

GUIDE TO WHEELED MOBILITY: MANUAL WHEELCHAIRS, POWER CHAIRS, AND MOBILITY SCOOTERS

If you have a medical or health condition that makes it not possible to walk, finding a wheeled mobility solution is an option that can help maintain your independence and health. Often, first time buyers may not be aware of the wide selection of wheelchairs and other wheeled mobility devices available, particularly if you've only seen the type used in a hospital. There are many factors to consider in meeting your individual needs, and being an educated consumer will help you select the best wheeled mobility device that best fits your need, and that you'll probably use for years. This paper provides a step-by-step guide to selecting manual wheelchairs, power wheelchairs (sometimes called power operated wheelchairs), and mobility scooters (sometimes called power operated vehicles). You can use the checklist at the end of this guide to track your progress.

Step 1: What features are available?

This introduction to the features of wheeled mobility devices is intended as a

Wheelchairs & Scooters in Medicare's Competitive Bidding Program

If Medicare is your primary health insurance, then you might be covered under the Medicare *competitive bidding program*, a special purchasing program for wheelchairs and other medical equipment, depending on where you live. If so:

- ✓ Most manual and power wheelchairs, accessories, and related supplies and maintenance must be purchased from a specially designated Medicare supplier or store.
- ✓ This supplier or store may be different from the one where you bought your previous wheelchair, or where you buy other Medicare-covered medical equipment, and supplies that are not part of the competitive bidding program.
- ✓ Certain custom wheelchairs and accessories are exempt from Medicare competitive bidding.
- ✓ To see if your area and your needed wheelchair and accessories are part of the competitive bidding program, check Medicare's supplier directory (www.medicare.gov/SupplierDirectory).

starting point to guide you in your research. Then you can determine your needs and what features are likely to meet your needs. One place to start is with your supplier's website and the websites of the manufacturers whose wheeled mobility devices they sell.



Manual wheelchairs

Manual wheelchairs come in a variety of sizes and colors, with a range of adjustable and special-order features. Some are lightweight and come with folding frames so you can lift it into a vehicle or store it when you're not using it.

Manual wheelchairs generally fall into two broad categories: (1) transport - pushed by someone other than the user; and (2) self-propelled - driven by the user.

- If you need someone to push you all the time, you can select from a variety of wheelchairs that often have small rear wheels. Some may be designed with added accommodation, like changing the user's position by tilting the backrest. Be sure that the person who will be pushing you participates in the selection.
- Self-propelling manual wheelchairs typically have large rear wheels. The features of these wheels, including the *camber* or tilt of the wheels, and the location along the frame, can be fitted to your needs.
- You *can* use a manual wheelchair if you only

Doing Wheelies for Added Access

If you are able to balance your manual wheelchair on just its back two wheels—*pop a wheelie*—then you'll have better access to your environment. By *popping a wheelie* and riding on two wheels, you can:

- ✓ Cross a higher doorway threshold.
- ✓ Get over a 2 inch curb.
- ✓ Navigate soft terrain like grass and gravel without the front casters (wheels) getting stuck.

Ask your physical or occupational therapist:

- ✓ What adjustment is needed to the position of the rear wheels along the frame for my best combination of tipping and balance?
- ✓ How can I safely pop a wheelie?

have the use of one arm or leg. Wheelchairs can be designed and adjusted to be propelled by only one arm or leg, as well as both arms/legs.

Power wheelchairs

When a manual wheelchair does not meet your needs, your health insurance plan might be willing to pay for a power wheelchair. Your supplier can often advise you on what qualifies you for coverage if you can't get a clear idea from your health plan contacts.

Power wheelchairs generally fall into two broad styles: (1) a *traditional* style that essentially adds a motor, battery, and controller to a manual-type wheelchair frame; and (2) a *platform* style in which a seating system with controller is installed on top of a powered base, often with two larger drive wheels and four smaller caster-type wheels. Platform-style power wheelchairs also differ from traditional ones in that they come in many configurations, such as tilting models with reclining seats to change position and pressure points, models with adjustable seat-height, and models that lift and support the user in a standing position.



The information below provides more information on both types of power wheelchairs.

