

COMMONWEALTH of VIRGINIA

DEPARTMENT OF
BEHAVIORAL HEALTH AND DEVELOPMENTAL SERVICES

Post Office Box 1797 Richmond, Virginia 23218-1797 Telephone (804) 786-3921 Fax (804) 371-6638 www.dbhds.virginia.gov

Office of Integrated Health – Health Supports Network Health & Safety Alert/Information Wheelchair Safety and Maintenance

Introduction

NELSON SMITH

COMMISSIONER

Wheelchairs are the most commonly used pieces of durable medical equipment (DME) by individuals with a disability (22) (10). Approximately 13.7 percent of the population has some type of disability which reduces their ability to walk and or climb stairs (20). There are approximately 2.7 million wheelchair users in the United States (10). Globally there are an estimated 67 million people who need the use of a wheelchair for mobility and independence (22).

Individuals with a disability who require the use of a wheelchair can experience many types of discrimination, prejudices and road blocks to independence. Accessibility is one of the main roadblocks for wheelchair users which limits, and or in some cases, completely separates individuals from interacting within their communities. Other barriers wheelchair users experience often relates to: 1) a lack of access to assistive technology; 2) negative attitudes toward their disability; and 3) policies or systems which hamper involvement in services for the disabled population (19).

The Americans with Disabilities Act (ADA) attempts to address many of these issues. Signed into law, by the U.S. government in 1990, the ADA is meant to protect individuals with disabilities rights. It forbids discrimination against individuals with disabilities involving employment, transportation, any public spaces, communications, and entry into state or local government services or programs (1).

Wheelchairs serve many important roles for the individual within the community and at home. Transportation to:

- Medical appointments, visits to the hospital, physician, testing, etc.
- Educational venues, grade school, college, etc.
- Community events, concerts, fairs, parades, visiting friends, etc.
- Recreational events, parks, the beach, the pool, a restaurant, etc.
- Evacuation from a fire or any unsafe environment.

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 Wheelchairs also function as a positioning device for the individual's activities of daily living. Example: eating, brushing teeth, working on the computer, watching tv, etc.





Wheelchair Safety and Comfort

Safety for the individual starts with comfort and correct positioning. If the individual is experiencing extreme discomfort, pain, pinching, rubbing, etc., the wheelchair is unsafe, and the individual should be removed from it and an investigation into what is causing the discomfort should begin (15).

Some things to consider:

- Is the seat cushion damp or wet? A damp cushion can cause rubbing or chafing.
 An individual should never be placed in a wheelchair if the seat cushion is even slightly damp. The seat cushion should always be completely dry before the individual is placed in the wheelchair.
- Is there a fastener, belt, bolt, or screw that is rubbing against the individual's skin?
- Is the individual accidentally sitting on something they may have dropped? Examples: crayons, pens, food.

If the caregiver is unable to determine the cause of the discomfort, an appointment with the wheelchair vendor and/or the individual's PCP (for a referral to a physical therapist), should be scheduled immediately.

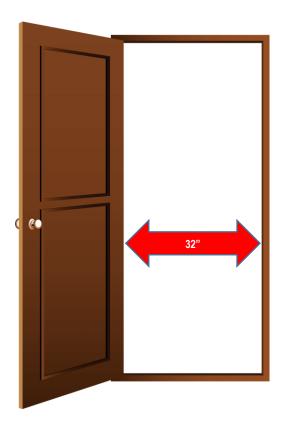
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Environmental Safety for Wheelchair Users

In order to make access easier for wheelchair or walker users, doorways will need to be wider than most standard doorway widths. A width of at least 32" is considered suitable in most cases. Sufficient floor space should be left open so that wheelchair and walkers can be turned easily and are able exit the space. The following figures provide recommended min/max measurements for various areas of a home (2).

- Interior openings for all doors: 32".
- Standard wheelchair footprint: 30 x 48".
- Minimum space to maneuver a standard wheelchair on the spot: 60 x 60".
- Corridors and access routes: 36".
- Table/work surface height: 28 32".
- Typical knee clearance height for underside of desks and tables: 27 29".
- Maximum access ramp slope: 1:12.
- Maximum general ground slope (parking spaces, driveways, aisles etc.): 1:48 (2).



The inside opening of interior doorways should be at least 32 inches.

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How to Make Doorways More Wheelchair Accessible

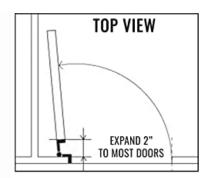
Some doorways may not be wide enough to accommodate the dimensions of a wheelchair. Here are a few suggestions to make doorways more accessible:

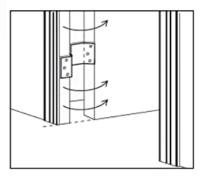
- Install Offset or "Z" Hinges These components enable doors to swing clear of the doorway. They can add 1 to 2 inches of clearance. The great thing about offset hinges is that they are relatively inexpensive and easy to install. In addition, they create ample space that is wide enough for the width of an ordinary wheelchair.
- Remove the door trim to increase passageway clearance. A carpenter may be needed.
- Widen the door frame. A carpenter may be needed.



