

Modifying your Vehicle

Driving again is a common goal following a spinal cord injury. Even if you are unable to walk, you might still be able to drive someday. Even some people with hand weakness can learn to drive with a modified vehicle. This is done by installing hand controls and wheelchair access. A vehicle can also be modified to provide passenger access to a wheelchair.

Driving Controls

Hand controls are a very common way to modify your vehicle. There are options for people with full hand strength and some hand weakness.

Gas and brake controls: Simple gas and brake hand controls can be installed in your vehicle. With these, you control the gas and brake pedals using a single lever. Twisting the lever toward yourself activates the gas pedal (green arrow). Pushing the lever forward applies the brakes (red arrow). To help steer with one hand, the steering wheel is modified with a spinner knob.

Other hand controls: Some people with hand weakness can modify their vehicle for driving. Helpful additions include zero effort steering, and using a keypad for gas and brake.



Vehicle Access

Powered Wheelchairs: If you have a powered wheelchair, it's most common to use a van with a ramp. Ramps or lifts can be installed on the side or the back of a van. Ramps installed on the side give easy access to passenger or driver seats. However, they need a lot of space on the side of parking spaces. Ramps that come out of the back are easier to park in regular parking spots or garages. A ramp in the back is most often used if you are the passenger. A side ramp is best if you are the driver.

Contact your Occupational Therapist for more information.

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Manual Wheelchairs: If you use a manual wheelchair, you might not need a ramp. You might be able to transfer directly into the driver or passenger seat. Some higher vehicles (e.g. trucks) can have modified seats or surfaces which can help with transfers. For more about car transfers, check out the [Spinal Cord Essentials, Car Transfers](#) handout.

Wheelchair Placement

If you're using a powered wheelchair, you will likely sit in it while in the vehicle. Seats will need to be removed from the vehicle to fit your wheelchair. If you share a vehicle, you can modify the driver's seat to twist toward the back of the vehicle. This allows you to transfer to the seat after wheeling in with a side entry ramp.

If you have a manual wheelchair, you will first need to transfer to the car seat. Once you're in your vehicle, you need to store your wheelchair. The chair can be stored in the trunk, passenger seat, or back seat. Some



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vehicles are modified with a crane that picks up and stores your wheelchair for you. Another option is to pull the wheelchair into the vehicle yourself. This requires you to remove the wheels and fold the chair after you have transferred.

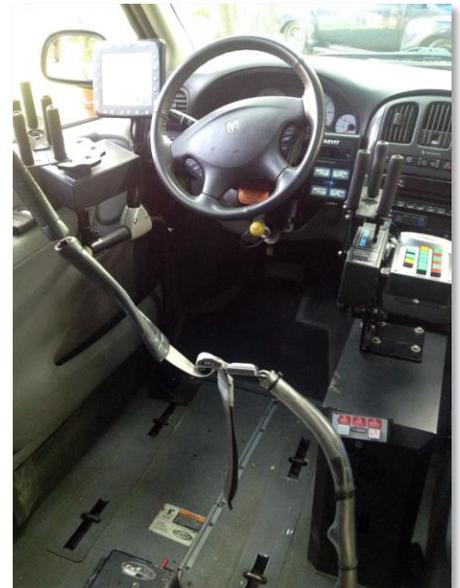
Seats and seatbelts: Most people using a powered wheelchair remove the driver's seat. This allows you to bring your chair into position. A locking system installed on the floor locks your chair into place. You can then use the regular or modified seatbelt.

Vendors and costs

Many companies can help you modify a vehicle to be accessible. This can be very expensive. Hand controls can cost under \$5,000. Larger modifications like ramps can cost over \$15,000. Community organizations like Spinal Cord Injury Ontario can help you find vendors in your area. Some driving schools can also help you find vendors to modify your vehicle. Before you can legally drive a modified vehicle, it needs to be certified.

Funding options

There are some funding options which can help you pay to modify your vehicle. This will depend on your insurance and how you got your injury. If you were injured on the job or in a motor vehicle collision, you may be covered through insurance. Charities like Ontario March of Dimes also have programs which can fund you.



Remember: Driving assessment and modifications can be expensive and are not covered by many insurance companies.

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