- The location of the drive wheel, the larger wheel that moves the wheelchair, can be *rear* wheel, *mid* wheel, and *front* wheel. How and where you use your wheels, as well as how comfortable you feel with the drive will determine which location is best for you. Mid-wheels generally have a smaller turning radius, making them more maneuverable. They are also more stable on slopes. Front wheels are better for handling obstacles such as curbs, grass, gravel,

Medicare Prior Authorization for Power Wheelchairs & Scooters:

Medicare and some private health insurers often require that you request prior authorization or permission before you can purchase or rent a power operated wheelchair or a scooter, which Medicare calls a *power operated vehicle*.

- ✓ Your physician or health care practitioner must talk with you face-to-face, then provide a detailed description of why your medical condition qualifies you for a *power mobility device*.
- ✓ You must meet Medicare's coverage requirements, which include showing that you need a *power mobility device* to get around inside your home.

uneven terrain and snow because they pull the chair up and over the obstacle. Rear wheels are better at higher speeds in driving straight and being stable, since most of the weight is over the wheels.

- The power source is typically 24-volt (two 12-volt) batteries, with varying capacity or range between charges, from about seven miles to 25 miles. Most batteries require about eight hours to fully recharge each day. Batteries typically last from six months to over a year. Choosing the right battery will depend on how far and where you travel each day in your wheelchair. Battery technology continues to improve rapidly, and some innovations include new wheelchairs that can accommodate 36-volt batteries.
- A manual joystick generally controls the chair's speed and direction. However, if you have limited use of your arm or fingers, most manufacturers offer customized control options, including push-button controls, trackballs, sip-and-puff (pneumatic) systems, head and chin switches, and voice-activated controls. Be sure that the controller you select is compatible with the chair.



Scooters

Mobility scooters, sometimes called power operated vehicles, may be an alternative if you have some walking ability, and won't be using them full time. They assist users to move across larger distances, indoors and outdoors, like grocery stores, shopping centers, malls, and parks. Medicare and other health insurance plans have strict rules on covering scooters.

Because they are not a primary source of mobility, they have design elements, such as swiveling seats, to make it easier to get on and off during the day. Also, unlike a power wheelchair, the scooter is controlled by a tiller with handlebars in front of the user rather than a controller on the arm so you can't pull them up to a table or desk.

- Scooters have three or four wheels, typically with two larger wheels in the rear and one or two in the front. Three-wheeled scooters tend to be lighter in weight and have a smaller turning radius, making them easier to maneuver, particularly indoors. Four-wheeled scooters are generally heavier and somewhat more stable outdoors over rougher terrain. They can have rear-wheel or front-wheel drive.
- Speed and range varies from walking speed of about three miles per hour to 10 mph, and 10 to 30 miles of range on a battery charge. Speed and power up hills also depends on the *torque* of the motor, with lower torque providing more speed and higher torque more power.
- When and where you will use your scooter can help you choose between a smaller *travel* scooter and a standard/midsize or heavy-duty/larger scooter. Travel scooters

typically are lightweight, designed to be disassembled quickly into 4 or 5 smaller, lighter components that can be stored in a trunk of a car and reassembled at your destination. Travel scooters also have user weight limits and offer less speed and distance than standard or heavy-duty ones. Standard or heavy-duty scooters have more features, and generally require a scooter lift attachment or specialized accessible van with ramp to transport. Larger scooters are often too large to maneuver inside an average-sized house or apartment.

Seating

How many hours a day do you expect to use your wheels? Does your medical condition affect your ability to sit up, balance, or change position? Your comfort, posture, pressure points, and/or stability while using your wheels will depend on how you are seated in the wheelchair or scooter.

- The seat and back, or *seating systems* are often sold separately, which allows you to select the features you need. However, check to be sure that the seating system is compatible with your wheeled mobility vehicle.
- Cushions may be part of the seating system or separate. Cushions may assist in support and correct positioning, as well as prevent pressure sores by reducing or shifting pressure off the buttocks—a key danger point if you have trouble changing positions. Cushion types include air, gel, foam, and honeycomb.
- Power wheelchairs, because of their modular construction, often have customized chair-style seating systems. Scooters usually have a chair-style seat with a back and armrests, although some lightweight scooters may have seats without a back or armrests.
- It's important to get all the correct measurements, particularly the width and depth of the seat, and the support in back of the chair.

