

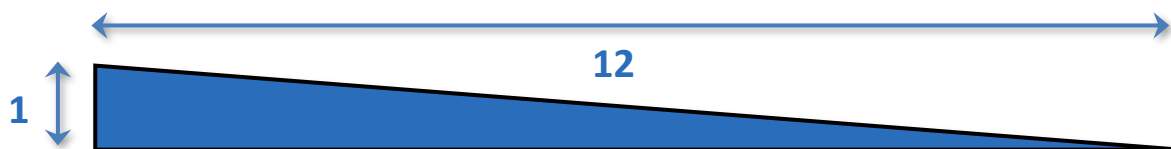
After a spinal cord injury, many people need to make their home more accessible. If you have stairs outside of your house, you might need to use ramps to help you get in. There are both temporary and permanent solutions. Portable ramp options are also available.

Ramps can be bought or rented. Sometimes it is cheaper to buy than to rent long term. Contractors can be hired to build and install ramps. Sometimes they include temporary solutions as part of their quote.

Ramp Slope

The ramp slope is the angle of the ramp. According to the Canadian building code (www.cmhc.ca), you need 12 units length for every 1 unit raise. This is a 1:12 ratio and makes an angle of about 7 degrees. Using a longer length will make the slope easier to climb. Some people find 1:12 difficult and use longer ramps that are 1:16 or 1:20.

Example: If you have stairs that are 0.5 meters high (~2'), the ramp needs to be at least 6 meters long (~24'). To have an easier slope of 1:20, the ramp would need to be 10 meters (~40'). Switchbacks are turns in the ramp that often used for long ramps.



The Canadian building code requires ramp height to length ratios to be at least 1:12.

Ramp Dimensions and Features

Width: The ramp needs to be about 1 meter (3') wide.

Material and weight capacity: The ramp needs to be strong enough to support the weight of yourself, your wheelchair, and an assistant. Ramps can be made out of metal, wood, or plastic.

Contact your Occupational Therapist for more information.

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Handrails and raised edges: There should be a 7.5cm (3") raised edge on both sides of the ramp to help keep your wheels on the ramp. Handrails are recommended for ramps which have slope of more than 1:20.

Transitions: There needs to be a flat transition on and off of the ramp. There should be no space or small step between the ramp and the landing. It is best if the top of the ramp overlaps at least 15cm (6") onto the top landing. If the ramp turns, there should be a flat section in the ramp, so you can turn easily.

Home Ramp Options

Wooden ramps: Wooden ramps can be built by a contractor to fit your home. If you are having a ramp built for your home, it is important that it meets proper safety standards.

Porch lifts: You can rent or buy electric porch lifts for home access. For stairs higher than 75 cm (30"), a porch lift is easier and saves space compared to a ramp.

Modular ramps: For large distances and heights, modular ramps can be used. Modular means that the ramp comes in pieces that fit together. These ramps have railings and can include sloped and flat sections. They can be made with switchbacks, and turns.



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Portable Ramp Options

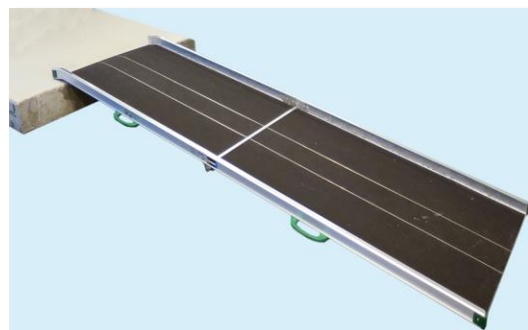
Portable ramps are useful for getting up one or two steps. Many options can fold up and fit in the trunk of a car. Help is often needed to set them up.

Always be cautious when using portable ramps. Make sure they are secured safely and used according to the manufacturer's guidelines. You might need help getting up some portable ramps. It is advised to use a slope of at least 1:12 when using portable ramps.

Pathway ramps: These ramps are set in place to help get over one or two steps. They can be solid or foldable to allow for easy transport and storage.

Channel ramps: These ramps are made of two channels that are set up parallel to each other. Channel ramps can be lighter and easier to transport than pathway ramps but are more difficult to set up. The two troughs need to be perfectly straight for the wheelchair to fit. Always make sure the front wheels (casters) and back wheels can fit before trying to get up. It is also more difficult for a caregiver to assist with these ramps.

Doorway threshold ramps: These ramps help you get over the raised edge of a doorway. They commonly come in heights 2cm to 7.5cm ($\frac{3}{4}$ " to 3"). There are also clip-together plastic ramp pieces that can be assembled to make the right ramp height.



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