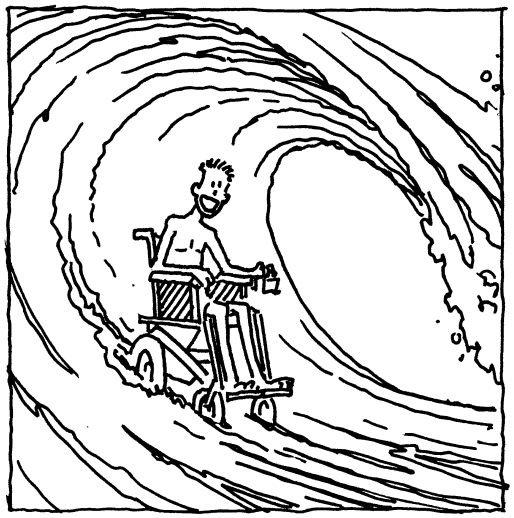
Section 2.2

Learning Your Limits



Riding at different speeds, going up and down hills, over different surfaces and past obstacles affects your stability. Depending on the terrain and your speed, you might have difficulty keeping your balance or your hand on the joystick. It is important to know your limits. To learn what you can do, you have to experience a variety of situations. Each time you try something new, it is best to have another person stand by to help you regain your balance and prevent you from falling. That person is referred to as a spotter throughout this book.

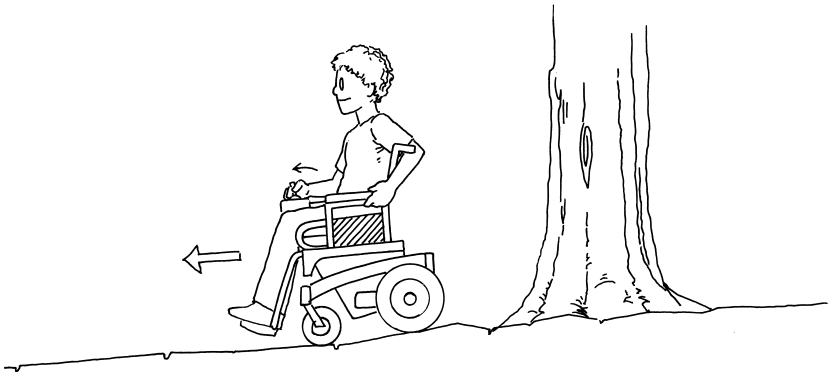
Techniques for Keeping Your Weight Back

Hitting an obstacle, coming to an abrupt stop or driving down a ramp, curb ramp or hill can all cause you to fall forward. Shifting your weight back in your wheelchair might help you keep your balance.

In order to counteract falling forward, it is important to stay as far back in your wheelchair as possible. Although the wheelchair's back support will prevent you from leaning back very far, leaning even your head and shoulders back will help keep you in your wheelchair. If you tend to lose your balance or fall forward, the following suggestions might be useful to you.

Hook your arm behind you

Hooking will help keep your body "locked against the back of your wheelchair." You will need sufficient arm movement and strength to position your arm and hold the push handle in the crook of your elbow. You may find that hooking your non-driving arm around the push handle will provide added stability while driving over obstacles or down ramps.



Hooking your arm can help you keep your balance when you ride downhill or over rough ground in your powered wheelchair.

Since hooking requires you to twist and lean, using this technique over many years can lead to back pain, pressure ulcers on your buttocks, and skeletal deformation. Hooking also occupies an arm that might be better used for other activities. If you find you need to hook often to feel safe while driving, you may want to obtain additional postural supports to minimize usage of this technique. Extended lateral supports or a chest support might be of great benefit.

Use of additional straps

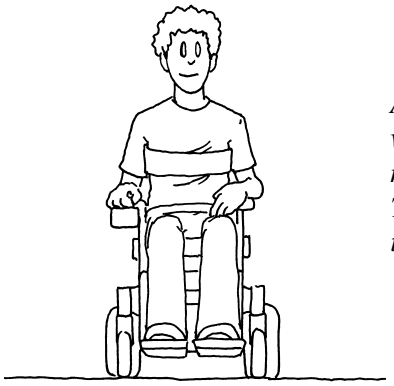
A lap belt will help hold your buttocks back and keep you from sliding forward in your seat. Sliding forward in your seat could allow you to get dumped out on the ground. A lap belt can be positioned at different angles; however, a strap that crosses your thighs at an angle between 60 and 90 degrees will work the best.