Seating is one area where you should consult a health care professional, particularly one who specializes in wheelchair seating, to determine the best solution for your health, safety, and comfort.

Step 2: What will my health insurance cover? Do they have a list of suppliers?

This is a key step since wheeled mobility devices are expensive. You will likely need health insurance to help cover the costs. Medicare, Medicaid, private/employer health insurance, Veterans benefits, and other sources each have specific rules and limits on what they will pay for. You will also need a prescription from your physician or health care provider. Often, you may be required to shop from a list of approved or in-network suppliers or stores. This information should be available on the health insurer's website and/or by calling their customer service line.

Step 3: Why, how, when and where will I use the wheels?

Make a list of why, how, when, and where you will use your wheeled mobility device. This will help you understand and research the different features you may need, and give your physician or health care practitioner important facts in writing your prescription.

- Why do you need wheels? What is the medical or health condition that impairs your mobility?
- How much walking can you do? Will your wheels be your only source of mobility? How many hours a day will you use it?
- How will you control the wheeled mobility device?
- Do you have sufficient arm strength in one or both arms to operate the device?
- Will a family member or caregiver also help? If so, in what way?
- Will you use the device inside your home? Do you know the measurements of your doorways, hallways, kitchen, bathroom, turning areas? Are there stairs and steps where you'll need a ramp or lift to allow wheeled mobility?
- When you go out, will you use public transportation or your own car?
- Where do you go each day, each week, each month? Will you be going to work or school? How accessible are the places you'll be going, including the walkways, entrances, interior spaces? How rough is the usual terrain?
- What are you using now for mobility? What works, what needs improvement?
- Do you know someone who uses a wheeled mobility device, whom you can talk to?

Understanding "Durable Medical Equipment"

Wheelchairs and scooters are considered "durable medical equipment". This is important to know because you need to factor in each of these terms in your research and decision-making:

- ✓ *Durable* means used repeatedly for many months or more. Wheels are a long-term commitment. Some health insurance plans may only cover replacements every 5 years.
- ✓ *Medical* means that it may be covered under your health insurance plan, and so will likely need a prescription from your physician or health care professional, based on your health condition.
- ✓ *Equipment* means that it is likely to need fitting, adjustments, maintenance, and repair. You need to consider how to manage this.

Step 4: How can I compare features?

Once you have a list of features that match your needs, you can compare wheeled mobility devices through online websites. Then, go in person for a test drive. Choosing the right wheels is a big decision—one you'll be living with for a number of years.

- Find a clinic that has experience evaluating individuals for wheeled mobility, offers a variety of models that you can test, and understands your specific health condition. Ask other wheeled mobility users where they were assessed. Contact local volunteer agencies that represent your health condition for referrals.
- Bring your health insurance information and checklist of needs and features (answers to Steps 1, 2 and 3), to review carefully with the clinic staff. Ask for an occupational or physical therapist who specializes in wheeled mobility and has evaluated others with your similar condition and needs. Ask if they are a certified assistive technology professional (ATP) (resna.newtarget.net/member-directory/individual), and if a certified rehabilitation technology supplier (CRTS) (www.nrrts.org) will participate in the evaluation.
- They may have additional recommendations. Ask for a copy of their written evaluation. Ask for details that can assist your physician in writing your prescription with the appropriate medical information that supports the features you need, particularly special adjustments, customizations, accessories, or other options that go beyond the standard model.
- Take time to test each of the different wheeled mobility devices that they recommend. If you need some specialized features, it may not be possible to test these, but try to understand how those features may improve your ride.

Comparing Wheeled Mobility Online

Here are some consumer websites for comparing features:

- ✓ Christopher & Dana Reeve Foundation has videos comparing manual (bit.ly/1xmo4Ak) and power wheelchairs (bit.ly/1vY39lw).
- ✓ United Spinal Association has manual, power, seating, and other wheelchair-related reviews (www.usatechguide.org) by users.
- ✓ Top Ten Reviews provides comparisons under their *Appliances, Health & Wellness* section for traditional-style electric (bit.ly/1vY6eCb) wheelchairs, power wheelchairs (bit.ly/1qugMp2), standard/heavy-duty mobility scooters (bit.ly/WmMOY1), and smaller power scooters (bit.ly/1we6EkW).