INSTALLATION INSTRUCTIONS

- Remove existing hinges from door jam and door. SAVE ALL SCREWS.
- Attach the door hinge to the door by placing the part with the DMI stamp onto the door. Use the same screws removed in Step 1, and screw into existing holes. Repeat this step to attach second hinge.
- Attach the other side of the door hinge to door jam (counter sink holes facing you). Use the screw into existing holes.
 Repeat this step to attach second hinge.





Promoting Safety of Wheelchair Users

The promotion of wheelchair safety starts before the wheelchair is even purchased. It should begin with a thorough assessment by a team of professionals, to include a Physical Therapist, Occupational Therapist, Assistive Technology Professional, and a physician. The team of professionals should work together with the individual, their caregivers, and family members to come up with the best fitting wheelchair which suits

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the individual (23) (24). To locate a certified assistive technology professional contact Rehabilitation Engineering Assistive Technology Society of North America (RESNA) at www.resna.org or call (703) 524-6686.

Whenever receiving a new wheelchair or getting a replacement, it is important to have the sales representative give directions to the individual, their caregivers and or family members on the wheelchair's proper use. The first use of the wheelchair should be observed within the environment it will typically be used to discuss any safety issues related to the wheelchair and the individual. It's a good idea to review the wheelchair manual when it's first delivered and periodically (23) (24).

A wheelchair assessment is recommended every 6 months to ensure all aspects of the wheelchair remain in working order. Nuts and bolts might need to be tightened, some fabrics may be wearing thin, or breaking. Ask the wheelchair sales representative if maintenance wheelchair checks are covered by their organization or is the individual responsible (23). Many durable medical equipment providers do offer periodic safety checks, and repair.

Another resource is the Office of Integrated Health – Health Supports Network's Mobile Rehab Engineering Team or MRE Team. This gap service is available to individuals with intellectual or developmental disabilities who do not have services available to them within their community. The MRE Team provides durable medical equipment (DME) repairs and power washing services. For more information, and/or to request services, please email the MRE Team at: mreteam@dbhds.virginia.gov. There is also additional information relating to the MRE Team, on the DBHDS website, which can be found at this link: mttps://dbhds.virginia.gov/office-of-integrated-health/health-support-network/mobile-rehab-engineering/

*Please see Appendix A on page 18-21 of this Health & Safety Alert for Form #101 Request for Durable Medical Equipment Services, for your convenience. Please email the MRE Team at: mreteam@dbhds.virginia.gov to receive a downloadable, fillable version of the form.

Head Supports Increase Safety

Seating systems, with head support attached to a seatback, are usually crashworthy and reduce the potential for neck injury in both frontal and rear crash scenarios (9). If unsure, look for the WC-19 safe transport label to be sure. (See page 8 of this alert for more information about WC-19).

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In order to maintain safety of the individual, head supports are necessary and offer some degree of head restraint, in those wheelchairs used regularly to transport an individual (9).

Lowering Risk for Wheelchair Related Falls and/or Tipping

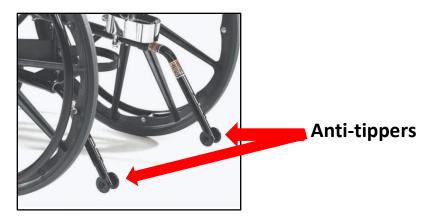
Tipping forward, backward or sideways is by far the most common cause of accidents for wheelchair users. There are many factors which can increase the likelihood of tipping, including:

- Loose, broken or missing wheelchair anti-tippers. (Make sure wheelchair anti-tippers are in place and working efficiently.)
- Excessive speed.
- Fast cornering.
- Rough, lose or slippery ground, and other unsuitable surfaces.
- Unbalanced sitting positions.
- Incorrect or ignored use of parking brakes, tipping levers and balance casters.
- Unseen or underestimated obstacles.
- Reaching for items positioned behind wheelchairs is a common cause of tipping; always position the chair as close as possible to the item and make use of any balance casters. Only reach as far as a single full arm extension (do not shift position in your seat for extra reach).
- Leaning forward further away than a full arm length should be avoided, position the wheelchair closer to the item and engage wheel locks and castors before reaching over.
- Fully engage and lock wheelchair brakes when helping an individual transfer in/out of a wheelchair.
- Move footrests completely out of the way during transfers, in order to reduce the risk of a tripping or tangling hazard.
- Keep lap covers, hands, coats, and any other loose or dangling items well clear of wheels, spokes and other rotating mechanisms.
- Don't unbalance the chair by hanging heavy or bulky items from the back or sides.
- Avoid curbs, steps or humps that are greater than 2" in height; anti-tipping levers are strongly recommended for negotiating such obstacles
- Always approach curbs and steps with the backrest in its fully upright position; approach them head-on, never at an angle.

