

Aerobic Exercise: What is it and how can I incorporate it into my exercise routine for Parkinson disease?



What is Aerobic Exercise?

Aerobic exercise is activity that makes you sweat, breathe harder, and gets your heart beating faster for 10 minutes or more. It trains your heart and lungs to deliver oxygen more quickly and efficiently throughout your body. Aerobic exercise uses your large muscle groups repetitively, and examples include biking and walking at a brisk pace either over ground or on a treadmill.

Why should people with Parkinson disease (PD) perform Aerobic Exercise?

According to the most recent research, individuals with PD who perform regular aerobic exercise may experience improved heart and lung function, improved overall ability to move, and reduced motor symptoms of the disease.

How often should people with PD perform Aerobic Exercise?

3x per week for 30-40 minutes. The first 3-5 minutes can be used as a warm-up to gradually increase your heart rate and effort. The last 3-5 minutes can be used as a cool-down to gradually decrease your heart rate and effort.

What type of Aerobic Exercise is best for people with PD?

Types of aerobic exercise include walking briskly or running over ground or on a treadmill, stationary or outdoor cycling, or using an elliptical, or other piece of aerobic exercise gym equipment. You can pick the type of exercise that you enjoy, or switch between types (i.e. walk on the treadmill on Monday, ride a stationary cycle on Wednesday, etc.)

It is important to think about how the symptoms of PD affect the type of aerobic exercise that you perform. For example, individuals who find walking difficult may select a stationary cycle to allow their heart rate to increase without the fear of falling.

Some people with PD may experience dizziness when changing positions or with hard exercise. If this happens to you, selecting a seated exercise, such as a stationary bicycle or seated exercise machine may be a safe option.

How hard should someone with Parkinson disease exercise?

For those without cardiovascular disease, the recommended target heart rate (HR) range is 70-85% of HR max, which indicates a moderate to high exercise intensity. Heart rate (HR) maximum can be calculated as $(HR_{max}=208-0.7*age)$.

For example: someone who is 65 years old:

- Estimated maximal HR: $(208-0.7*65 \text{ years}) = 162$ beats per minute (bpm)
- Target HR range = $70-85%*162 \text{ bpm} = \underline{113-138 \text{ bpm}}$

*If you are not physically active, starting at a lower time and intensity to build your fitness may be necessary.

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Determining How Hard you are Working: Considerations:

It is helpful to use the Rate of Perceived Exertion (RPE) scale in with HR to guide exercise intensity. On a 0-10 point RPE scale, a value of 5-7 is considered moderate intensity; 8 is considered high intensity. Use of an RPE scale may be more helpful than heart rate in determining exercise intensity if:

- it has been determined that you have a blunted HR response, meaning that HR does not increase as high as expected during exercise. This can happen in some people with PD.
- you are on a medication that lowers your heart rate, such as a beta blocker. Those on a beta blocker will typically not achieve as high of a HR as estimated above.

0	Nothing at all
1	
2	Very light
3	
4	Somewhat hard
5	Hard (heavy)
6	
7	
8	Very hard
9	
10	Maximal effort

Is there anything else I should know?

Aerobic exercise is safe for most people with PD. If you have heart, lung, or other medical problems, check with your doctor or physical therapist prior to initiating an exercise program. A physical therapist can help to guide you along with your exercise routine!

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