Step 5: What are the benefits of a manual wheelchair vs. a power wheelchair vs. scooter?

The following table is a comparison of the advantages and disadvantages of different types of wheeled mobility devices by Jean Minkel, MA, PT, a wheelchair expert, from her article on wheelchair selection (bit.ly/1BndhVb):

Type of Wheels	Advantages	Disadvantages
Manual Wheelchairs	<ol style="list-style-type: none">1. Lighter in weight2. Greater reliability3. Easier to transport4. Less expensive5. Provides a level of exercise6. Easier to overcome accessibility problems	Self-Propulsion: <ol style="list-style-type: none">1. Possible secondary complications (sore shoulders, wrists and elbows) after long-term use.2. Requires physical effort to be mobile
Power Wheelchairs	<ol style="list-style-type: none">1. Greatest mobility range with least exertion.2. Easier to modify over time than scooter, if needed.3. Available with power seating options – tilt and/or recline.	<ol style="list-style-type: none">1. More Expensive.2. More difficult to transport.3. Needs charging4. Less reliable than manual wheelchairs.
Scooters	<ol style="list-style-type: none">1. Aesthetics does not look like a wheelchair.2. Increases mobility range without increased exertion3. Swivel seat may allow for easier transfers in and out of the seat.	<ol style="list-style-type: none">1. More complicated to transport in a car than a manual chair.2. Needs charging3. Less flexible to modify to your changing physical conditions than a power chair.

If you have been using a manual wheelchair, determining the right time to switch to a power wheelchair can be a difficult, personal decision. Here are some of the reasons to switch that experts at Craig Hospital, in Colorado (http://www.pridemobility.com/resourcecenter/articles_switching_to_a_power_chair.asp), have recognized among their patients who had been using manual wheelchairs: lower levels of strength or function, increased pain (particularly in your shoulders, arms, and wrists from pushing your manual wheelchair), decreased mobility and less activity because it is too painful or tiring to push around, new skin sores, new posture problems, and/or overall fatigue.

Step 6: What do I need from my doctor? When do I approach my doctor for a prescription and letter of medical necessity?

You will need two prescriptions from your doctor for your manual wheelchair, power wheelchair, or scooter.

1. **Before** you go for a wheeled mobility evaluation and assessment, your doctor needs to write a prescription for the evaluation itself. The prescription should include: "OT or PT wheeled mobility [wheelchair] evaluation" and list your medical condition(s) that limits your mobility. This prescription allows the occupational therapist (OT) or physical therapist (PT) to conduct and bill for your wheeled mobility evaluation.
2. When you have completed your research and evaluation, and have all your paperwork together, visit your doctor for the prescription for your wheeled mobility device. This will include a letter of *medical necessity*, a detailed medical description of the features you need in a wheeled mobility device, justified by specific references to your medical condition, health and safety, and functional needs. This letter may be drafted by the OT or PT who conducts your evaluation, then reviewed and signed by your doctor. This letter is crucial to your success in getting your health insurance to cover the features you need. Carefully review it, ask questions, and keep a copy. The University of Michigan (<https://homecare.med.umich.edu/Wheelchair-Seating-Service/For-Health-Professionals>) and others (<http://bit.ly/ZeGZOh>) have templates and suggestions for letters of medical necessity.

If Your Claim is Denied

Wheeled mobility devices, particularly power wheelchairs and scooters are under intense scrutiny by Medicare, Medicaid and private health insurance plans due to fraud and abuse by some unscrupulous health care practitioners and suppliers.

As a result, your insurance claim may be denied, meaning that your plan will not pay for the wheeled device, or that they may pay only for the least costly alternative, meaning that they will not cover all the features you have requested.

If this occurs, request detailed information justifying the denial. Sometimes, the medical report may have been incomplete, or other documentation missing. You should appeal it through the plan's appeals process.

Your health plan may also require your doctor to complete a *prior authorization* form that includes similar details to the letter of medical necessity. This may be required if you need a manual wheelchair with additional or custom features beyond the basic, lowest cost model, as well as for a power wheelchair or mobility scooter.