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- Keep the chair moving continuously until completely clear of the obstacle.
- Avoid ramps or slopes that are steep enough to cause significant difficulty.
- While ascending or descending, avoid sudden or severe steering, which may increase risk of tipping.
- Tackle inclines as directly 'head-on' as possible (maneuvering sideways dramatically increases the risk of tipping).
- Only use parking brakes to lock and secure a wheelchair once fully stopped.
- Do not attempt to use brakes as a means to slow down or stop the wheelchair when it is in motion.
- Try to avoid obstacles or uneven terrain in wet conditions.
- Avoid pulling heavily on doors, cupboards, drawers and other movable or stuck objects while seated in a manual wheelchair. Doing so will shift your center of balance significantly, at which point sudden opening or release can easily cause you to tip over (18).



Wheelchair **Anti-Tippers** can help lower risk of a backward wheelchair tip-over.

Best Practice Safety Standards for Transportation

Best practice standards for wheelchair transportation within a moving vehicle, (within the United States) are developed by the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), who has published a set of compliance standards based on the WC-19 safety rating (14).

RESNA is the premier professional organization dedicated to promoting the health and well-being of people with disabilities through increasing access to technology solutions.

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What is a Wheelchair Transport Safe Label?

If a wheelchair has a "transport safe" label, it means the wheelchair has:

- Been designed for use as a seat in a motor vehicle.
- Performed well and met established industry standards during motor vehicle crash tests.
- Complied with the strict WC-19 safety standards established by RESNA.



What Features Special Features do WC-19 Wheelchairs Have?

- A WC-19 compliant wheelchair has features that make it easier and safer to secure with a 4-point strap-type tie-downs.
- A WC-19 compliant wheelchair is designed so that the person securing straps can do so easily and usually with one hand.
- A WC-19 compliant wheelchair has also passed a standardized crash or sled test, and has survived with little or no structural damage.
- Wheelchairs that are WC-19 compliant, have passed standardized tests that have proven their ability to withstand the forces of a 30-mph/20-g change in velocity.
 This is basically the same crash test that all automotive equipment must survive.
- Part of the requirement of the WC-19 standard is labeling the wheelchair and the 4 securement points so that it can be clearly recognized as safe for use as a seat in transportation vehicles.
- If you are unsure if your wheelchair meets this standard, the manufacturer of your wheelchair can provide more information about how the wheelchair performed in testing.
- You can check to see if your wheelchair is on the WC-19 compliant list <u>here.</u>
- A checklist of criteria for complete compliance of WC-19 can be found here.

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Recommendations for Caregivers Routine Safety Inspections

Regular cleaning, inspections and maintenance will not only extend the life of a wheelchair, it will lower the risk of injury to the wheelchair user. Developing a regular maintenance routine that involves cleaning, inspecting and adjusting all critical components of a wheelchair and seating system is recommended. Usage, climate, environment and wheelchair type all dictate how often a wheelchair needs to be serviced (21).

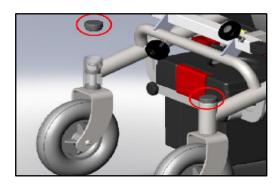
Below is list of wheelchair components which should be inspected at regular intervals (21). *Please see page 13 of this Health & Safety Alert for a Manual Wheelchair Inspection form you can use for your convenience.

- If the wheelchair has removable leg rests, foot rests, arm rests and back rests –
 check them and make sure they can be released and returned easily. If not, they
 may need to be repaired.
- If the wheelchair has a tilt feature, check to see if it smoothly reclines and returns upright without difficulty.
- Carefully check the axles, wheels, casters and tires. Use a sharp tool or pick and carefully clean the wheel axle or caster bearing of any accumulation of hair, string or any other items that can interfere with the rotation of the wheels.
- Check the tires and make sure there is at least some tread left on the tires.
- Check the frame for any cracks or breaks in the metal, paying careful attention to areas that sustain significant stress, such as the cross-brace of a folding wheelchair and the caster housing. Any potential problems need to be reported to your wheelchair dealer/vendor for repairs.
- Check your wheelchair locks/brakes. Make sure they release properly, without having to use excessive force. Make sure they do not rub against the tire.
- If it is a folding wheelchair, ensure that it opens and folds easily. The folding mechanism requires lubrication at least once a year, more if you live in a humid or wet climate, which can cause rust to form.
- Ball bearings will also need lubrication. Most manual wheelchairs have sealed bearings or wipers to discourage water and dirt from damaging them. Bearings require special care and should be serviced by a trainer specialist.

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- Check your wheel alignment monthly. If a chair tends to veer to one side while coasting, the wheels might be out of alignment.
- Check to see if all end caps on the wheelchair frame are securely in place. If any are missing, please fill out a request form for MRE Team services. Why? Insects, spiders and roaches love to hide inside the hollow wheelchair frame tubing, when the end caps are missing, which can cause a health hazard and risk infestation of the home. In addition, if the frame end caps are missing when the wheelchair is washed, water will get inside the frame and will cause it to rust. Below is a picture of some caster end caps. However, you will find end caps located in various places on the wheelchair frame tubing.