A chest strap can help hold your upper body in place, preventing you from falling forward. Different styles are available depending on your needs and preferences. An alternative to the traditional chest strap is an across-the-shoulder automotive style belt or backpack style straps that come down across each shoulder.

Chest straps should be used with great care, because if you slide down (or forward) in your wheelchair, a chest strap can get caught around your throat and choke you. Chest straps of any type should only be used with a properly functioning lap belt.

WARNING!

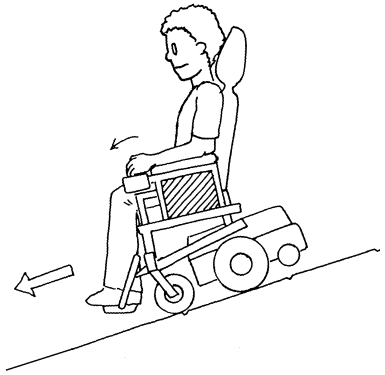
Lap belts mounted at angles less than 60 degrees have the potential of pivoting up, and can allow the hips to slide underneath and forward on the wheelchair seat. For people using a chest support of some type, sliding down in the wheelchair can create a strangulation hazard. People have also slid down in their wheelchairs such that the lap belt created a strangulation hazard.



A chest strap in combination with a lap belt can help you maintain your sitting balance. Try several chest support styles to see what works best for you.

Power recline back support

If your wheelchair is equipped with power recline, you can adjust the back support rearward to prevent you from losing forward stability. The next section discusses this type of seating system in more detail.



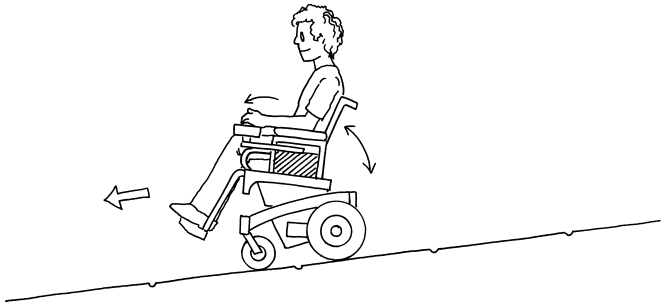
Reclining the back support a little bit might help you keep your balance when going downhill.

CAUTION

Never recline your back support when traveling uphill. This could lead to rearward instability when driving uphill, through a curb ramp or other uphill sloped situation.

Power tilt-in-space seating system

In a power tilt-in-space seating system the entire seating system tilts back, not just the back support. This type of seating system is discussed in more detail in the next section.



A power tilt-in-space feature can also help you keep your balance when going downhill.

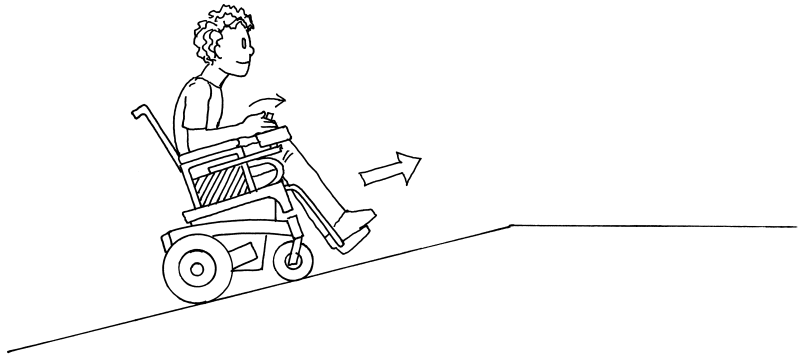
CAUTION

Never use the power tilt feature when traveling uphill. This could lead to rearward instability when driving uphill, through a curb ramp or other uphill sloped situation.

Techniques for Keeping Your Weight Forward

When traveling uphill, you may need to keep your weight forward to prevent your wheelchair from tipping backward.

- Lean forward with your head and shoulders when driving over obstacles and when driving up hills and ramps.
- If you use a chest strap, it may be easier to lean forward against the strap with it slightly loosened.



When traveling up a steep hill, you may need to keep your weight forward to prevent your wheelchair from tipping backward.

When You are Learning Your Limits

- First learn your balance point when sitting in your powered wheelchair. With a spotter's assistance, find out how steep a ramp (forward, rearward and sideways) you can handle before you start to lose your balance.
- Try different postural supports to see which will help you maintain your upper body balance.
- Learn to recognize environments that are beyond your ability to maintain your postural stability. Learn how to recognize ramps that are too steep for you to manage.
- Have a spotter stand by to help you regain your balance and prevent you from falling.