

Selecting a Wheelchair



INTRODUCTION

Most individuals with spinal cord injury (SCI) use a wheelchair for primary mobility. Although some individuals may have similar injuries and basic needs, every individual also has unique needs that should be address when selecting the proper wheelchair.

One of the biggest mistakes you can make is not learning how to select the proper wheelchair. You do not simply order off the Internet or from your local vendor. You need to do it right!

A TEAM APPROACH

Any time you need a wheelchair, selecting it should be a team effort with *you* as team captain. It is your wheelchair, so it is your responsibility to make choices.

A *doctor* is your second team member. Your doctor writes the prescription for your wheelchair. The prescription essentially justifies which specific type of wheelchair and options you need.

A *physical or occupational therapist* is another essential team member. Your therapist evaluates your unique needs, suggests the proper equipment to meet your needs, and provides your doctor with the justification for your equipment needs.

Finally, you and your therapist need to choose a *vendor*. A good wheelchair vendor should be able to show you a selection of wheelchairs and answer questions about each one's pros and cons. Plus, the vendor should be able to suggest wheelchair options and adjustments that best fit your needs.

THE SELECTION PROCESS

You need to be as informed as possible. You need to search the Internet, read wheelchair reviews, and get as much information as you can.

There are many aspects of your life to consider when selecting a wheelchair, and your therapist and vendor are there to advise you. Your goal is to select the wheelchair that best fits your needs based on your...

- ◆ goals. What wheelchair and options can help you best meet your goals?
- ◆ overall health. Consider your posture, body weight, pain type/severity, spasticity severity, bladder and bowel management, and pressure ulcer history.
- ◆ function. The proper equipment can often make your life easier and enhance your daily living activities despite limited communication, mobility, strength, range-of-motion, balance, ability to transfer, endurance, and energy level.
- ◆ environment. Consider a wheelchair that fits more easily into your environment instead of modifying your living space to fit your wheelchair.
- ◆ finances. Chances are you will have to pay at least some portion of the wheelchair costs. Always get the most "bang" for your money.
- ◆ transportation. Transferring and lifting the wheelchair into a car are issues for car owners. Power wheelchair users usually own a van. People who fly often may prefer an easily collapsible manual wheelchair or a maintenance-free battery powered wheelchair.
- ◆ caregiver's role. Most people who need a caregiver use a power wheelchair. Power seat options can often make a caregiver's job easier.

After you make your wheelchair selection, your therapist and vendor will measure your body. This is important because any weight or posture changes can greatly impact how the equipment fits your body.

MANUAL WHEELCHAIR TYPES

Manual wheelchairs are self-propelled. This requires users to have good upper body balance with enough shoulder and arm strength to push hand rims to propel the rear drive wheels.

There are 8 types of manual wheelchair. The lower-end types are generally big, bulky and tend to be hard to push and maneuver. Low-end wheelchairs are temporarily used as "loaners" for patients during rehabilitation. People do not usually own low-end wheelchairs unless they are simply unable to afford a better choice. Higher-End types are typically preferred because they are more customized, highly adjustable, and offer a maximum ease of control as well as durability. The 8 types are:

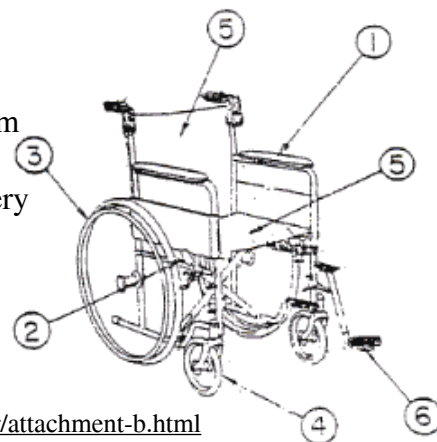
- 1 *Standard* wheelchairs are a basic design that has been around for decades. It is not usually tailored to an individual. Instead, it is designed to fit multiple users with a simple sling seat and very limited adjustability.
- 2 A *standard hemi*-wheelchair is for users who require a lower seat height (17" to 18") because of short stature or to enable the user to place his/her feet on the ground for propulsion.
- 3 A *lightweight* wheelchair is for users who...
...cannot self-propel a standard wheelchair in the home; and
...can and does self-propel a lightweight wheelchair.
- 4 A *high strength lightweight* wheelchair is for users who...
...self-propel the wheelchair while engaging in frequent activities in the home that cannot be performed in a standard or lightweight wheelchair; and/
or
...require a seat width, depth, or height that cannot be accommodated in a standard, lightweight or hemi-wheelchair, and spends at least two hours per day in the wheelchair.
- 5 An *ultralightweight* wheelchair is typically for persons with paraplegia and quadriplegia who need to adjust the rear axle to get a seat "dump" to improve balance or to propel the wheels.
- 6 A *heavy duty* wheelchair is for users who weigh more than 250 pounds or have severe spasticity.
- 7 An *extra heavy duty* wheelchair is for users who weigh more than 300 pounds.

- 8 A *tilt-in-space* wheelchair can tilt the frame of the wheelchair greater than or equal to 45 degrees from horizontal while maintaining the same back to seat angle.

MANUAL WHEELCHAIR OPTIONS

Manual wheelchairs offer various options to help improve the independence of the user. Most of these features can be fixed or adjustable. Some basic features on most manual wheelchairs include:

1. Armrests
2. Wheel Locks
3. Wheel and Hand-rim
4. Casters
5. Seat/Back Upholstery
6. Foot plates



www.csus.edu/sswd/disaster/attachment-b.html

MANUAL WHEELCHAIR PUSH-ASSIST

Push-Assist technology bridges the gap between manual and power wheelchairs. It is intended for users who want to have a manual wheelchair but need assistance in pushing it.

There are currently two types of Push-Assist devices. One is a battery powered device attaches to the rear wheels. When the user pushes the wheelchair, a sensor monitors the force of the push and helps propel the wheel movement, which reduces the force needed by the user to propel the wheelchair. The second assistive device works very similar to a 2 speed bicycle. The standard rear wheels on the manual wheelchair are replaced by 2-gearred, battery-free rear wheels. These wheels allow users to shift between gears to make it easier or harder to push the wheelchair depending on the terrain.

POWER WHEELCHAIR

Power (electric) wheelchairs are generally used by

people who cannot push a manual wheelchair due to limited upper body strength. Battery powered motors propel front-, center-, or rear-wheel drive options. Each drive option has particular handling characteristics. For example, people who primarily use their power wheelchair indoors may prefer the tight turning radius of a center-wheel drive. A rear-wheel drive might be preferred for mostly outdoors use. A front-wheel drive might be preferred for equal amounts of indoor and outdoor use.

Power wheelchair components include a seat frame of some sort, armrests, footrests, seat and seat back. There are several control types for driving a power wheelchair. A joystick control is most common. A chin control, head control or mouthstick (the user sips/puffs into a tube located near the mouth) control can be used by people who are unable use a joystick due to limited hand or arm movement. Other customized control devices are available if needed.

The controller is also used to operate power seating systems. There are 4 options available that are intended to improve independence in self-care and daily activities:

- 1 A tilt seat frame tilts the user backward in the seated position at an angle to change pressure points to help prevent pressure ulcers. Tilting the seat can also improve sitting balance.
- 2 A reclining backrest opens the hip angle for users to lay back for pressure relief, resting, or self-catherization.
- 3 An elevating seat lifts a user while remaining in the seated position. Elevating can improve a user's reach and enhance the user's ability to socially interact on a more eye-to-eye level.
- 4 A standing frame lifts the user from a seated to standing position, offering the pressure relief of tilting and reclining along with the same functionality as the seat elevator. Standing may also improve a user's circulation, bladder function, digestion and respiration, but further research is needed to verify such benefits.