General Wheelchair Cleaning Instructions

- Proper and routine cleaning, care, and maintenance of a wheelchair is necessary to keep it in proper working order and may extend the life of your equipment.
- Start by wiping down your wheelchair with a clean, damp cloth on a regular basis.
 A weekly wipe down will remove any dirt and grime build-up that can affect the efficiency of wheels and brakes.

TIP: Applying car wax to the wheelchair frame can make it easier to perform routine cleanings.

• For dried food or dirt on the wheelchair frame, you can use a multipurpose cleaner, then follow-up with a wipe with water only after, then pat dry.

TIP: Baby wipes are convenient and are very useful for wiping off food or dirt from any type of DME, and will typically not cause any skin irritation to the wheelchair user.

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- An inspection of the wheelchair cushion should be performed every week. This will keep the cushion clean, will reduce the risk of infection and will also help to extend its lifespan.
- Before removing a cushion, you should note its exact location and position in the chair to that it can be returned to its proper place.
- Many cushions have a cover that has either a zipper closure or a Velcro closure.
 If the cushion has a cover, simply take it off and wash it in the washing machine
 on the delicate cycle in either cold or warm water, then hang to dry or tumble dry
 on-air fluff (no heat), as the heat cycle might cause some fabrics to melt and cause
 damage.

TIP: When cleaning check whether the cushion under the cover has tears, cracks, etc. If you are not sure if it still providing the padding and support needed for the individual, consult an Occupational Therapist for advice and/or evaluation.

- Fluid-filled and gel cushions with permanent covers: wash with a soft cloth with hand soap and water then wipe with a water only clean cloth, then towel dry.
- Stretchy matrix or honeycomb cushions: these are made to be easily cleaned.
 They come with a washing bag in which they can be machine laundered, and can
 usually be tumbled dry on low heat. Please follow the manufacturer's instructions.
 If unsure, always air dry!

Caring for Foam Cushions and Custom-Molded Foam Seating Systems

Some wheelchair cushions and custom-molded seating systems are made from various foam or polystyrene. Polystyrene does not withstand extreme heat well (6).

Excessive heat can cause polystyrene foam to shrink or collapse in on itself. Once
collapsed, the air escapes and the foam on the cushion, which was once soft and
comfortable for the user, will become rigid and hard. If you have ever put boiling
water in a Styrofoam cup, or placed a Styrofoam cup in the microwave, you have
seen the type of damage excessive heat can do to foam.

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• To reduce the risk of foam and/or polystyrene collapse, never store wheelchairs with custom molded seating in parked vehicles (not running with closed windows) in warm weather. Temperatures in parked vehicles can approach two hundred degrees on very hot days, which can cause custom molded foam wheelchair seating to melt and collapse causing it to become very stiff and hard. If this occurs in the future, or has occurred, please email the OIH MRE Team at: mreteam@dbhds.virginia.gov for assistance and resources.

Do not wash open cell foam cushions with liquid. Liquids can damage them. If the foam cushion becomes wet, try the following:

- After the individual has been moved off of the cushion, sprinkle cornstarch on the moist spot and allow it to dry. The starch should soak up the liquid. This can take several hours.
- Once fully dried, carefully vacuum off the starch and check the foam. If it looks broken, the cushion will need to be replaced.
- Do not allow the individual to sit on a damp or wet cushion, since wet skin can be quickly and easily damaged. Always wait until the cushion is completely dry before allowing the individual to use the wheelchair.

Cleaning Underneath Wheelchair Seat Cushions

 Wheelchair cushions should be cleaned regularly to maintain proper hygiene, prevent skin irritation, and prolong the cushion's lifespan. Regular cleaning helps prevent the buildup of odors, dirt, moisture, and bacteria, which can lead to skin breakdown and other health issues.

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Once the cushion has been removed, take a good look under where the cushion
was positioned to see if there is any build-up of hair, food, dirt, etc. Brush off any
dry particles with a soft brush and then wipe area with a cloth with dish detergent
or hand detergent and water, then wipe with water only, then pat dry.





