Wheelchair Clinic
at Dodd Rehabilitation Hospital
# Wheelchair Clinic

## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome</td>
<td>3</td>
</tr>
<tr>
<td>Choosing a Vendor</td>
<td>4</td>
</tr>
<tr>
<td>Home Evaluation</td>
<td>6</td>
</tr>
<tr>
<td>Manual Wheelchairs</td>
<td>9</td>
</tr>
<tr>
<td>Manual Wheelchair Components</td>
<td>11</td>
</tr>
<tr>
<td>Caring for Your Manual Wheelchair</td>
<td>13</td>
</tr>
<tr>
<td>Power Wheelchairs</td>
<td>18</td>
</tr>
<tr>
<td>Caring for Your Power Wheelchair</td>
<td>19</td>
</tr>
<tr>
<td>Taking a Wheelchair Up and Down Stairs and Curbs</td>
<td>22</td>
</tr>
<tr>
<td>How to Adapt an Entrance for a Wheelchair</td>
<td>24</td>
</tr>
</tbody>
</table>

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Talk to your doctor or health care team if you have any questions about your care.

For more health information, contact the Library for Health Information at **614-293-3707** or e-mail **health-info@osu.edu**.
Welcome

We will assess your mobility needs before you leave Dodd Rehabilitation Hospital. If you need a wheelchair, you may be referred to our Wheelchair Clinic for evaluation and fitting. **You will visit the clinic 3 to 5 times during your stay to get the best fit and type of wheelchair for you and your lifestyle.**

During your visits to the clinic, you will:

1. Decide whether a custom or rental wheelchair is the best option for you.
2. Choose a wheelchair vendor. We will help you get the facts you need to make this decision, including helping you check on your insurance coverage.
3. Be measured and have a mat evaluation by a therapist.
4. Have an initial meeting with your vendor.
5. Trial wheelchairs.
6. Have a pressure mapping assessment to check which wheelchair cushion provides the most pressure relief, if needed.
7. Have a final meeting with your vendor.

**If you order a custom wheelchair**

The vendor will give you a loaner wheelchair until your wheelchair is approved and delivered in 2 to 3 months.

The **Wheelchair Seating and Mobility Clinic** at Martha Morehouse Outpatient Care can track your order and take care of any needed follow up appointments. Call **614-685-5600** for more information.

Contact the vendor if you have any issues with the wheelchair.

**If you order a rental wheelchair**

Return your rental wheelchair within 12 months so that your insurance does not purchase the wheelchair for you.

If you are still in need of a wheelchair after 6 months, call to schedule an appointment with the **Wheelchair Seating and Mobility Clinic** at Martha Morehouse Outpatient Care at **614-685-5600**. They can help you order a custom wheelchair.

Visit, [https://wexnermedical.osu.edu/physical-therapy-rehabilitation/wheelchair-seating-mobility-clinics](https://wexnermedical.osu.edu/physical-therapy-rehabilitation/wheelchair-seating-mobility-clinics), for more information about the **Wheelchair Seating and Mobility Clinic** at Martha Morehouse Outpatient Care.
Choosing a Vendor

As a patient, you have the final say when it comes to choosing who you would like to work with to obtain a wheelchair. Listed below are things to consider as you make this decision. If you have any questions or concerns, please ask us for help.

Check with your health insurance provider

Ask for their list of approved vendors for wheelchairs. If you choose not to use a vendor from this list, your out of pocket costs will be higher.

Visit these websites to find wheelchair vendors in your area


Ask vendors these questions

- Is the vendor Certified Assistive Technology Professional (ATP) or a Certified Rehabilitative Technology Supplier (CRTS)? These certifications mean they are equipment specialists and have had education and training to ensure equipment decisions are made with your long term satisfaction in mind.
- Does the vendor have a service location close to your home?
- What is their service and repair policy? Does the vendor take care of adjustments or changes as you use the wheelchair? Does the vendor provide a temporary replacement if your wheelchair needs serviced?
- Does the vendor provide in-home services?
- What amount of the expense of the wheelchair and its component options are covered by your insurance plan? What will be your out of pocket expenses? When will you be eligible for another wheelchair?

