

Guidelines for Purchasing and Using Aerobic Exercise Home Equipment for People following Stroke

Aerobic exercise such as walking and cycling results in many health benefits. If you prefer to do your exercise in your home, purchasing equipment such as a treadmill or stationary cycle, may be an option for you. Home equipment can be used when it is too cold or hot and humid to exercise outdoors or when snow covered and icy surfaces increase the risk of falls.

What Type of Equipment Should I Use (Treadmill versus Stationary Cycle)?

A health care professional or staff at the rehab centre can help you to choose equipment suited to you and show you how to use it. Your choice of equipment will depend in part on your fitness level, your medical history including how the stroke has affected you, and the affordability/access to the equipment. It is important that you try out the equipment before you purchase it. The following are some general guidelines to assist you when deciding between a treadmill and a stationary cycle.

Treadmills

Pros	Cons	Requirements
<ul style="list-style-type: none"> • Walking is important for bone health • Walking in general will improve walking ability more than any other type of exercise • Can be found at most fitness and recreation centres 	<ul style="list-style-type: none"> • Generally, more expensive than stationary cycles • Take up a lot of space 	<ul style="list-style-type: none"> • You must be able to walk at and maintain the slowest speed setting of the treadmill (usually ½ mile per hour)

Stationary Cycles

There are two types of stationary cycles:

1. **Semi-Recumbent Cycle:**

It has a chair-like seat, providing lower back support. The pedals for this bike are also horizontal to the seat, rather than underneath you.



2. **Upright Cycle:** This is more like riding an outdoor bike. It does not have a back rest and requires a certain level of balance. It is more difficult to get on an upright cycle than a semi-recumbent cycle. This cycle is usually less expensive than the semi-recumbent cycle and takes up less room.



Semi-Recumbent and Upright Cycle:

Pros	Cons
<ul style="list-style-type: none"> • Cycling puts less strain on joints than walking (knees, hips, & ankles) • Provides back support that is beneficial for those with balance or back issues (semi-recumbent cycle only) • Cycling may allow some people to exercise at a higher intensity than walking, depending on how much the stroke affects your walking ability. • Cycles makes less noise and takes up less room than a treadmill. 	<ul style="list-style-type: none"> • Takes up more space compared to upright cycles • Some people may have difficulty controlling their leg or foot position during cycling. This may cause the inside of the heel to hit the side of the bike or the knee to flop to the side. This can be corrected using adaptive equipment or tying the foot onto the pedal (see other documents in this section)* • This type of exercise may not be appropriate for you if you have a heart pacemaker that responds to activity by increasing heart rate. These are called rate responsive pacemakers. Please contact your health care professional for advice.

What About Other Types of Machines?

NuStep Machines

- The cost of a NuStep machine is approximately \$5,500 - 6,000
- It is not found in most recreational centers or fitness clubs.
- The NuStep allows you to exercise using your arms and legs.
- The NuStep can be used by most people following stroke.
- Attachments can be purchased that help to secure the stroke-affected hand, leg, and foot to the bars and pedals.



Elliptical Trainers

- Exercise on an elliptical machine requires a moderately high level of fitness. Even at the slowest speed and at the easiest resistance level, many people following a stroke will find it too difficult.
- The foot plates force your legs to move back and forth in a straight line.
- Elliptical machines are found in most recreation centers and fitness clubs.
- The cost of elliptical machines range from approximately \$300 to \$3,000.



General Guidelines for Purchasing Equipment

1. Think About Your Space

It is important to ensure the exercise equipment you plan to purchase is in a suitable area with ample space, ventilation, light, and is pleasant/encouraging. Lastly, a TV, radio, or stereo system can be placed nearby to help make the environment enjoyable.

2. Test Before Buying at Centre

Do not be afraid to test the equipment out at the purchase location. This will ensure you will feel comfortable as well as safe during your exercise routine at home.

3. Listen to the Machine

When testing out the machine at the purchase location, note the amount of noise the machine makes. Exercise machines in general should allow you to listen to music, or watch TV, and should not be loud enough to disturb others.

4. Buying Equipment from a Reputable Manufacturer or Retailer

Make sure the product comes with a written warranty. Different manufacturers have different warranties. Be sure to ask the sales representative to explain the differences in policies, installations, maintenance, and servicing.

Factors to Consider When Purchasing Stationary Cycles

1. Price

Stationary bikes can range from \$200 (basic) to \$3000+ (high-end). You should expect to pay around \$500 for a durable cycle.