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Manual Wheelchair Inspection Individual's Name: Date: **Brand Name of Chair:** Inspect the wheelchair at a time when it is not in use by the individual. There are seven parts to a *Manual Wheelchair Inspection*. Each part has instructions to follow. Refer to the wheelchair diagram at the end of this form. Put a check in the box beside all of the tasks which need to be done. All wheelchairs should be inspected at least once per month. Keep this form for your records so that you know when this wheelchair was last inspected. Use this form each time you repeat the assessment (Agency for Healthcare Research and Quality (AHRQ, 2017). **Section 1. General Cleaning and Lubrication** Inspect the joints to see if they are dry. Check the chair for dirt and dust. ____ If dirty, clean all parts of chair with soap and water. Wipe clean. ____ If slide does not move smoothly when you fold chair, spray slide post and into slide tube. Use white lithium, silicone, or teflon-based spray grease (not WD-40). _ If joints are dry, spray with silicone. Section 2. Frame Check Check for loose fasteners, stripped screws, etc. Choose a level surface and roll the chair. If the chair veers off to one side more than 1 foot as it moves forward 10 feet, check the frame for bends or damage. Inspect the fork and stem of the casters for bent condition. Are any fasteners or screws missing? □No □Yes Are anti-tippers in place? □No □Yes Are anti-tippers worn, cracked or bent? □No □Yes Are rail posts bent or cracked? □No □Yes Does the frame have any cracks or loose welds? □No □Yes Is the lifting strap worn or broken? □No □Yes Section 3. Wheel and Caster Check Watch for side play of the wheels and casters while the chair is moving. Inspect the hubcaps, handrims, axles, stem bearings, washers and spoke guard. Check if the tire is on the rim. Inspect solid tires for cracks or worn areas. Check the casters for free movement. Are any bearings, nuts, or washers missing or worn? □ No □ Yes □ L □ R Are any wheel spokes uneven or bent? □No □Yes □L □R Is handrim loose? □No □Yes□L □R Are any rubber tips missing or worn? □No □Yes □L □R Are casters worn, cracked, bent or uneven? □No □Yes □L □R Are casters unable to move freely due to dirt and grime? □No □Yes □L □R Are tires inflated? □ No □ Yes □ L □ R Are tires cracked or worn? □No □Yes□L □R

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Section 4. Brake Check

chair in place. Check if the brake handles have rubber tips and insp		-	
wear.			
Is the brake loose?	□No	☐ Yes ☐ L	□R
Does the brake keep the tires from moving?	□No	☐ Yes ☐ L	□R
Is the brake lever or latch worn?	□No	☐ Yes ☐ L	□R
Is the rubber tip on the brake end worn or missing?	□No	☐ Yes ☐ L	□R
Section 5. Armrest Check			
Check both armrests for padding, sharp edges, screws which stick cover. Check if the armrests are secure and all fasteners are tight. posts fit into the frame.			
Are armrests wobbly, loose or missing?	∏No	□Yes □L	Пп
Are armrest covers cracked?	□ No	☐ Yes ☐ L	□R
Do armrests have sharp edges?	□No	☐ Yes ☐ L	□R
Do any screws stick out through the padding?	_ □ No	☐ Yes ☐ L	□R
Do armrests fit into frame tightly without slipping?	No	YesL	 □R
Section 6. Seat and Back Upholstery Check			
Inspect the seat and back upholstery for cracks, tears and sagging	. Check	for missing h	ardware.
Is any hardware loose or missing?	□No	☐ Yes ☐ L	□R
Is the seat or back upholstery cracked or torn?	□No	☐ Yes ☐ L	□R
Does the seat or back upholstery sag?	□No	☐ Yes ☐ L	□R
Section 7. Footrest/Footplate/Legrest Check			
Lock the legrests/footrests. Check if the hardware is secure. Inspec		•	and
straps for sharp edges, splits, or fraying. Inspect the heel loops for			
Is the lock for the legrest secure?	□ No	☐ Yes ☐ L	□R
Are the fasteners loose?	□ No	Yes L	□R
Are the edges sharp?	□ No	Yes L	□R
Is any part of the leg panel cracked, split or frayed?	□ No	Yes L	□R
Is any hardware loose or missing? Signature:	□No	☐ Yes ☐ L	∏R

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Agency for Healthcare Research and Quality (2017).

Resources

The Virginia Department of Behavioral Health and Developmental Services (DBHDS) Website: http://www.dbhds.virginia.gov/

The Office of Integrated Health – Health Supports Network (OIH – HSN) website: https://dbhds.virginia.gov/office-of-integrated-health#

OIH - HSN Community Nursing Email Contact: communitynursing@dbhds.virginia.gov

OIH - HSN Mobile Rehab Engineering (MRE) Team Email Contact: mreteam@dbhds.virginia.gov

OIH - HSN Dental Team Email Contact: dentalteam@dbhds.virginia.gov

The <u>Risk Awareness Tool (RAT)</u> is another tool to identify risk related to conditions which may need follow-up with medical professionals. The results of the RAT identifies the need for further evaluation by a qualified healthcare professional. Click here for more information relating to the <u>RAT</u>.

The Mobility Resource (grants and funding for accessible vehicles)

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Rehabilitation Engineering and Adaptive Technology Society of North American (RESNA): https://www.resna.org/

<u>The ADA and Accessible Ground Transportation</u> – for an overview of the Americans with Disabilities Act (ADA) which applies to both public and private ground transportation providers.