If the vendors you are considering all meet the same criteria, ask what makes them special:

- Does the vendor offer special programs?
- What processes are in place to ensure that wheelchairs and components are delivered in the least amount of time?
- How does the vendor stay informed about the most up to date information in wheelchair and component technology?
- What is the vendor’s history of performance? Ask for a list of recommendations.
- How long will it take to get the wheelchair?

- Does the vendor have a service location close to your home?
Now what?

Tell Dodd Rehabilitation Hospital staff what wheelchair vendor you would like to use. If you are unsure, we are happy to talk with you about your options.

We often work with these vendors:

- **NuMotion**, 800-589-1020; 614-515-2156, www.numotion.com
- **National Seating & Mobility**, 800-282-1395; 614-294-5585, www.nsm-seating.com

My vendor is: ____________________________________________

Phone number: ___________________________________________
# Home Evaluation

Please fill out this form to help us find the best equipment for you that takes into account your needs and lifestyle. If you need help filling out this form, please ask a family or staff member for assistance. A therapist or other member of your health care team will discuss this information with you and your family.

Diagnosis: ______________________________________________________

Form completed by: [ ] Patient [ ] __________________ Date: ___________

<table>
<thead>
<tr>
<th>General</th>
<th>Entrance to Home</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Patient lives:</strong>&lt;br&gt; - Alone&lt;br&gt; - With: _______________________&lt;br&gt; <strong>2. Patient lives in a:</strong>&lt;br&gt; - House&lt;br&gt; - Condo&lt;br&gt; - Townhouse&lt;br&gt; - Apartment&lt;br&gt; - Other: _______________________&lt;br&gt; <strong>3. Patient:</strong> [ ] Owns [ ] Rents</td>
<td><strong>4. Patient uses the bedroom on the _____ floor.</strong>&lt;br&gt; <strong>5. Patient uses the bathroom on the _____ floor.</strong>&lt;br&gt; <strong>6. Is there a bedroom on the 1st floor?</strong>&lt;br&gt; - No&lt;br&gt; - Yes&lt;br&gt; <strong>7. Is there a bathroom on the 1st floor?</strong>&lt;br&gt; - No&lt;br&gt; - Yes, a full bath&lt;br&gt; - Yes, a half bath</td>
</tr>
<tr>
<td><strong>1. Entrance: which is more accessible?</strong>&lt;br&gt; - Front entrance&lt;br&gt; - Back entrance</td>
<td><strong>4. Ramp:</strong>&lt;br&gt; - Needed&lt;br&gt; - Ordered&lt;br&gt; - Under construction&lt;br&gt; - In place&lt;br&gt; <strong>5. Is a handrail present?</strong>&lt;br&gt; - Yes, left side/right side/both sides&lt;br&gt; - No&lt;br&gt; <strong>6. Door:</strong>&lt;br&gt; Width: _____&lt;br&gt; Threshold height: _____&lt;br&gt; - Swings in&lt;br&gt; - Swings out&lt;br&gt; Patient able to access? [ ] Yes [ ] No&lt;br&gt; Adaptive handles? [ ] Yes [ ] No</td>
</tr>
<tr>
<td><strong>Living Room</strong></td>
<td><strong>Kitchen and Dining Area</strong></td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>1. Cords, lamps, extension cords, phone cords out of traffic?  □ Yes □ No</td>
<td>4. Adequate lighting? □ Yes □ No</td>
</tr>
<tr>
<td>2. Rugs and runners slip resistant? □ Yes □ No</td>
<td>5. Able to rearrange furniture for power wheelchair? □ Yes □ No</td>
</tr>
<tr>
<td>3. Floor type: □ Carpet □ Tile □ Other: ______________________</td>
<td>Comments: ______________________</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Wheelchair and walker accessible? □ Yes □ No</td>
<td>8. Floor type: □ Carpet □ Tile □ Other: ______________________</td>
</tr>
<tr>
<td>2. Patient has access to: □ Small appliances □ Refrigerator □ Microwave □ Oven, stovetop □ Dishwasher □ Sink □ Outlets</td>
<td></td>
</tr>
<tr>
<td>3. Bed: □ Twin □ Double □ Queen □ King □ Hospital</td>
<td>4. Access to dresser? □ Yes □ No</td>
</tr>
</tbody>
</table>
### Bathroom