2. Feedback Mechanisms for Cycles

Most cycles offer feedback mechanisms such as a speedometer, odometer to measure distance and a timer.

3. Resistance

There are a variety of systems used to change the resistance while cycling.

Magnetic braking systems are the most common, and reduce wear and tear on the cycle, and produces smooth, precise resistance changes. Direct contact braking systems provide resistance by brake pads that make contact with the front flywheel or a band that is looped around the flywheel. This type of resistance is noisier and can accumulate wear over time. Finally, there is a fan-based resistance system. There is a large fan that is connected to the pedals. As you rotate the pedals, the fan rotates. As you pedal faster, the air resistance increases and the pedaling gets harder.

4. Comfort

It is essential to test different cycles before purchasing to ensure you will be comfortable during your workout. You will have a smoother ride, the heavier the fly wheel. However, if the flywheel is too heavy, it may be difficult to build up enough energy and momentum to get the flywheel in motion. You will need to try the cycle out to ensure you can get it started. When testing out cycles, ensure the pedal action is smooth at various resistance settings. When cycling with resistance, the bike should feel stable, and should not make any loud noises and/or vibrations. The seat should be comfortable.

5. Other Features

Toe clips or straps to help hold your foot on the pedal may be beneficial. See other documents in this section for more information. **When choosing a semi-recumbent cycle, the step-through cycles that do not have a cross bar extending from the seat to the front wheel are easier to get on.**

Many cycles also have the option to change the angle and height of the seat, as well as handlebars to help with comfort. Those who are tall in height should also seek a cycle with a seat post that is long enough to allow a slight bend in the knee when the foot is at the lowest position in the pedal.

Purchasing Adaptive Pedals:

Adaptive pedals are helpful when exercising on a stationary cycle, as it secures the foot to the pedal. For more information see the other documents in this section.

Factors to Consider When Purchasing Treadmills

1. Price

The cost of a treadmill can range from \$400 to \$5,000+. Participants will require a motor-driven treadmill with hand railings and an **emergency stop button**.

2. Testing Before You Buy

It is highly recommended that you test the treadmill by walking at the slowest speed (usually 0.5 mph) before purchasing. This step will ensure that you will be able to walk comfortably throughout your exercise regimen (i.e. warm-up, exercise, and cool-down). It is crucial to note if the motor is producing any labored sounds.

3. Treadmill Motors

Most treadmills have two motors: one to move the belt and one to lift or lower the running bed to an incline. Ideally, the motor to move the belt should be at least 1.5 horsepower. However, a more durable motor is required for people who weigh over 200 lbs.

4. Belt Width & Length

Longer and wider belts are known to provide a more comfortable experience when exercising. **You may need a wider belt depending on how your gait was affected after the stroke.** Typically, widths range from 17 to 22 inches, and lengths from 45 to 60 inches. Feel free to ask the sales representative to point out treadmills with various belt widths and lengths and test which ones are comfortable for you.

5. Cushioning

For those with knee, leg, and joint problems, treadmills provide cushioning to help lessen the impact of walking and running. When testing treadmills,

you should feel the belt absorbing the shock from your movements and the belt should not move from side to side.

6. Emergency Shut-Off

The treadmill you choose should have this feature. Choose a machine where the emergency shut-off function can be easily found and activated. A clip that attaches to your clothing that will disengage from the treadmill console if you are dangerously close to the end of the treadmill is ideal for people with balance deficits.

7. Computer Feedback and Control Console

With technology progressively becoming more advanced, there are some treadmills that offer additional features such as pre-programmed workouts. However, only the basics are necessary: speed, distance, and duration.

Buying Options



Most of these retailers carry multiple options at various price points. Visit the websites by clicking on the hyperlinked equipment names.

Please contact the companies listed here to make sure the information is correct. We do not endorse any specific company. Examples are listed for information only.

Prices are accurate as of: May 2020

Treadmills


Store	Location	Contact Info	Cost (Per Unit)	Delivery	COVID-19 Status
The Treadmill Factory	2111 Dunwin Dr #8, Mississauga, ON L5L 3C1	(905) 828-9033	Golds Gym Trainer Treadmill 430i \$999.00	YES At customer expense 7-10 days to ship	Closed

	<p>505 Cochrane Dr, Markham, ON L3R 8E3</p>	<p>(905) 944-0090</p>			
<p>Wal-Mart Canada</p>	<p>Various Locations (Store Locator)</p>	<p>Varies by location</p>	<p>Schwin Treadmill</p> <p>\$1,092.97</p> 	<p>Order online pick up instore</p>	<p>OPEN (item available online only)</p>