Virginia's Division of Motor Vehicles Parking Placards and Plates for Virginians with Disabilities

- Apply for a disabled parking placard or license plate
- Renew or replace a disabled parking placard or license plate
- Disabled Parking Plates or Placard Application
- Institutional/Organizational Permanent Placard Application
- Disability Parking Application Information

References

- 1) ADA.gov. The United States Department of Justice, Civil Rights Division. (2022). Introduction to the ADA.
- 2) <u>ADA.gov. The United States Department of Justice, Civil Rights Division. (2010, July).</u> Access to medical care for individuals with mobility disabilities.
- 3) Agency for Healthcare Research and Quality (2017) Appendix B31: Engineer wheelchair inspection. Rockville, MD.
- 4) <u>Australian Standards (2021). AS/NZS 1754:2010 Child restraint systems for use in motor vehicles.</u>
- 5) Blue Cross Blue Shield (2019). Wheelchairs corporate medical policy.
- 6) <u>Butler, J. (2011). Degradation of polystyrene foam under radiant heat flux. Dissertation.</u>
 <u>University of Arkansas.</u>
- 7) <u>Canadian Standards Association (2020). CMVSS 213.Child restraint systems, Ottawa, Canada.</u>
- 8) <u>Economic Commission for Europe (2011). ECE R44 Uniform provisions concerning the approval of restraining devices for child occupants of power-driven vehicles.</u>
- 9) <u>Fourth International Interdisciplinary Conference on Posture and Wheeled Mobility</u> (2019). <u>International best practice guidelines: BPG1 transportation of people seated in wheelchairs.</u>
- 10) Koontz, A. M., Ding, D., Yih-Kuen Jan, Y., de Groot, S., & Hansen, A. (2014, September). Wheeled Mobility. *Hindawi Publishing Corporation, BioMed Research International*, Article ID 138176, 1-2.
- 11) National Highway Traffic Safety Administration, Department of Transportation (2020). Code of Federal Regulations, Title 49, Transportation, Part 571.213; Child restraint systems. Washington, DC 2003 National Archives and Records Service, Office of the Federal Register.
- 12) New Zealand Standards (2021). AS/NZS 1754:2010 Child restraint systems for use in motor vehicles.

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- 13) Posuniak, P., Jaśkiewicz, M., Kowalski, K., & Dąbrowski, F. (2018, April). Child restraint systems: problems related to the safety of children transported in booster seats (without integral safety belts). International Science-Technical Conference Automotive Safety, 1-7. IEEE.
- 14) <u>Rehabilitation Engineering and Assistive Technology Society of North America</u> (RESNA) (2012). Checklist of Criteria for Compliance of RESNA WC-4:2012, Section 19 (WC19).
- 15) Requejo, P. S., Furumasu, J., & Mulroy, S.J. (2016, January). Evidence-based strategies for preserving mobility for elderly and aging manual wheelchair users. *Top Geriatr Rehabil*, 31(1), 26–41. doi:10.1097/TGR.00000000000000042.
- 16) RS Components Ltd. (n.d.). A home safety checklist for wheelchair users.
- 17) Snell, M. A. (1999). Guidelines for safely transporting wheelchair users. *OT Practice* 4(5) 35-38.
- 18) Singh, H., Carol Y Scovil, C. Y., Yoshida, K., Oosman, S., Kaiser, A., Craven, C., Jaglal, S., & Musselman, K. E. (2020, February). Factors that influence the risk of falling after spinal cord injury: a qualitative photo-elicitation study with individuals that use a wheelchair as their primary means of mobility. *BMJ Open*, doi:10.1136/bmjopen-2019-034279.
- 19) <u>The Center for Disease Control and Prevention (CDC). (2020, September). Common barriers to participation experienced by people with disabilities.</u>
- 20) The Center for Disease Control and Prevention (CDC). (2016, September). Disability impacts all of us.
- 21) <u>The World Health Organization (WHO). (2012). Wheelchair service training: Trainer's</u> manual basic level package.
- 22) The World Health Organization (WHO). (2011, January). World report on disability.
- 23) Twardowski, B. & Twardowski, J. (2013, July). Basics of seating & safety. *Fall Special Living Magazine*, 32-37.
- 24) Walls, G. and Walls, M. (2015). Safe practices for clients who need wheelchairs: Considerations for clients, caregivers, and health care facilities. *The Journal of Legal Nurse Consulting*, 26(4), 27-31.

To the best of the OIHSN Nursing Team's knowledge the information contained within this alert is current and accurate. If the reader discovers any broken or inactive hyperlinks, typographical errors, or out-of-date content please send email to communitynursing@dbhds.virginia.gov to include the title of the Health & Safety alert with specifics details of concern.

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Appendix A – Email the MRE team for a fillable form to request durable medical equipment services.



Request for Durable Medical Equipment Services

<u>Form Instructions:</u> For Repair, Safety Assessment, Pressure Washing or Custom Adaptation requests, please complete Page 1 & 2 of this form and return. For Training, Educational or Community Events, please complete Page 3 of this form and return. For PT, OT, Technical Assistance or Accessibility requests, please complete Page 4 of this form and return.

