your way up to increasing the intensity for small amounts of time.

Watch how much time you spend sitting (sedentary time) and the amount of quality sleep you get. These all help improve your health.



Aerobic exercise is continuous, repetitive movement that raises your heart rate and breathing.

When you exercise, your heart beats faster in a controlled way. This can help lower your blood pressure. It also helps your muscles use the sugar (glucose) in your blood. Aerobic and resistance exercise together help to prevent complications of diabetes such as heart disease and stroke.

## Measuring your intensity

It's important to notice how challenging the aerobic exercise is while you are doing it. With aerobic exercise, your breathing, heartbeat and muscles will be working harder than when you're not exercising. To measure the intensity of your activity, take note of your heartbeat, breathing and working muscles as referenced below.

| Measure   | Low intensity                                                                                    | Moderate intensity                                                                    | Vigorous intensity                                                                                         |
|-----------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Heartbeat | Slightly increased                                                                               | Increased                                                                             | Rapid                                                                                                      |
| Breathing | Sing along with music                                                                            | Talk but not sing                                                                     | Difficult to talk                                                                                          |
| Muscles   | Mildly engaged                                                                                   | Muscles fully engaged                                                                 | Muscles tired, burning                                                                                     |
| Activity  | Light walking, golf, gardening, dusting or sweeping, laundry, stretching, yoga, curling, bowling | Brisk walking, climbing stairs, mowing the lawn, shoveling, swimming, dancing, biking | Running, fast cycling, spin classes, hockey, basketball, circuit and high intensity training, step classes |

## Regular exercise

By doing regular exercise, you have already taken an important step in managing your diabetes. Keep exercising every week to help manage your diabetes.

NOTE: Exercise may change how your medications work for you. Make sure you test your blood sugar regularly. Speak with your diabetes care provider if you notice any differences in your regular blood sugar pattern.

## Start with a simple walking plan

If you are new to regular exercise, a walking plan may be a good place to start. Follow the plan here to gradually increase your frequency, intensity and walking time. Using a step monitor (e.g. pedometer) can be helpful in tracking your exercise. Diabetes Canada recommends a total of at least 150 minutes of aerobic exercise a week.

### Walking Plan Progression

| Program Stage | Week    | Frequency (days/week) | Exertion Level           | Duration (min) |
|---------------|---------|-----------------------|--------------------------|----------------|
| Initial stage | 1       | 2                     | Light                    | 10             |
|               | 2       | 2                     | Light                    | 10 - 15        |
|               | 3       | 2 - 3                 | Moderate                 | 15             |
|               | 4       | 3                     | Moderate                 | 15             |
| Improvement   | 5 - 7   | 3 - 4                 | Moderate - Somewhat hard | 15 - 20        |
|               | 8 - 10  | 4                     | Moderate - Somewhat hard | 20             |
|               | 11 - 13 | 4                     | Somewhat hard            | 20 - 25        |
|               | 14 - 16 | 4                     | Somewhat hard            | 25             |
|               | 17 - 20 | 4                     | Somewhat hard            | 25 - 30        |
|               | 21 - 24 | 4 - 5                 | Somewhat hard - Hard     | 25 - 30        |
| Maintenance   | 25 +    | 3 - 5 +               | Moderate - Hard          | 30+            |

Table adapted from: Warburton, et al. 2006

Start at the improvement stage if you are somewhat active and have no medical limitations. If walking is difficult for you, your diabetes care provider can help you come up with some different physical activity options.

### Advanced aerobic progression

As you get used to exercising more regularly, you may want to progress and increase your intensity. Follow the plan here to continue to increase your frequency, intensity, and walking time or to add other aerobic exercise to improve your cardiovascular fitness. Try to include aerobic exercise at least every other day.

| Program Stage | Week    | Frequency (days/week) | Exertion Level       | Duration (min) |
|---------------|---------|-----------------------|----------------------|----------------|
| Improvement   | 1 - 4   | 2                     | Somewhat hard        | 25 - 30        |
|               | 5 - 7   | 2                     | Somewhat hard        | 30 - 35        |
|               | 8 - 10  | 2 - 3                 | Somewhat hard        | 35 - 40        |
|               | 11 - 13 | 3                     | Somewhat hard - Hard | 40 - 45        |
|               | 14 - 16 | 3 - 4                 | Somewhat hard - Hard | 45 - 50        |
|               | 17 - 20 | 4                     | Hard                 | 50 - 55        |
|               | 21 - 24 | 4                     | Hard                 | 55 - 60        |
| Maintenance   | 25+     | 4                     | Moderate - Hard      | 30 - 60        |

Table adapted from: Warburton, et al. 2006

For more information, talk to your health-care team or visit [diabetes.ca](https://diabetes.ca)

**References:** Canadian Society for Exercise Physiology Guidelines



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