Fitness Depot	<u>2725 Yonge Street, Toronto, ON, M4N 2H8</u>	(416) 480-1525	<u>InRed G6000L Treadmill</u> \$1,188.00 	NO	OPEN Hours 12-5 1 customer allowed in store at a time
	<u>40 Ronson Drive Etobicoke, ON M9W 1B3</u>	(416) 243-8888			
	<u>921 Progress Ave, Scarborough, ON M1G 3V4</u>	(416) 288-1673			
	<u>55 Glen Cameron Rd #2A, Thornhill, ON L3T 1P2</u>	(905) 731-3339			

<p>COSTCO (NordicTrack)</p>	<p>www.costco.ca</p>	<p>1-888-426-7826</p>	<p>NordicTrack 850 Treadmill</p> <p>\$1,399.99</p> 	<p>YES</p>	<p>OPEN</p>
<p>Dotmar Athletics</p>	<p>3035 Wharton Way Mississauga, Ontario, Canada, L4X 2B4</p>	<p>(905) 272-3663</p>	<p>11 options Email: info@dotmarfitness.com for pricing</p>	<p>Yes</p>	<p>In Store (CLOSED) Limited Online (OPEN)</p>

Upright Cycles

Store	Location	Contact Info	Cost (Per Unit)	Delivery	COVID-19 Status
Wal-Mart Canada	Various Locations (Store Locator)	Varies by location	<p><u>Upright Stationary Exercise Cycling Bike w/ LCD Monitor - Red and Black</u></p> <p>\$442.99</p> 	Order online pick up instore	OPEN (Item available online only)

Fitness Depot	<u>2725 Yonge Street, Toronto, ON, M4N 2H8</u>	(416) 480-1525	<u>Everbright Dejet UB41 Upright Cycle</u> \$498.88 	NO	OPEN Hours 12-5 1 customer allowed in store at a time
	<u>40 Ronson Drive Etobicoke, ON M9W 1B3</u>	(416) 243-8888			
	<u>921 Progress Ave, Scarborough, ON M1G 3V4</u>	(416) 288-1673			
	<u>55 Glen Cameron Rd #2A, Thornhill, ON L3T 1P2</u>	(905) 731-3339			


<p>The Treadmill Factory</p>	<p>2111 Dunwin Dr #8, Mississauga, ON L5L 3C1</p>	<p>(905) 828-9033</p>	<p>Frequency Fitness S20 Indoor Cycle</p> <p>\$999.00</p>	<p>YES At customer expense 7-10 days to ship</p>	<p>Closed</p>
	<p>505 Cochrane Dr, Markham, ON L3R 8E3</p>	<p>(905) 944-0090</p>			

<p>Dotmar Athletics</p>	<p>3035 Wharton Way Mississauga, Ontario, Canada, L4X 2B4</p>	<p>(905) 272-3663</p>	<p>Spirit CU800 Upright Bike</p> <p>\$2,299.00</p> 	<p>Yes</p>	<p>In Store (CLOSED)</p> <p>Limited Online (OPEN)</p>
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Semi-Recumbent Cycles

Store	Location	Contact Info	Cost (Per Unit)	Delivery	COVID-19 Status
Wal-Mart Canada	Various Locations (Store Locator)	Varies by location	GoZone Recumbent Bike, Black Combo \$197.98 	Order online pick up instore	OPEN (Item available online only)

Fitness Depot	<u>2725 Yonge Street, Toronto, ON, M4N 2H8</u>	(416) 480-1525	<u>SportOp B930 Recumbent Bike</u> \$688.00 	NO	OPEN Hours 12-5 1 customer allowed in store at a time
	<u>40 Ronson Drive Etobicoke, ON M9W 1B3</u>	(416) 243-8888			
	<u>921 Progress Ave, Scarborough, ON M1G 3V4</u>	(416) 288-1673			
	<u>55 Glen Cameron Rd #2A, Thornhill, ON L3T 1P2</u>	(905) 731-3339			

The Treadmill Factory	2111 Dunwin Dr #8, Mississauga, ON L5L 3C1	(905) 828-9033	SOLE R52 Recumbent Bike 2019 \$949.99	YES At customer expense 7-10 days to ship	Closed
	505 Cochrane Dr, Markham, ON L3R 8E3	(905) 944-0090			
Dotmar Athletics	3035 Wharton Way Mississauga, Ontario, Canada, L4X 2B4	(905) 272-3663	17 options Email: info@dotmarfitness.com for prices	Yes	In Store (CLOSED) Limited Online (OPEN)