This form must be filled out completely. Incomplete forms will be returned to the Requestor.

Return this form to MRETeam@dbhds.virginia.gov.

Forms will ONLY be accepted by email unless prior arrangements have been made with MRE Management.

Date of Birth:				
Preferred Name:				
☐ This individual has an intellectual or developmental disability as defined by the VA Code				
Does the individual have Medicaid? □Yes □No				
Does the individual have a waiver? □Yes □No				
What were the barriers that hindered the DME Company from assisting you?				
CLIENT INFORMATION				
Indicate individual's type of residence: ☐ Family Home ☐ Group Home ☐ ICF				
Name of Group Home/ICF (if applicable):				
Apt/Suite:				
Zip Code:				
ION				
ION				
Zip Code:				

1 Form 101

Original Date: 04/2022 Last Updated: 09/2025 RL 9.4

DEPARTMENT OF BEHAVIORAL HEALTH AND DEVELOPMENTAL SERVICES

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REQUESTOR INFORMATION

Community Service Board:				
Requestor Name:		Relationship:		
Phone Number:	Email:			
ADDRESS OF SERVICE:				
Street Address:				
City/Town:	Zip Code:			
Contact Name:	Phone:			
Service Type (Please select all that apply) Individual Repair Safety Assessment Pressure Washing Custom Adaptation For Pressure Washing Requests Only: Do you have an outdoor spigot to accommodate? Yes No List Equipment in need of service below.				
Equipment Type:				
Make/Brand Name:	Model:			
Description of Problem/Consult Needs:				
Equipment Type:				
Make/Brand Name:	Model:			
Description of Problem/Consult Needs:				
For Multiple Individuals, please fill out the following information (Please select all that apply)				
☐ Pressure Washing Clinic ☐ Safety Assessment/Repair Clinic For Pressure Washing Requests Only: Do you have an outdoor spigot to accommodate? ☐ Yes ☐ No				
Approximate Number of Pieces of Equipment: (Example: 25-30)				

2 Form 101

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Post Office Box 1797 Richmond, Virginia 23218-1797 Telephone (804) 786-3921 Fax (804) 371-6638 www.dbhds.virginia.gov



Training/Educational Event/ Community Event

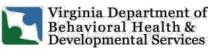
ORGANIZATION INFORMATION

Name of Organization, Business or CSB:			
Street Address:	Apt/Suite:		
City/Town:	Zip Code:		
Contact Person:	Phone:		
Email Address:			
Event Type (Please select all that apply)			
☐ MRE/DME/AT Training ☐ Emergency Preparedness for Caregivers ☐ Community Event			
Do you have an area or room to conduct the Training? ☐ Yes ☐ No			
Does room have an audiovisual screen for PowerPoint Trainings? \square Yes \square No			
Does the room have tables and chairs? \square Yes \square No			
How many people does the room accommodate? (Approximate)			
Approximate number of Attendees:			
Please list any information that may be helpful to know about the site: (Ex. Don't park on the left-side of the building)			
Who will be invited to your Community Event Training? (Ex. General Public, Nurses, Program Managers, DSPs)			
Any additional information that might be helpful: (Ex. We prefer to schedule training for a Wednesday morning)			

3 Form 101

DEPARTMENT OF BEHAVIORAL HEALTH AND DEVELOPMENTAL SERVICES

Post Office Box 1797 Richmond, Virginia 23218-1797 Telephone (804) 786-3921 Fax (804) 371-6638 www.dbhds.virginia.gov



Physical Therapist/Occupational Therapist/Technical Assistance/Accessibility

CLIENT				
	CLIENT INFORMATION			
Indicate individual's type of residence: ☐ Family Home ☐ Group Home ☐ ICF ☐ Apartment				
Name of Individual:				
Street Address:	Apt/Suite:			
City/Town:	Zip Code:			
REQUEST TYPE				
Request Type (Please select all that apply) □ PT Consult □ OT Consult □ Technical Assistance Consult □ Mini-Accessibility Assessment				
MEDIC	CAL HISTORY			
Diagnosis:				
Any recent changes in Health Status? (stroke, hospit	talizations, surgeries, etc.) Yes No			
If so, what kind?				
Is the individual Ambulatory or Non-Ambulatory?	☐ Ambulatory ☐ Non-Ambulatory			
Ambulatory Foot Orthotics? ☐ Yes ☐ No	Hand Splits? □ Yes □ No			
Wheelchair Type: □ Manual □ Power	Wheelchair Brand:			
Does the wheelchair Tilt? ☐ Yes ☐ No	Wheelchair Ramp? ☐ Yes ☐ No			
Stairs? □ Yes □ No	Stair or Chair lift? ☐ Yes ☐ No			
Patient Lift? ☐ Yes ☐ No If yes, is the lift ☐ Electric ☐ Manual				
Does the individual ride in an Accessible vehicle wh	hile seated in a wheelchair? Yes No			
SEATING ASSESSMENT				
Date of Last Seating Assessment				
Date of Last Seating Assessment:				
Date of Last Seating Assessment: Where was this assessment conducted?				
Date of Last Seating Assessment: Where was this assessment conducted? What DME Vendor conducted this assessment?				