Step 7: How do I buy or rent my wheels? How do I arrange adjustments, maintenance and repairs?

If you have a choice of suppliers or stores, ask your evaluation team and other wheeled mobility users for the one they recommend. Look for a certified rehabilitation technology supplier (CRTS) (www.nrrts.org). Ask for references from satisfied customers.

- Understand what services, adjustments, maintenance, and repairs will be handled by the supplier/store, what the manufacturer will do, and what your responsibility will be. Ask for this information in writing.
- Some of the adjustments and fittings may be made by the OT or PT who provided your wheeled mobility evaluation, and some may be made by the supplier/store.
- Ask to have the warranties explained and keep them in a safe place.
- Since power operated wheelchairs and scooters have batteries, motors, and other electronics, be sure you understand how to recharge the batteries, when to replace them, and other special maintenance needs.
- Understand what routine maintenance is provided and where, and how to handle routine or emergency repairs.
- Some insurance plans require a doctor's prescription for certain maintenance and repair/upgrade services.

Depending on your insurance plan and specific circumstances, you may have the choice to rent or buy. Take the time to review the pros and cons, and ask for advice from your evaluation team and others.

Step 8: What if I need other funding sources to get my wheeled mobility solution?

There are national and state government programs, as well as non-profit organizations that provide funding for assistive technology, including wheeled mobility devices. You can find an overview in the AbleData publication: *What are Your Options to Pay for Assistive Devices?* (<http://www.abledata.com/publications/what-are-your-options-pay-assistive-devices>).

Organizations like the Christopher & Dana Reeve Foundation (bit.ly/1uGejHP) and the United Spinal Association (bit.ly/1rv4clO) provide lists of wheelchair donation resources in the U.S. and internationally.

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A Guide to Wheelchair Selection (bit.ly/1BndhVb): By Jean Minkel, MA, PT, United Spinal Association TechGuide publication.

Find Assistive Technology Professionals/Wheelchair & Seating Specialists (resna.newtarget.net/member-directory/individual): Rehabilitation Engineering & Assistive Technology Society of North America (RESNA)

Find Certified Rehabilitation Technology Suppliers from the National Registry of Rehabilitation Technology Suppliers (NRRTS) (www.nrrts.org).

Wheelchair features, specifications, and general information: New Mobility Magazine (www.newmobility.com), www.wheelchairguide.net/, www.mobilitybasics.ca/seating/, www.wheelchairnet.org/index.html, <http://ptjournal.apta.org/content/80/9/904.full>

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Top Ten Reviews wheelchair comparisons under *Appliances, Health & Wellness* section for traditional-style electric wheelchairs (electric-wheelchairs-review.toptenreviews.com), power wheelchairs (power-chairs-review.toptenreviews.com), standard/heavy-duty mobility scooters (mobility-scooters-review.toptenreviews.com), and smaller power scooters (power-scooter-review.toptenreviews.com).

Switching to a Power Wheelchair Craig Hospital, Englewood, CO. (http://www.pridemobility.com/resourcecenter/articles_switching_to_a_power_chair.asp).

Medicare information on Wheelchairs and Competitive Bidding (<http://medicare.gov/coverage/manual-wheelchairs-and-power-mobility-devices.html>).

Medicare information on coverage, prescription, and medical necessity documentation (go.cms.gov/Qj3ZGU) requirement for power mobility devices.

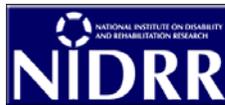
Sample letters of medical necessity for manual and power wheelchairs from the University of

Michigan (<https://homecare.med.umich.edu/Wheelchair-Seating-Service/For-Health-Professionals>) and from the United Spinal Association (bit.ly/ZeGZOh).

Advocacy & legal help if your claim is denied: National Disabilities Rights Network (www.ndrn.org/index.php).

For potential financial resources, consult the AbleData publication: *What are Your Options to Pay for Assistive Devices?* (<http://www.abledata.com/publications/what-are-your-options-pay-assistive-devices>).

Or the Christopher & Dana Reeve Foundation (bit.ly/1uGejHP) and the United Spinal Association (bit.ly/1rv4clO) for lists of wheelchair donation resources in the U.S. and internationally.



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