Other potential options include:

- ◆ swing away joystick mounts

- ◆ environmental control technology (inferred/bluetooth operation through controller)
- ◆ flat free tires
- ◆ power leg rest elevation
- ◆ frame color
- ◆ high speed motors
- ◆ suspension

SPECIALIZED WHEELCHAIRS _____

Today, wheelchair users are demanding wheelchairs that are tailor made for specific sports and recreational activities. You can purchase 4-wheel drive wheelchairs if you are an outdoorsman. There are wheelchairs designed for individualized sports such as basketball, tennis or racing. If you have a special interest, chances are you can find a wheelchair to maximize you performance.

WHEELCHAIR COSTS _____

Your "first" wheelchair is likely going to be paid for by private health insurance, Medicare, Medicaid, or an accident settlement. Some insurance will only pay for one chair in your lifetime. The insurance may pay for the full price of the chair or only a percentage of the cost. Medicare and Medicaid will only pay for a new wheelchair that will make you independent in your home. Some private insurers, Medicare, and Medicaid may purchase a new wheelchair every 5 years, but only if there is evidence that either your...

...current wheelchair is damaged beyond repair; or
...physical condition has changed such that you need a different wheelchair.

Even if you provide justification for all of your wheelchair needs, your insurance largely dictates the type of wheelchair and options you can get. Each insurance provider has guidelines for the type of wheelchair it will provide based on diagnosis, physical condition and functional abilities. For example, you may be able to justify a need for an elevating seat, but the payer may still decline to pay for it. This means you may need to pay out-of-pocket or get an external funding source such as vocational rehabilitation to pay any additional costs.

Insurance payment is made for only one wheelchair at a time. In general, costs for manual wheelchairs range from the low-end of \$500 to the high-end of \$4,000. Power wheelchairs normally range from \$5000 to \$30,000. Backup wheelchairs are denied as not medically necessary, but one month's rental of a wheelchair is covered if a patient-owned wheelchair is being repaired.

YOUR NEW WHEELCHAIR _____

Once your vendor has your new wheelchair, do not simply have it delivered to your home. Instead, you need to meet your vendor and therapist for your wheelchair fitting. This allows your therapist and vendor to "fine-tune" all of the adjustable aspects of your wheelchair to fit your needs. The fitting lets you make sure that everything is the way you want with your new wheelchair before you take it home.

It is essential that you get a seating evaluation as part of your fitting. Not only are there differences between your old and new wheelchairs, but your body is always changing in weight, shape and posture. Such changes can put you at higher risk for a pressure sore. If you get a seating evaluation each time you get a new wheelchair, you may be able to prevent problems.

Read all of the warranty information. Many wheelchairs have lifetime warranties on the frame. Do not try to fix something yourself until you check to see if it is covered by the manufacturer's warranty.

If you have problems with daily activities or discomfort, see your therapist for a re-evaluation. Minor seating adjustments may be needed.

Take care of your chair! Regular maintenance and care are important. Tightening loose screws can prevent major breakdowns later.

WHEELCHAIR LEMON LAWS _____

Many States have a law to protect consumers who buy a new wheelchair that turns out to be "lemon." If you purchase a wheelchair, you may be able to get a refund or have the wheelchair replaced if the...

- ... wheelchair does not conform to the terms of the written warranty; and
- ... the manufacturer or authorized dealer is unable to repair the wheelchair after a reasonable number of attempts during the first year.

CONCLUSION _____

Over the years, wheelchair technologies have advanced greatly. Today's wheelchairs have many options, parts and accessories to make the equipment more functional for you.

RESOURCES _____

United Spinal Association Tech Guide: A Web Guide To Wheelchair & Assistive Technology Choices

www.usatechguide.org/

wheelchair.ca: Medical Equipment Information & Resources

<http://wheelchair.ca/>

Fact Sheet on Manual Wheelchairs

www.abledata.com/abledata_docs/manwhch.htm

WheelchairNet

www.wheelchairnet.org

American Physical Therapy Association (APTA)

www.apta.org

American Occupational Therapy Association (AOTA)

www.aota.org/

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