1. **Wheelchair and walker accessible?**
   - Yes
   - No

2. **Door:**
   - Width: _____
   - Threshold height: _____

3. **Bathtub:**
   - Modern tub
   - Clawfoot tub
   - Sliding door
   - Shower curtain
   - Overhead shower head
   - Hand held shower head
   - Height floor to bathtub rim: _____
   - Height bathtub bottom to rim: _____

4. **Stall shower:**
   - Height and width: _____
   - Door width: _____
   - Threshold height: _____

5. **Sink:**
   - Height and width: _____

6. **Toilet:**
   - Height from floor: _____
   - Distance from toilet to side wall: _____

7. **Grab bars:**
   - Yes
   - No
   - If no, type of wall material (plaster, plasterboard, etc.): ________________

8. **Equipment needed for bathing:**
   - ________________
   - ________________

9. **Equipment needed for toileting:**
   - ________________
   - ________________

10. **Non-skid mats/surface present?**
    - Yes
    - No

11. **Floor type:**
    - Carpet
    - Tile
    - Rugs
    - Other: ________________

12. **Can wheelchair turn around in bathroom?**
    - Yes
    - No

13. **Draw a floor plan.** Mark the location of doors, bathtub, shower, sink, grab bars, etc.

### Other Concerns

1. **Emergency phone numbers posted on or near phones?**
   - Yes
   - No

2. **Smoke detectors present and working?**
   - Yes
   - No

3. **Alternate/emergency exit?**
   - Yes
   - No

4. **Laundry area accessible?**
   - Yes
   - No

5. **Patient responsible for child care?**
   - Yes
   - No

6. **Hallways well lit?**
   - Yes
   - No

7. **Inside, will the patient have to use the stairs?**
   - Yes
   - No
   - If yes:
     - How many stairs: _____
     - Is a handrail present?
       - Yes, left side/right side/both sides
       - No
     - Is there a landing?
       - Yes
       - No

__________________________  __________________
Therapist/team member’s signature    Date
There are many types of manual wheelchairs. We will help you find the best type for you and your needs. Please ask if you have any questions or concerns.

<table>
<thead>
<tr>
<th>Type of Wheelchair</th>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transport</strong></td>
<td>• Lightweight&lt;br&gt;• Inexpensive&lt;br&gt;• Easy to push and transport&lt;br&gt;• Great for traveling&lt;br&gt;• Folds for storage</td>
<td>• No ability to self propel&lt;br&gt;• Lacks support&lt;br&gt;• Flimsy construction</td>
</tr>
<tr>
<td><strong>Standard</strong></td>
<td>• Less expensive&lt;br&gt;• Sturdy&lt;br&gt;• Good for short-term use</td>
<td>• Heavy and hard to propel&lt;br&gt;• Little ability to adjust for comfort&lt;br&gt;• Fixed arm rests and footplates</td>
</tr>
<tr>
<td><strong>Light weight</strong></td>
<td>• Foldable versions are great for traveling</td>
<td></td>
</tr>
<tr>
<td><strong>High strength light weight</strong></td>
<td>• Can be used as both a self propel and a transport wheelchair&lt;br&gt;• Sturdy and light weight</td>
<td></td>
</tr>
<tr>
<td><strong>Ultra light weight</strong></td>
<td>• Foldable versions are great for traveling</td>
<td></td>
</tr>
<tr>
<td>Type of Wheelchair</td>
<td>Pros</td>
<td>Cons</td>
</tr>
<tr>
<td>--------------------</td>
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</tr>
</tbody>
</table>
| Heavy duty         | • Great for patients over 250 pounds  
                     • Wider seat width  
                     • Foldable versions for easier transport | |
| Extra heavy duty   | • Great for patients over 300 pounds  
                     • Wider seat width | |
| Reclining          | • Reclining may be a more comfortable position for some patients  
                     • Good option for those who like to be able to sleep in their wheelchairs | • Weighs more  
                     • Can cause skin to breakdown due to poor positioning in the wheelchair |
| Tilt in space      | • Relieves pressure | |
| Hemi-height        | • Has a lower seat to floor height for foot propulsion | |

**Model options**

Most manufacturers offer both rigid and foldable options for the different types of wheelchairs (standard, light weight, heavy duty, etc.).

**Rigid:**
- **Pros:** Less hardware, so a lighter wheelchair. A good choice for active users. It has more component options available.
- **Cons:** Not foldable. Can be prone to tipping.

**Foldable:**
- **Pros:** Easy storage and transportation. It has swing-away leg rests.
- **Cons:** Not as durable as a rigid frame. Less ability to adjust the wheelchair for comfort. Not a good option for sports. Less component options offered.
Manual Wheelchair Components

Depending on the wheelchair type you select, you will need to make decisions regarding a variety of wheelchair components available from the manufacturer. Consider what options best fit your lifestyle and provide the best comfort. We are here to help as you make your selections.

Push handles
Push handles allow your caregiver to push the wheelchair and negotiate stairs and curbs. They can also be used as a place to suspend tote bags, backpacks and purses.

Wheelchair backs

**Sling backs:**
- Most common wheelchair back made of either non-breathable synthetic material or washable nylon (better option)
- Prone to fatigue and wear over time
- Can contribute to kyphosis or forward rounding of the back

**Solid backs:**
- Come in a variety of heights, depths and contours
- Easy to mount and remove

**Tension adjustable backs:**
- Has horizontal straps at preset intervals
- Straps can be loosened or tightened for trunk stability and lumbar support

**Custom backs:**
- Custom made wheelchair back for hard to fit patients
- Side supports can be attached to improve trunk stability

Wheelchair seats

**Sling seats:**
- Can wear down over time
- Can promote skin breakdown and pressure sores

**Solid seats:**
- Promote better posture
- Allow cushions to set properly in wheelchairs

Arm rests
Options include:
- Tubular
- Height adjustable or fixed
- Detachable, fixed or swing back
- Desk or full length
- Full or half lap trays - can be used for upper body support

Axle

**Quick release axle:**
- Standard on rigid chairs for easier transport in cars. Wheels detach with a push of the button.

**Threaded axle:**
- Standard on foldable chairs
- Wheels do not detach from the frame of the wheelchair
**Strut**

**Mag strut:**
- Heavier and more durable

**Spoke strut:**
- Lighter and less durable

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**Push rim**

Options include:
- Aluminum
- Friction

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**Tires**

**Solid tires:**
- Polyurethane tire needs the least maintenance but it lacks tread
- Best suited for indoor, non-carpeted surfaces

**Pneumatic tires:**
- Lighter
- More responsive
- Provide the best cushioning from impact
- Need maintenance and are prone to punctures
- Come in a wide variety of sizes, diameters and treads

**Semi-pneumatic tires:**
- Heavier
- Less shock absorbent
- Need little maintenance

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**Brakes**

Options include:
- Push to lock
- Pull to lock
- Scissor

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**Leg rests**

Leg rests are often standard equipment on reclining and tilting wheelchairs, options include:
- Standard leg rests
- Elevating leg rests with calf pads to lift legs to desired position

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**Foot rests**

Foot rests are often removable and swing away. Options include:
- Choice of foot plate styles to support the feet
- Choice of footrest hangers so lower legs are at a comfortable angle

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**Cushions**

Wheelchair cushions relieve pressure, prevent skin breakdown, and improve stability and comfort. Different types include:
- Foam
- Foam with gel inserts
- Gel
- Floam
- Honeycomb
- Fluid
- Air
- Hybrid
Caring for Your Manual Wheelchair

Your wheelchair is a machine that will help you to be more active and mobile. Check the wheelchair often to be sure that it is working well and safely. There may be a maintenance contract with the purchase of the wheelchair. Check your contract to see what service is provided. You may also be able to contact your wheelchair vendor — the company that sold you the wheelchair — to provide repairs and service as needed. Many vendors will do yearly wheelchair checks and make repairs as needed. Also, be sure to ask your vendor or therapist if you need adjustments or changes as you use the chair.

This handout has a list of things that you may need to check on your wheelchair, depending on the type of accessories you have. It is best to check your wheelchair every month and anytime you think there may be a problem.

**Arms**

- **Armrests** – Check for sharp edges, cracks and burrs on screw heads. Be sure the screws do not come through the arm padding.
- **Detachable arm assemblies** – Fit should be secured, but not binding.
- **Adjustable height arms** – Check the fit on the upper telescoping portion. Check at each height to be sure it locks in place.
- **Arm locks** – Locks should engage squarely and fully.
- **Side panels** – Check for any sharp edges or cracks. Be sure the fasteners are all present and tight.
Back

- Check the material for any rips and tears. It should fit with the same tightness from top to bottom.
- Be sure all hardware is present, tight and installed through metal reinforcing strips.
- Check the back-post brace joints for cracks. Be sure the post is not bent or damaged.
- Check removable hardware of rigid back to be sure it is tight and that the lock and release mechanism work properly.
- Handgrips on the push handles should fit tight and secure and not rotate on the posts.
- Check the safety belts for fraying. Check hardware for tightness.
- Headrests should work well and be put on correctly.
- Reclining back – Check all adjustments to be sure they work the right way. Check the nut and bolt to be sure they are tight. Look for signs of wear, such as cracks, fraying or tears.
- Check folding mechanism of rigid wheelchair locks and unlocks properly.

Seat, cross braces and frame

- Check the seat material for rips and tears. The material should be tight from front to back.
- Check that all hardware is present and tight and fits through reinforcing strips. Check for stripped screws and burrs on screw heads.
- Carrying or lifting straps should not be frayed or worn.
- Fold chair to see if cross braces are sticking. Sight down seat rails to check for bent rails or cracks. Check that center pin nut is on and secure.
- Front post slides – Fold chair fully and sight check the straightness and roundness of both posts. Open chair fully and check front posts to be sure they do not hit crown of caster fork. Again fold chair and check that front post does not come out of frame socket.
- Seat rail guides – Check that guides are present and serviceable. With chair open, make sure seat rails fit firmly into seat rail guides.
- Tipping lever sleeves – Be sure they do not rotate on tipping lever and are serviceable.

Wheel locks

- Check tire pressure on pneumatics before checking the wheel locks.
- Locks should securely engage the tire surface and prevent the wheel from turning.
- Rubber tips are present on locks and not cracked or split.
- Hill climbers – Check for proper operation.
- Check lock grips to be sure they are within reach and are not cracked or sharp.
Tires

- Check wheels for wobble or side play called trueness. When it spins, it should spin smooth and straight.
- Strum spokes to check for equal tightness. Check for missing spokes.
- Check wheel for side play. This could be a sign of worn bearings or poor adjustment.
- Check tires for excessive wear or a gap at the joined section.
- Pneumatic tires – Check for cracking or excessive wear. Check tire pressure and adjust as needed.
- Solid tires – Check for cracks or worn areas.
- Axles and axle lock nuts – Anytime the wheels are removed be sure to check the threads as well as the bushings and nuts.
- Quick release axles – Push plunger pin in. Steel balls at other end should be loose and recessed. Release plunger pin and balls at other end should be raised and solid.
- Take quick release axles off weekly. Put a few drops of white lithium grease on a clean cloth and pull it through the axle receptors and bearings. Then wipe off the axles. Place the wheel back on the same side.
- Hub caps should be in place.
- Hand rims and attaching hardware – Check for rough or sharp edges. Check for secure attachment. Look to see that all hardware is present. Rubber tips are in place and free of cracks or splits.
- Axle plates – Make sure plates are secure. If you have camber or toe in or out, make sure you have the same configuration of washers on both sides.
- Axle sleeves – Make sure distances are the same from front to rear.

Casters

- Forks and retaining mechanism – Check for signs of bending on sides and stem. Be sure stem is firmly attached to fork. Check threads and locking nut or retaining ring.
- Stem bearings – Check for excessive play, up and down, as well as back and forward.
- Wheels and bearings – Check for excessive wobble in bearings. Check axle and nut for stripping. Be sure felt washers or string guards are present.
- Check tires for excessive wear. Be sure tire is secure on rim. Check and adjust the pressure on pneumatics as needed.
- Caster housing – Select a level surface and roll check chair. If chair veers more than a foot in a ten foot distance, check frame for damage. Check alignment of housing on frame. Check fork and stem for bent condition.
Footrest and leg rest (front rigging)

- Put the lock mechanism on and check for a secure fit. Lock should be placed on and released without problem. Check frames for damage.
- Heel loops – Check hardware to be sure it is tight and in good condition. Check for rips, tears or fraying.
- Footplates and footplate springs – Check for sharp edges. Spring should hold footplate in any position.
- Length adjustment hardware – Check that all hardware is present and in proper adjustment. Look for any damage. Fit should be tight enough that it does not rotate in the hanger tube.
- Leg rest panels or straps – Check for sharp edges. Check all attaching hardware. Check for cracks, splits or fraying.
- Leg rest adjustment rod – Be sure all hardware is present and properly adjusted. Check the rod for scoring. There should be smooth, secure locking in all positions.
- Check angle is correct for foot or footplate.

Hand rims

- Check for loose screws and tighten them as needed.

Metal parts

- Spray the chrome or painted parts with stainless steel spray and wipe clean. Soiled, moving parts will not work well.
- Wipe on car wax with a damp cloth, let it dry to a haze and wipe it off with a dry cloth.

Upholstery

- Wipe down with any household spray cleaners, like Windex or 409.

Telescoping tubes (one time each year)

- Clean the tubes and rub a little paraffin or candle wax. Don’t use oil. It just collects a lot of dust.

Wheel bearings (one time each year)

- Check for side play or wobble. Wobble means your bearings are worn and should be replaced.
Front caster (one time each year)

1. Take off front wheel and pop out the bearings. Check them out and clean or replace them.
2. Remove cap on stem housing. Remove the nut holding the stem. Pull out the wheel, fork and stem. As before, tap out the bearings in the caster housing. Check, clean and replace them.
3. Tighten the caster to where it just about swivels. If you leave it too loose, your front casters will wobble at faster speeds.

Other

- Remember to store your wheelchair indoors in a cool and dry area.
- If you have to take your wheelchair outside in inclement weather, make sure to dry it off when you are indoors again.
- If you notice issues with your wheelchair, such as not rolling properly or damaged parts, contact your vendor right away for service.
Power Wheelchairs

A power wheelchair may be a good option if you are unable to propel a manual wheelchair or if you are concerned about upper body muscle strain. A power wheelchair has many component options, cannot easily be broken down and requires special transportation. To qualify, you must be 100% safe driving the wheelchair.

**Types of power wheelchairs**

**Front-wheel drive power wheelchair:**
- Easier operation, including turning tight corners
- Closer access

**Mid-wheel drive power wheelchair:**
- Better turning radius
- Better traction
- Popular with customers

**Rear-wheel drive power wheelchair:**
- Best stability and speed

**Power assist system:**
- Provides power assist to a manual wheelchair.

**Accessory options**

**Joystick:**
- Mounted on the left or right side.
- Knob options include: small ball (standard), T-bar, U-shaped, large ball, rubber dome, mushroom head, chin cup, finger tube, straight bar, wrist plate, stadium post or custom.

**Power tilt:**
- Relieves pressure to help prevent skin breakdown and pressure sores.
Caring for Your Power Wheelchair

Your wheelchair is a machine that will help you to be more active and mobile. Check the wheelchair often to be sure that it is working well and safely. There may be a maintenance contract with the purchase of the wheelchair. Check your contract to see what service is provided. You may also be able to contact your wheelchair vendor — the company that sold you the wheelchair — to provide repairs and service as needed. Also, be sure to ask your vendor or therapist if you need adjustments or changes as you use the chair.

This handout has a list of things that you may need to check on your wheelchair, depending on the type of accessories you have. It is best to check your wheelchair every month and anytime you think there may be a problem.

Arms

- Armrests – Check for sharp edges, cracks and burrs on screw heads. Be sure the screws do not come through the arm padding.
- Detachable arm assemblies – Fit should be secured, but not binding.
- Adjustable height arms – Check that the arms are aligned on both sides.
- Arm locks – Locks should engage squarely and fully.
- Side panels – Check for any sharp edges or cracks. Be sure the fasteners are all present and tight.
Back

- Check the material for any rips and tears. It should fit with the same tightness from top to bottom.
- Be sure all hardware is present, tight and installed through metal reinforcing strips.
- Check the safety belts for fraying. Check hardware for tightness.
- Headrests should work well and be aligned correctly.

Disengage motor lever

- Ensure that the lever is still working and you can engage and disengage the motor safely.

Tires

- Check tires for excessive wear or a gap at the joined section.
- Pneumatic tires – Check for cracking or excessive wear. Check tire pressure and adjust as needed.
- Solid tires – Check for cracks or worn areas.
- Hub caps should be in place.
- Check alignment of casters.

Footrest and leg rest (front rigging)

- Calf pads – Check hardware to be sure it is tight and in good condition. Check for rips, tears or fraying.
- Footplates and footplate springs – Check for sharp edges. Check that footplates are aligned.

Metal parts

- Spray the chrome or painted parts with stainless steel spray and wipe clean. Soiled, moving parts will not work well.
- Wipe on car wax with a damp cloth, let it dry to a haze and wipe it off with a dry cloth.

Upholstery

- Wipe down with any household spray cleaners, like Windex or 409.

Batteries

- Wear eye goggles to prevent splashing into eyes. Check the water level of lead acid batteries. If low, refill using distilled water.
- Check the connections. If there is any white crust on the terminal, remove cables and clean with a battery brush. Use a cotton swab or a gloved finger to apply a light coat of plain petroleum jelly to the battery terminals. Then hook the connections back up.
Other

- Remember to store your wheelchair indoors in a cool and dry area.
- If you have to take your wheelchair outside in inclement weather, make sure the joystick and electronics are protected from the elements.
- If you notice issues with your wheelchair, such as battery not holding a charge or not driving correctly, contact your vendor right away for service.

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Taking a Wheelchair Up and Down Stairs and Curbs

**Going up the stairs**

Two people are needed to get the wheelchair up the stairs. Do NOT try this with one person. It is unsafe. The stronger of the two people should be behind the wheelchair. This person will do most of the lifting.

1. Back the wheelchair up to the stairs.
2. Get into position:
   - One helper gets on the stairs and holds the handles. **Make sure that the handle grips do not slip off.** Have one foot on the step above the wheelchair and the other foot on the next higher step.
   - The other helper gets in front of the wheelchair and holds onto its frame just above the front wheels. **Do NOT hold onto any parts that can come off, such as the footrests or armrests.**
   - Both helpers should bend their knees and arch their backs before lifting.
3. Together, both helpers tilt the wheelchair back finding the balance point where only the back wheels are on the ground.
4. Gently lift and roll the wheelchair up onto the next step. If the person in the wheelchair is able to help, he or she should pull back on the wheels.
5. The helpers should reposition themselves on each step after each lift.
6. After going up all the steps, keep the chair tilted back until the front wheels clear the top step. Gently lower the wheelchair so that all four wheels are on the ground.

**Going down the stairs**

You will need two people to get the wheelchair down the stairs. Do NOT try this with one person. It is unsafe. The stronger of the two people should be behind the wheelchair. This person will do most of the lifting.

1. Roll the wheelchair forward to the stairs.
2. Get into position:
   - One helper gets in back of the wheelchair and holds onto the handles. **Make sure that the handle grips do not slip off.**
• The other helper gets on the stairs in front of the wheelchair and holds onto its frame just above the front wheels. **Do NOT hold onto any parts that can come off, such as the footrests or armrests.** Have one foot on the second step and one foot on the third step.

• Both helpers should bend their knees and arch their backs before moving the wheelchair.

1. Together, both helpers tilt the wheelchair back finding the balance point where only the back wheels are on the ground.

2. Gently roll the wheelchair down each step.

3. The helpers should reposition themselves on each step after each lift.

4. When the chair is at the bottom of the stairs, gently lower the wheelchair so that all fours wheels are on the ground.

### Going up a curb

1. Push the front wheels of the wheelchair straight up to the curb.

2. Tip the wheelchair back and put the front wheels up on the curb.

3. Push the wheelchair forward until the back wheels are in contact with the curb.

4. Use your hip on the back of the wheelchair to push it forward and up onto the curb.

### Going down a curb

1. Turn the wheelchair around facing away from the curb.

2. Step carefully off the curb.

3. Slowly roll the back wheels off the curb, blocking the back with your hip.

4. Maintain a wheelie as you back the front wheels and legs away from the curb. Once cleared, slowly lower the front wheels and turn the wheelchair around to go forward.
How to Adapt an Entrance for a Wheelchair

If you use a wheelchair, you may need to change the entrance of your home for easier access. You may need to have sidewalks, ramps, platforms and lifts installed. Check with your city about the building codes, rules and regulations that may affect installation. Building permits may be required.

Sidewalk leading to a ramp

Sidewalks are recommended to be at least 36 inches wide to accommodate the average width of a wheelchair of 27 to 29 inches.

- Use solid materials for the sidewalk, such as cement, brick or wood. They provide a smooth surface for the wheelchair to travel over and make snow removal easier in the winter.
- Make the sidewalk slightly higher than ground level so that water will drain.

Ramps

Plan for a ramp to be 3 to 4 feet wide. The length of the ramp depends on the total height of your entry steps (ground to threshold rise). The standard ratio for ramps is 1:12. This means each inch above the ground (rise), you will need 12 inches or 1 foot of ramp length.

- Use a non-slip surface on the top of the ramp, such as a “brushed” surface on cement. A commercial non-slip floor covering or safety treads may be preferred for other surfaces. Paint mixed with sand is another option to provide a non-slip texture.
- Add lighting to make the ramp safe for night time use.
- Avoid building over stairs, to allow guests stairway entry.
- Improve curb appeal by adding shrubs and landscaping near the ramp.

- Ramps longer than 30 feet will need a landing for safety. Mark the beginning and ending of each ramp section with contrasting paint or tape for safety.
- Use solid materials for the ramp, such as wood, cement or metal.
Landings and platforms

An entry platform, level with the threshold, is required at the door. This platform needs to be a minimum of 5 feet wide by 5 feet long.

The landing at the bottom of the ramp should be at least as wide as the ramp and at least 5 feet long. If a turn is required at this landing, the minimal size is 5 feet wide by 5 feet long.

Level platforms are needed to break up ramps that are longer than 30 feet. If a 90 degree turn is needed, the platform must be 5 feet wide by 5 feet long. If a 180 degree turn is needed, the platform must be 5 feet wide by 8 feet long.

Handrails

Handrails are required if a ramp has a 6 inch rise or greater, or if the ramp is longer than 6 feet (72 inches).

Handrails need to:

- Be 2 inches in diameter (wood) or at least 1 ½ inches in diameter (metal).
- Extend 3 inches out from the ramp support posts and walls.
- Be mounted 30 to 34 inches above the ramp surface.
• Extend 1 foot (12 inches) past the end of the ramp and end at a post / wall or be rounded off.
• Have ramp guardrail installed 36 inches above the ramp surface.
• Have a wheel guide installed, at least 2 inches high, along both sides of the ramp floor. This will prevent the front wheels of the wheelchair from slipping off the ramp edge.

**Electric porch lifts**

Porch lifts can be more expensive than ramp construction. If there is not enough room for a ramp or if extensive ramping is required, a lift becomes an affordable option. Search for local suppliers at [www.yellowpages.com](http://www.yellowpages.com), using the search term “wheelchair lifts & ramps”. The lifts are weather proof and have a lock and key for safety and security.

**Lift considerations:**

• **Lifts must sit on a sturdy platform of 5 feet wide by 5 feet long.** Cement, bricks or patio blocks may be used.

• **You will need an outside electrical outlet.**

• **An outside light is needed for safety.**

• **You may need to build a platform “bridge” from the lift (in its raised position) to the entry door.** This platform should be at least 5 feet long.

• **The lift should be able to handle a load of 300 to 400 pounds.**

• Lifts can be ordered or adjusted to meet a variety of heights.