4 Form 101

Wheelcha	ir Safety and Maintenance Quiz/Ev	aluation Answer Key	
Name:		Date:	
Email Addre	ess:		
Quiz:			
	is the most commonly used piece of durable	medical equipment?	
a.	Shower chair	c. Hospital Bed	
b.	. Stander	d. Wheelchair	
	elchairs serve many important roles and func e, including:	tions for the individual within the community and at	
a.	a. Transportation to medical appointments.		
b.	Evacuation from an unsafe environment.		
C.	Transportation to community events.		
d.	. As a positioning device for Activities of Dai	ly Living (ADLs).	
e.	. All of the above.		
3. What i	is one of the main roadblocks for wheelchair	users?	
a.	Independence	c. Acceptance	
b.	Accessibility	d. Integration	
4. What i	is a suitable doorway width for a wheelchair t	o fit through?	
a.	At least 25"	c. At least 32"	
b.	At least 18"	d. At least 40"	
5. How n	nuch additional clearance can be added to a	doorway by using offset or "Z" hinges?	
a.	. Not enough to make a difference c. 5 to 10 inches		
	. 1 to 2 inches	d. All of the above	
6. What _l scena	part of a wheelchair can reduce the potential rios?	for neck injury in both frontal and rear crash	
a.	A seating system with good footrests.		
b.	A custom wheelchair with specialized cush	nions.	
C.	A seating system with head support attach	ed to a seatback.	
d.	d. A folding wheelchair not rated for vehicle transport.		
7. What _l	part of a wheelchair lowers the risk of backwa	ard tip-overs?	
a.	The head rest.	c. The footrests.	
b.	The anti-tippers.	d. The back wheels.	
8. A whe	elchair "transport safe" label means the whee	elchair has:	
a.	Been designed for use as a seat in a moto	r vehicle.	
b.	 b. Has passed standardized tests proving the ability to withstand the forces of a 30-mph/20-g change in velocity. 		
C.	Complies with strict WC-19 safety standards established by RESNA.		
	All of the above.		
9. What a	are the benefits of regular cleaning, inspectio	ons and maintenance of a wheelchair?	
	a. Extends the life. c. Ensures comfort.		
	Reduces risk of injury to the user.	d. A & B.	
	services does OIHSN Mobile Rehab Engineerir		
	Wheelchair maintenance	c. Safety checks	
b.	Pressure washing during the warm months	d. All of the above	

Wheelchair Safety and Maintenance Quiz/Evaluation Answer Key Name: _____ Date: _____ Email Address: 11. What agency sets best practice standards for wheelchair transportation within a moving vehicle in the United States? a. The Department of Public Safety Communications (DPSC). b. The Virginia Department of Motor Vehicles (DMV). c. The Rehabilitation Engineering and Assistive Technology Society of North America (RESNA). d. None of the above 12. Why is it important to make sure all end caps are securely in place on the wheelchair frame? a. Because the wheelchair will fall apart if they are not in place. b. Because the individual's favorite stuffed animal can fall down inside never to be seen again. c. Because large animals can crawl-up inside and live there. d. Because insects, spiders and roaches hide inside the hollow wheelchair frame tubing when the end caps are missing. 13. Why is it important not to leave, and/or store, wheelchairs with molded polystyrene foam seating systems inside parked vehicles when not in use? a. Excessive heat can cause polystyrene cushion foam to shrink, making it very hard and rigid. b. It's not important and wheelchairs can be stored in vehicles if there's no other place to keep them. c. Excessive cold can crack the frame of the wheelchair making to unusable. d. None of the above. 14. Why should a wheelchair seat cushion be completely dry before allowing it to be used? a. Sitting on a damp or wet cushion will cause the individual to break out into a fit of laughter. b. Sitting on a damp or wet cushion can make the individual's skin wet, which can easily cause skin damage. c. Sitting on a damp or wet cushion is not a problem so an individual can be put right back on a cushion when it's wet. d. All of the above. 15. The Americans with Disabilities Act (ADA) forbids discrimination against individuals with disabilities involving... a. Employment c. Any public spaces e. Entry to government services b. Transportation d. Communications f. All of the above Evaluation: a. Yes 1. Was the information presented in this Health & Safety Alert helpful? b. No 2. Will you use this Health & Safety Alert information to train other staff? a. Yes b. No 3. Will you attend the Regional Nursing Meeting to obtain the Continuing Nursing Education (CNE) unit for this Health & Safety Alert? a. Yes c. Yes, but I would have attended the meeting regardless b. No d. No, I am not a nurse 4. What topic(s) would you like to have presented in a Health & Safety Alert for CNE's? 5. Other Comments: