



COMMONWEALTH of VIRGINIA

DEPARTMENT OF BEHAVIORAL HEALTH AND DEVELOPMENTAL SERVICES

Post Office Box 1797
Richmond, Virginia 23218-1797

Nelson Smith
Commissioner

Telephone (804) 786-3921
Fax (804) 371-6638
www.dbhds.virginia.gov

Office of Integrated Health Health & Safety Alert/Information

Wheelchair Assessment Considerations for an Individual with IDD Health & Safety Alert

Introduction

For a non-ambulatory individual with intellectual and developmental disabilities (IDD) a new wheelchair is very important for maintaining comfort, support, and independence, especially as mobility needs and physical conditions change over time. A well-fitted wheelchair can improve posture, reduce risk for pressure injuries, and allow for greater movement and participation in daily activities.

A customized wheelchair supports person-centered care for individuals with IDD because they can be tailored to an individual's unique needs, goals, and preferences, along with helping maximize their self-sufficiency and improve over-all functioning.

Obtaining the right wheelchair for the right person can be a lengthy process which requires a team effort. The team may consist of the individual's family members, licensed provider support staff, support coordinator, primary care provider (PCP), a physical therapist (PT), or occupational therapist (OT), an Assistive Technology Professional (ATP), and the Durable Medical Equipment (DME) representative.

The Office of Integrated Health Supports Network (OIHSN) has developed a companion alert to pair with this one titled "*How to Obtain a New Customized Wheelchair*" which walks through the step-by-step process involved in getting the prescription, contacting the durable medical equipment (DME) vendor, the initial assessment, the ordering of the customized wheelchair to finally receiving delivery and fitting.



Wheeled Mobility Devices: Customized Wheelchairs Versus Non-Customized Wheelchairs

Wheeled mobility devices fall into two categories:

1. *Complex rehabilitation technology (CRT) customized wheelchairs.*

Customized wheelchairs are categorized as CRT and are considered “medically necessary” which go beyond the basic standards of a wheelchair a person can buy online or in a department store. CRT wheelchairs are customized, individually configured wheelchairs designed to address the unique needs of a specific individual who has significant disabilities and medical conditions. CRT wheelchairs are aimed at maximizing an individual’s independence and participation in all areas of their life.

2. *Durable medical equipment (DME) non-customized wheelchairs.*

Non-customized wheelchairs are referred to as DME and are basically generic, off-the-shelf wheelchairs that *should only be used for short periods of time* and can be randomly used by *anyone*. They can be purchased at a department store or online.

Medical offices, hospitals, airports, shopping malls, etc. typically have a few non-customized wheelchairs parked in their lobby or a designated area, just in case someone is feeling ill and/or is having difficulty walking on their own for a short period of time.

[CMS \(Centers for Medicare & Medicaid Services\)](#) defines DME as:

- Durable (can withstand repeated use).
- Used for a medical reason.
- Typically only useful to someone who is sick or injured.
- Used in the home.
- Expected to last at least 3 years.

Caregiver Tip: When seeking funding or approval for anything be sure to tell the “story” well. Make sure you include the what, when, why, and how in the story. Most requests for services and funding are denied due to incomplete information or a “story” that is confusing.

Periodic Seating Assessments

Below are some of the changing needs wheelchair users have which should be addressed through periodic seating assessments.

- *Mobility Changes:* No one physical stays exactly the same year after year and individuals with IDD are no different. As people age or experience changes in their physical condition, their mobility needs may evolve, requiring a wheelchair that better suits their current abilities and limitations.
- *Weight Fluctuations:* Weight gain or loss can impact the fit and comfort of a wheelchair, potentially leading to pressure sores, discomfort and skin breakdown, if there is slippage, rubbing, or cushion compression or breakdown.
- *New or Worsening Conditions:* New injuries, chronic conditions, or worsening of existing conditions can necessitate a wheelchair with specific features or adjustments to accommodate the user's needs.
- *Pressure Relief:* A properly fitted wheelchair can help prevent pressure sores and skin breakdown by distributing weight and pressure more evenly.
- *Posture and Alignment:* A wheelchair that supports proper posture and alignment can reduce pain and improve overall comfort and well-being.
- *Comfortable Seating:* The seat, backrest, and other components of a wheelchair should be comfortable and supportive, allowing the user to sit for extended periods without discomfort, slumping, sliding or leaning.
- *Enhanced Independence, Functionality and Mobility:* A well-designed wheelchair should enhance mobility, allowing users to navigate various environments and participate in daily activities with greater ease and independence.
- *Improved Access in the Individual's Community:* A wheelchair should help users access different locations, participate in social activities, and maintain their independence.
- *Safety:* A wheelchair should have safety features like seat belts, anti-tip wheels, and brakes, which are essential for safe and secure mobility.
- *Maintenance and Repairs:* Regular maintenance and repairs can extend the lifespan of a wheelchair, but eventually, a replacement may be necessary.

- *Lifespan of Wheelchairs:* Wheelchairs, especially those used frequently, can experience wear and tear over time, leading to damage or malfunction.
- *Outdated Technology:* Older wheelchairs may not have the latest features or technologies that can improve comfort, mobility, or safety and should be replaced.

Standard, Folding, Non-Customized DME-Type Wheelchairs

If an individual you support is using a fold-up type wheelchair, also known as a transport wheelchair, every day, all day long, they should be evaluated for a customized wheelchair.

Best practice research discourages the use of standardized folding wheelchairs on an ongoing daily basis for individuals with complex care needs (3; 9).

Folding, standard, non-customized DME-type wheelchairs:

- Are uncomfortable.
- Are not made from durable materials.
- Are not designed for day-to-day, ongoing use.
- Do not have a headrest. Due to this, they offer no support for the head or neck and are not meant for individuals with poor muscle tone, and poor trunk, upper body, or head control.
- Are not appropriate as a primary positioning device on an everyday or ongoing basis due to lack of support and lack of any tilting feature.
- Are not appropriate for any individual who has any history of skin breakdown or pressure injuries in the coccyx or sacral areas.
- Have no seat bottom or backrest cushioning and due to this, put all individuals at higher risk for skin breakdown and pressure injuries in any area of the body. (*Cushions can be purchased separately and will make a transport-type wheelchair less uncomfortable, but still inappropriate for anyone with a history of skin breakdown or pressure injuries.*)

Caregiver Tip: If you have an individual you're supporting who has a standard, folding wheelchair and the individual is sitting in the wheelchair for more than 3 hours every day, and the use of the wheelchair is not temporary or due to a recent illness or hospitalization, **the individual should be evaluated for a customized wheelchair as soon as possible.**

- **Are not approved for 4-point tie-down vehicular transportation in an accessible vehicle.**



Uses and Benefits of Standard, Folding, Non-Customized Wheelchairs

Standard, folding, non-customized wheelchairs are not all bad and do have some benefits that customized wheelchairs do not offer, and some individuals and caregivers prefer them for that reason. Sometimes there is a specific use for the transport wheelchair that requires the use of both a customized wheelchair and a transport type wheelchair. Some individuals use a customized wheelchair most of the time but use a transport type wheelchair on an occasional basis. Depending on the individual, this type of use may be acceptable with the right cushion. Please check with the individual's PT if unsure.

Example: A special outing with a friend or relative who doesn't have an accessible vehicle.

- Standard, folding wheelchairs are very lightweight and can be easily folded and transported in the trunk of a car.
- May be appropriate for individuals who do not require the use of a wheelchair for extended time periods every day if the individual does not have a history of pressure injuries.
- May be appropriate for individuals who can walk short distances, but tire easily.
- May be appropriate for temporary or occasional use.
- It can be purchased online and at local pharmacies, Costco, Walmart, etc.
- Work well for occasional outings with someone who does not have an accessible vehicle, if the individual has the trunk control, etc. to ride safely in a passenger seat of a vehicle.

A WC19 Compliant Label On The Frame

- The manufacturer has designed the wheelchair for use as a seat in a vehicle.
- The wheelchair has features which make it easier to secure with 4-point strap tie-downs.
- The wheelchair is designed so the person securing straps can do so easily, and with only one hand.
- The wheelchair has also passed a standardized crash or sled test and has survived with little or no structural damage.
- The wheelchair has passed standardized tests have proven their ability to withstand the forces of a 30-mph/20-g change in velocity--the same crash pulse that all automotive equipment must survive.
- Part of the requirement of the WC19 standard is labeling the wheelchair and the 4 securement points so that it can be clearly recognized as read for use as a seat in transportation vehicles.
- The manufacturer can provide more information about how the wheelchair performed in testing.

Caregiver Tip: Wheelchairs labeled "WC19 Compliant" are crash-tested and designed for securement in vehicles, while generic off-the-shelf type wheelchairs may not have the necessary features or structural integrity and are not crash-worthy and therefore should not be tied-down and in an accessible vehicle.



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For a list of WC19 compliant wheelchairs go to <https://docs.google.com/spreadsheets/d/1qf6MIm5FB-QL0peFGLf-dNcFksZdbqF-buuY5M-sQ4M/edit?pli=1&gid=2#gid=2> and look for the Wc19 sticker of the frame of the wheelchair

Caregiver Tip: If you have questions relating to whether or not an individual can ride in a vehicle safely in a regular passenger seat without their specific wheelchair, please seek the advice and expertise of the individual's PT, OT or PCP for guidance.

Is a generic, off-the-shelf, non-customized DME-level wheelchair appropriate for an individual with IDD who is non-ambulatory for an indefinite period of time (on an ongoing all day, everyday basis with no end)? **No, they are not.**

Generic, non-customized wheelchairs should only be used for individuals with IDD who:

- Have short-term mobility needs lasting no more than a few weeks or months.

Example: an individual recovering from surgery or a recent injury such as a broken foot or leg.

- Use a wheelchair for a short period of time (less than 3 hours) on random days (not every day).

Example: an individual who temporarily uses a wheelchair while they are recovering from a recent illness or hospitalization.

- Can walk but sometimes needs a wheelchair to be transported if participating in an activity which requires a lot of walking on any given outing or day.

Example: an individual who typically walks everywhere but uses a wheelchair on planned outings to amusement parks, such as Busch Gardens or Kings Dominion.

- Has normal muscle tone (no genetic muscular, neuromuscular or degenerative conditions or weakness), good sitting balance (does not easily fall over) and can sit independently (does not need to lean against or hold onto something to steady self).

Example: an individual who sits well, has great posture, can shift their weight, has normal muscle tone, and sitting balance which enables them to sit independently on a surface, (with no back or side support), for extended periods of time.



- Can comfortably and easily fit in a one-size-fits-all, standardized, off-the-shelf, non-bariatric wheelchair.

Example: an adult male individual who weighs 175 lbs. and is 5'10" tall (average height and weight), with good muscle tone and can sit independently, who is using the wheelchair for a short period of time due to a sprained ankle.

If an individual uses and needs a wheelchair for more than 3 hours, every day, the individual should be assessed for a customized wheelchair as soon as possible.

Where to Schedule a New Wheelchair Seating Assessment

Wheelchair clinics and community-based physical therapists both play crucial roles in addressing mobility needs, but they differ in their focus and scope of services. Wheelchair clinics are specialized facilities that provide comprehensive assessments, fittings, and customized seating solutions for individuals who use wheelchairs.

Community-based physical therapists, on the other hand, offer a broader range of rehabilitation services, including those related to wheelchair use, but often within a more general clinical setting. Due to this, some physical therapists may have extensive experience with wheelchair seating and customization, while others may not. Be sure to ask if unsure.

Wheelchair Seating Clinics' Areas of Expertise

- Wheelchair clinics are staffed by professionals with expertise in wheelchair seating and mobility, including physical therapists, occupational therapists, and seating specialists.
- They conduct thorough evaluations to determine the best seating and positioning needs, considering medical history, strength, range of motion, and environmental factors.
- Wheelchair clinics offer various options, from standard wheelchairs to highly customizable models with specialized seating systems.
- They work with patients to trial different wheelchairs and seating components to find the most suitable and cost-effective solution.
- Wheelchair clinics provide education and training on wheelchair operation, maintenance, and pressure sore prevention.

- They often collaborate with wheelchair equipment suppliers to ensure that prescriptions are written using the most appropriate technology.

Community-Based Physical Therapists' Areas of Expertise

- Community-based physical therapists offer a wider range of services, including those related to wheelchair use, but also addressing a variety of musculoskeletal, neuromuscular, and other health issues.
- They may practice in hospitals, clinics, private practices, or outpatient settings, offering a more general rehabilitation experience.
- While addressing wheelchair use, community-based physical therapists also focus on improving overall strength, flexibility, coordination, and mobility skills.
- They develop personalized treatment plans based on individual needs and goals, often incorporating exercises, manual therapy, and assistive devices.
- They may work with patients to improve their ability to perform daily living activities, participate in vocational training, and achieve optimal function.
- They often collaborate with other healthcare professionals, such as physicians, occupational therapists, and social workers, to provide comprehensive care.
- They may or may not have experience working with individuals with intellectual or developmental disabilities, so be sure to ask them if they do or not.

Consider a wheelchair seating clinic if you need a comprehensive evaluation, customized seating solutions, or specialized expertise in wheelchairs and wheelchair customizations.

Consider a community-based physical therapist if you need broader rehabilitation services, including those related to wheelchair use, but also addressing a variety of musculoskeletal, neuromuscular, and other health issues.

How to Prepare for a New Wheelchair Assessment

The physical therapist (whether based at a wheelchair clinic or within the community) will need information about the individual's medical history, functional abilities, strength, range of motion, and environmental needs (work, school, day program, group home, family home, community activities, etc.) to determine the most suitable wheelchair and seating system customizations.

Support persons should share any information relating to the individual's functional abilities, their medical diagnoses, and any chronic conditions along with sharing information relating to issues with the individual's posture, areas of the body with

swelling/edema, history of pressure injuries or skin breakdown, any potential for change in their functional abilities, health status or their size/weight (e.g., the individual is still growing, taking weight loss medications, etc.)

Here's a more detailed breakdown:

Medical History:

- Height and weight.
- The individual's current and past mobility status.
- What is the individual's health status and does the individual have any anticipated or potential for health status changes due to disease or aging (e.g. the individual was just diagnosed with cancer, dysphagia, congestive heart failure, etc.) If the individual has a progressive condition, the PT needs to consider whether a self-propelling manual chair is appropriate in the long-term.
- What medical conditions does the individual have, including cardiopulmonary status, heart disease, cardiac issues, or any other chronic conditions, etc.?
- Does the individual have a continuous feeding pump, a urinary catheter, or use an oxygen tank, a ventilator, or an assistive communication device, etc.?
- Does the individual have a history of falls, pressure injuries, swelling/edema, or any other relevant medical issues?
- What is the individual's muscle tone or strength, range of motion, orthopedic issues, etc.?
- Does the individual tire easily?
- What ability does the individual have to perform activities of daily living (ADLs) (transfers, toileting, hygiene, bathing, dressing, etc.).
- What is the potential for functional or cognitive changes relating to ADLs (e.g., the individual has recently been diagnosed with dementia, etc.)?
- Can the individual shift their weight, stand alone, help with transfers, etc.?
- What is the individual's cognitive ability or safety awareness? For individuals with cognitive or perceptual deficits, the PT needs to assess their ability to operate a wheelchair safely.

Environmental and Lifestyle:

Be prepared to share a description of the individual's home environment and accessibility to the home and any known limitations within their environment (e.g., can't currently access the bathroom sink, etc.).

- Share the individual's usual abilities, lifestyle, daily activities and how they might impact their wheelchair needs.
- *Transportation Needs* - Will the individual be using public transportation on a daily basis and if so, what type of transportation (e.g., bus, subway, etc.)??
- Provide details about how the wheelchair will be transported, including whether it will be used in an accessible vehicle. **Be sure to ask for tie-downs to be included in the order for a new wheelchair. If they are not included in the initial order for a new wheelchair, Medicaid and private insurance will not cover the cost.**
- Highlight any specific requirements, such as the need for a wheelchair that can accommodate a specialized seating cushion, backrest, etc.
- Measure the width of entryways, doorways, and passageways in the individual's home, work, and other frequently visited locations in case you are asked.
- Note the types of flooring if known (e.g., smooth linoleum, shag carpet, marble, tile) and their condition (e.g., loose or uneven tiles).
- If applicable, provide information about the presence and characteristics of staircases and elevators, including their width and height.
- Describe the types of terrain the individual will encounter on a regular basis such as curbs, steep inclines, and uneven surfaces, such as a gravel driveway to their home or day program.
- Measure the heights of dining tables, kitchen and bathroom countertops, desks, bathroom and kitchen sinks, etc. to ensure the wheelchair is suitable and enables the individual to have access.

What to Expect at a New Wheelchair Seating Assessment

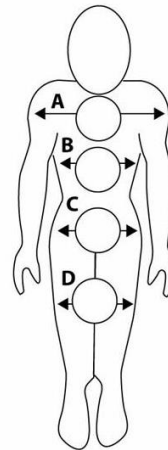
The Physical Assessment:

As mentioned in the previous section, be prepared to provide information about the individual's diagnoses and their physical or functional condition, including the individual's ability to transfer and their tolerance for different seating positions.

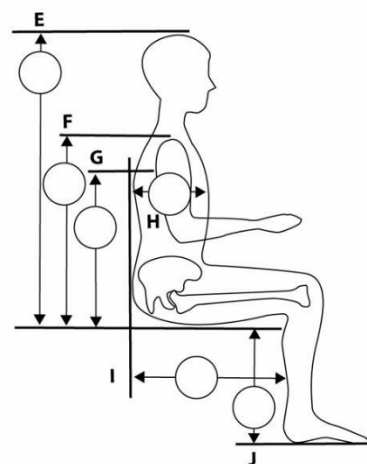
Please see the sample Wheelchair Seating and Assessment Guides in the Resource section of this document for a detailed overview of the information and questions asked in an actual seating assessment.

The following measurements should be obtained from the individual as part of the new wheelchair evaluation:

- A. Shoulder width
- B. Chest width
- C. Hip width
- D. Width at knee



- E. Seat to the top of head
- F. Seat to top of shoulder
- G. Seat to armpit (L&R)
- H. Chest depth (L&R)
- I. Seat depth + 2-3 finger widths
- J. Seat to footplate (L&R)



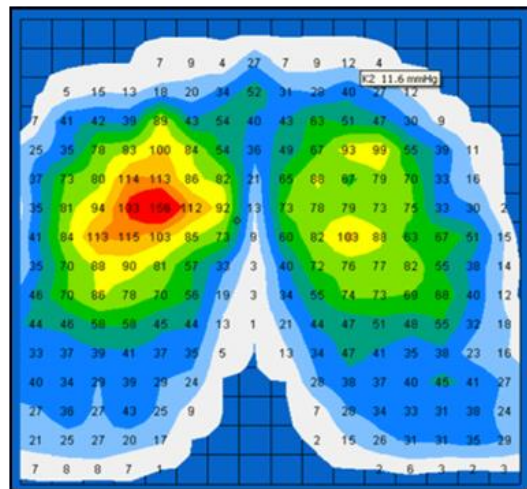
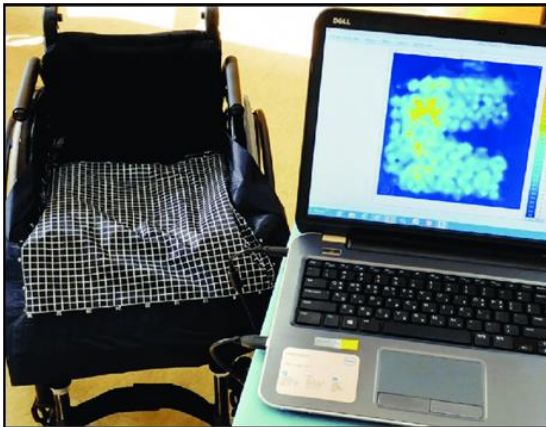
The depth of the wheelchair seat cushion should allow for at least 1.5 to 2 inches of space (2-3 finger widths) between the end of the seat and the back of the knee. The footrests should be positioned so the individual's feet are level or *slightly* elevated.

Pressure Mapping as Part of the New Wheelchair Assessment

Pressure Mapping is often a part of a new wheelchair or seating assessment when the individual has a history of pressure injury, skin breakdown or other wounds, and/or if the individual *is at high risk* of a pressure injury, skin breakdown or another type of wound. Pressure mapping provides an objective view of how gravity and the pressure from the surface (wheelchair, bed, etc.) impact the body of the individual when seated.

Pressure mapping also gives the PT an opportunity to try out various cushioning and positioning choices in an attempt to lessen and/or help distribute the pressure more evenly, in order to lower pressure injury risk.

Using pressure mapping can allow the PT to choose from a range of surfaces (cushions, mattresses, etc.) which will distribute the load more evenly and can assist with improved upright (vertical) or sleeping (horizontal) positions (4).



To learn more about pressure mapping, check out these videos:

<https://www.youtube.com/watch?v=bVyPZJu4Go4>

<https://www.youtube.com/watch?v=JCLkBBho2Uw>

Wheelchair Types

Manual Wheelchairs

A basic manual wheelchair frame has a 24" seat width and typically weighs between 40 lbs. - 65 lbs. There are two basic categories of manual wheelchairs:

Self-propelled manual wheelchairs

- Allow the wheelchair user to move the wheelchair independently using their own upper body strength.
- Are designed for users who have sufficient upper body strength to manually propel the chair using push rims on the back wheels.
- Typical features include larger rear wheels, push rims, and often include pushing handles for assistance from others when/if needed.
- Offer more independence and control than a dependent type of manual wheelchair.
- Versions include:
 - *Hemi*: a wheelchair designed with a lower seat height, often less than 17.5 inches, compared to the standard 19.5 inches. This lower height allows users to more easily propel the chair using their feet, and it's also beneficial for individuals who are short or have difficulty with transfers. Hemi-wheelchairs are often equipped with dual axles for height adjustments, allowing them to be used at either standard or hemi-height.
 - *Lightweight*: typically 25-34 pounds.
 - *Ultra-lightweight*: typically 14-15 pounds or even lighter. For high functioning and/or those who are independent but fatigued easily with heavier chairs or have a diagnosis that increases their fatigue potential.
 - *One-arm drive*: allows a user to roll straight while only turning the wheel with one hand. Both drive rims are located on the individual's functioning side. One for the opposite wheel and one for the wheel on that side of chair. The user holds both to propel forward.
 - *Sports-specific*: rear wheels are angled (cambered) to allow for better stability, and the front wheels are usually smaller than those on a standard wheelchair.

-
- *Bariatric*: have reinforced frames and wider and deeper seats to support individuals with heavier body weights (BMI 30+) or 300—600 lbs. (Are also available as a power-mobility device.
 - *Pediatric*: are specifically designed for children with disabilities and can more easily be adjusted for growth than most adult versions. (Are also available as a power-mobility device.
 - *Standing*: can transition a user from sitting to standing. (Are also available as a power-mobility device.

Dependent Manual Wheelchairs (also known as attendant-propelled)

- Used for individuals who need assistance from another person to move.
- Are designed to be easily pushed by a caregiver or an attendant and have smaller back wheels than self-propelled versions.
- Are suitable for users who have limited mobility, poor upper body strength, or complex medical needs.

Power-Mobility Devices (PMDs) (Electric Wheelchairs)

Electric-powered wheelchairs are referred to as "power-mobility devices" (PMDs). Because of the complexity and cost involved, PMDs do require Medicaid pre-authorization to validate the medical necessity for the wheelchair and make sure it meets the DMAS criteria for reimbursement.

PMD pre-authorization requests are made by the enrolled DME vendor/supplier and submitted to the Virginia DMAS pre-authorization contractor, [Accentra/Kepro](#). Virginia Medicaid will not pay if pre-authorization is required but not obtained. (There are links to the pre-authorization website in the resources section of this document.)

PMDs can be operated and maneuvered using a traditional joystick or a variety of other high-tech driving/operational methods including:

- Chin control
- Sip-and-puff
- Speech control
- Tongue control

Bariatric Wheelchairs

Individuals with a Body Mass Index (BMI) that is greater than 30 should be considered for a bariatric wheelchair.

A higher BMI can affect the center of gravity causing a regular sized wheelchair to be unstable. Bariatric wheelchairs (both electric and manual models) are designed to handle increased weight without compromising on performance, safety or durability.

A bariatric wheelchair has a reinforced frame and a wider and deeper seat to help support individuals with heavier body weights (BMI 30+) and lower risk of tipping.

Wheelchairs for Exceptionally Tall Individuals

Individuals who are over 6 feet tall may also have issues using standard, off-the-shelf wheelchairs and will likely need a customized wheelchair. These options often feature increased seat depth, height, and backrest height to provide better support and comfort. Tilt-in-space wheelchairs are also beneficial, allowing for adjustments to seating position and improved comfort.

Tall wheelchair users may also encounter the following issues when they use a standard-sized wheelchair model, which can cause permanent bodily harm to the individual:

- Short or improperly fitting leg rests *can lead to pressure injuries on the heels or awkward leg positions.*
- A low backrest *can place strain on the scapula.*
- Inadequate head support *can cause misalignment.*
- Standard wheelchairs cannot accommodate longer knee-to-heel lengths, *leading to unnecessary pressure, discomfort and possible skin breakdown.*
- A seat to floor height that is too low *can cause issues with positioning and comfort.*
- Taller patients may experience *awkward postures, improper support and difficulty when transferring from their wheelchair to another surface.*

Customization Options to Consider During a Wheelchair Assessment

- **Customized Supports**

- Lateral supports
- Hip supports
- Cervical supports
- Arm supports



- **Customized Cushions**

- Gel
- Angled
- Curved
- Custom molded

- **Other Customizations:**

- Headrest options
- Leg rest options
- Armrest options
- Backrest options
- Seating options
- Seatbelt and harness options
- Color of frame options

- **Reclining Options/Customizations**



Please be aware that some wheelchair options require a **medical justification**. For example, a manual fully reclining back option (E1226) is covered if the individual has one or more of the following conditions:

- Is at high risk for a pressure injury.
- Is unable to perform a functional weight shift.
- Uses intermittent catheterization for bladder management.
- Is unable to independently transfer from the wheelchair to the bed.

A reclining back option (also referred to as a tilt-in-space wheelchair) may also be indicated if the individual has a diagnosis which causes lower leg/foot edema, such as congestive heart failure. If the back of the wheelchair has a reclining feature, it will allow

the feet and legs to be elevated (as shown in the pic above) which will help lessen edema in them.

- Customized Accessory Options
 - Cup holders
 - Sun Visors
 - iPad holders
 - Cell phone holders
 - Communication device holders
 - Wheelchair trays
 - Specialty tires
 - Specialty harnesses and seatbelts
 - Specialty backpacks to house feeding pumps.



Support Team Members Required for a Wheelchair - Seating Assessment

If any of the professional working with the individual during the assessment is certified as an Assistive Technology Provider (ATP) too, this is an excellent credential and means they have completed additional training on assistive technology and passed a certifying examination from [RESNA](http://RESNA.org).

DME Vendor/Salesperson/Supplier

DME vendors are in the business of providing medical equipment and supplies designed for repeated use, typically in an individual's home to assist with medical conditions or disabilities. This includes both non-customized equipment and customized equipment, also known as complex rehabilitation technology. The wheelchair/DME vendor must be licensed or certified by the Virginia Department of Medical Assistance Services (DMAS) and have a signed participation agreement and a provider identification number.

Physical Therapist (PT)

A PT treats the effects of an illness injury or chronic disability using therapeutic exercise, manual therapy and other techniques to help restore movement in the body. It is a PT's job to help determine exactly what type of wheelchair is right for the individual's home environment, medical diagnosis, positioning needs, lifestyle and daily activities.

PTs who are practicing in Virginia should be licensed in Virginia. To check licensure for a healthcare professional in Virginia, please go to: The [Virginia Department of Health Professions](http://www.vdhhs.virginia.gov/professions) license lookup webpage.

Occupational Therapist (OT)

An OT typically focuses on improving a person's ability to perform activities of daily living (ADLs) (bathing, dressing, eating, etc.). It is an OT's job to help determine exactly what type of wheelchair is right for the individual's home environment, lifestyle and daily activities. OTs practicing in Virginia should be licensed in Virginia. To check licensure for a healthcare professional in Virginia, please go to: The [Virginia Department of Health Professions](http://www.vdhhs.virginia.gov/professions) license lookup webpage.

Caregiver Tip: It is also an OT's, or PT's, job to write the letter of medical necessity (LMN) helps the insurance company understand the relationship between the individual's mobility needs, their medical diagnosis/positioning needs and the equipment that is recommended for them. (See the Letter of Medical Necessity section within this document for more detailed information about LMNs.)

Rehabilitation Engineer

Occasionally, a Rehabilitation Engineer is on the team, especially in an evaluation center who works with those who have more complex physical disabilities. Rehabilitation engineers are professionals who are experts at customizing commercially available equipment or fabricating something unique.

It is the engineer's job to know about loads, forces, torques, etc. and the interaction of those things with the individual's body and their wheelchair. These are all of the things that affect how the individual's wheelchair will perform over time.

Some Rehabilitation Engineers have a bachelor's degree, some may have a master's degree, and some may have learned their vocation while in the military or on the job. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) offers certifications for rehabilitation engineers and technologists.

Vendor/Rehab Technology Supplier/DME Dealer/DME Salesperson

This person is sometimes called a "vendor" or a "durable medical equipment" or DME dealer. It is the vendor's job to know all about specific kinds of wheelchairs, to know the equipment features and manufacturers and to be able to compare the characteristics of wheelchairs or cushions and their suitability for each individual.

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Parents/Legal Guardians/Program Managers/Direct Care Givers/Case Managers

It is essential to have at least two team members who are very familiar with the individual's daily activities, the different environments they are in, their transportation methods, the width of the doorways in their living and workspaces, the height of the dining table, the terrain where they live (i.e., specialty tires are needed), etc. All of this information can help the individual's care team choose the wheelchair that best fits their needs.

Durable Medical Equipment (DME), Complex Rehab Technology (CRT), Assistive Technology, and Environmental Modifications

Type of Equipment	<u>Durable Medical Equipment</u>	<u>Complex Rehab Technology</u>	<u>Assistive Technology</u>	<u>Environmental Modifications</u>
Bedside Commodes	X			
Canes & Walkers	X			
Catheters	X			
Standard, Manual Wheelchairs, Off-The-Shelf	X			
Cervical Collars	X			
Kidney Machines	X			
Blood Sugar Monitors, Lancets, & Test Strips	X			
Hospital Beds	X			
Crutches	X			
Nebulizers	X			
Oxygen Equipment Portable & Oxygen Systems	X			
Scooters	X			

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Post Office Box 1797
Richmond, Virginia 23218-1797

Telephone (804) 786-3921
Fax (804) 371-6638
www.dbhds.virginia.gov

Vaporizers	X			
Vest Systems To Promote Airway Clearance or Improve Bronchial Drainage	X			
Ventilators	X			
Sleep Safe Beds		X		
Standing Devices		X		
Gait trainers		X		
Highly Configurable Manual Wheelchairs		X		
Adaptive Seating Systems		X		
Complex Power Chair Systems		X		
Alternative Seating And Positioning Seats (e.g. Tumble forms) (Specific criteria for approval)			X	
Elevators For Accessibility (Specific criteria for approval)			X	X
Platform Lifts (Specific criteria for approval)			X	X
Ceiling Lifts (Specific criteria for approval)			X	X
Modifications To A Primary Automotive Vehicle (Specific criteria for approval)			X	X
Wheelchair ramps (Specific criteria for approval)				X
Grab bars (Specific criteria for approval)				X
Bathroom modifications for accessibility				X
Door widening (Specific criteria for approval)				X

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Definitions linked to Virginia Code:

"Assistive technology" means any item, piece of equipment or device that enables an individual with a disability to improve his or her independence and quality of life.

"Complex rehabilitation technology" or "CRT" means manual and powered wheelchairs and their accessories that are customized and individually configured to meet the specific medical, physical, and functional needs of the individual who has a primary diagnosis resulting from a congenital disorder, progressive or degenerative neuromuscular disease, or from certain types of injury or trauma.

"Durable medical equipment" or "DME" means medical equipment, supplies, and appliances suitable for use in the home consistent with 42 CFR 440.70(b)(3) that treat a diagnosed condition or assist the individual with functional limitations.

"Environmental modifications" service means physical adaptations to the individual's home or primary vehicle that are necessary to ensure the individual's health and welfare or to enable functioning with greater independence. Environmental modifications service shall be covered in the FIS, CL, and BI waivers.

Resources

Virginia Department of Medical Assistance Services - For published electronic and printable copies of all DMAS Provider Manuals and Medicaid Memoranda, go to the DMAS Web Portal at: <https://www.virginiamedicaid.dmas.virginia.gov/wps/portal/>

Virginia's Medicaid Managed Care Plans - As of July 1, 2025, Virginia Medicaid will have 5 Managed Care Plans:

- Aetna Better Health of Virginia: [Aetna Medicaid Virginia](#)
- Anthem HealthKeepers Plus: [Anthem](#)
- NEW Humana Healthy Horizons of Virginia: [Humana Healthy Horizons](#)
- Sentara Health Plans: [Sentara Health Plans](#)
- United Healthcare of the Mid-Atlantic, Inc: [UnitedHealthcare Community Plan](#)

PMD Service Pre-Authorizations -

For resources for submitting service pre-authorizations for PMD wheelchairs, please go to the Acentra Health Website at: <https://dmas.kepro.com>

For any questions regarding the submission of service pre-authorization requests for PMDs, please contact Acentra Health at: 888-827-2884 or 804-622-8900.

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For general coverage questions about wheelchairs and accessories, please see the downloadable Virginia DMAS pdf: [Medicaid Durable Medical Equipment \(DME\) And Supplies Listing.](#)

Service Authorization Questions - For questions about Service Authorizations for the CL Waiver, please see the

[Provider Manual Title: Developmental Disabilities Waivers \(BI, FIS, CL\)](#)

[Revision Date: 10/10/2024](#)

[Appendix D: Service Authorization for DD Waiver Services](#)

Sample Letters of Medical Necessity for DME and Assistive Technology (AT):

- <https://www.metlife.com/stories/benefits/letter-of-medical-necessity/#:~:text=I%20am%20writing%20on%20behalf,any%20enclosures%5D%20for%20further%20details>
- [https://www.dati.org/funding/lmn/sampleALL.htm#:~:text=LMN%20SAMPLE%20%231&text=To%20Whom%20It%20May%20Concern,Communication%20Device%20\(speech%20prosthesis\).](https://www.dati.org/funding/lmn/sampleALL.htm#:~:text=LMN%20SAMPLE%20%231&text=To%20Whom%20It%20May%20Concern,Communication%20Device%20(speech%20prosthesis).)
- https://www.rehabmart.com/pdfs/ltr_3.pdf?srsId=AfmBOorbR9DluX4rx1rCAz8ubihRkh3xbrSfLXW76ovk2jMlqP_PQqfO
- <https://primeengineering.com/letters-of-medical-necessity>
- <https://freedomconcepts.com/resources/medical-justification/>

New Wheelchair Assessment Guides - The following new wheelchair assessment guides can help you prepare for the new wheelchair appointment and are downloadable:

- <https://www.emedny.org/providermanuals/dme/PDFS/Wheelchair%20evaluation%20template%203-09.pdf>
- <https://nrrts.org/wp-content/uploads/2019/06/Wheeled-Mobility-and-Seating-Evaluation-fillable.pdf>
- <https://www.sunrisemedical.com/getattachment/1d7ffd15-2d3f-41e8-aa02-ed5c57585f89/Education-in-Motion-Resources-Other-Articles-Wheelchair-Assessment-Measuring-Guide.pdf>

WC-19 Safety - <https://wc-transportation-safety.umtri.umich.edu/wc19/>

RESNA WC19 and ISO 7176-19 Standards - Frequently Asked Questions - <https://wc-transportation-safety.umtri.umich.edu/group-c-transport-wheelchairs-resna-wc19-and-iso-7176-19-standards-frequently-asked-questions/>

PERS/EM/AT Providers:

- [EM and AT Provider List](#)
- [PERS Provider List](#)
- [Member Guide for Environmental Modifications and Assistive Technology](#)

University of Michigan's Safety Tips for 4-point Tiedown Securement of Wheelchairs - https://wc-transportation-safety.umtri.umich.edu/wp-content/uploads/sites/517/2021/01/Van-Modifier-SafetyTips_FOR-INSTALLERS-OF-PASS-4PT-CLIENTS-10-29-13.pdf

Virginia Department of Education's School Bus Driver Curriculum - [The Virginia School Bus Driver Training Curriculum \(includes training for transporting individuals with special transportation needs\)](#).

OIHSN Resources

Scan the QR code to open the link for the OIHSN website and all the dental, nursing, physical therapy, wound care, assistive technology and mobile rehab engineering resources.



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2. [Charlton, K., Murray, C., Layton, N., Ong, E., Farrar, L., Serocki, T., & Attrill, S. \(2025\). Manual wheelchair training approaches and intended training outcomes for adults who are new to wheelchair use: A scoping review. *Australian Occupational Therapy Journal*, 72\(1\), e12992.](#)
3. [Dzogbewu, T. C., Whitehead, T., de Beer, D. J., & Torrens, G. \(2024\). Adoption and Use of Customized Wheelchairs Manufactured for Persons Living with Disability: Modified UTUAT-2 Perspective. *Designs*, 9\(1\), 3.](#)
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7. [Klinich, K. D., Manary, M. A., Orton, N. R., Boyle, K. J., & Hu, J. \(2022\). A literature review of wheelchair transportation safety relevant to automated vehicles. *International journal of environmental research and public health*, 19\(3\), 1633.](#)
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9. [More, S., Dunn, M., Rios, S. A., & McDonald, R. \(2025\). Customization of manual wheelchair components: a state-of-the-art review. *Journal of NeuroEngineering and Rehabilitation*, 22\(1\), 66.](#)
10. [Owens, J., & Davis, D. D. \(2023\). Seating And Wheelchair Evaluation. In *StatPearls \[internet\]*. StatPearls Publishing.](#)
11. [World Health Organization. \(2023\). *Wheelchair provision guidelines*. World Health Organization.](#)
12. [XSENSOR Marketing. \(2022, December\). What are pressure mapping sensors & what can you do with them? \[Internet\]](#)

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.

Wheelchair Assessment Considerations Quiz/Evaluation

Name: _____ Date: _____

Email Address: _____

Quiz:

1. What two categories do wheeled mobility devices fall into?
 - a. Complex rehabilitation technology (CRT) (customized wheelchairs).
 - b. Durable medical equipment (DME) (non-customized wheelchairs).
 - c. All of the above.
2. Centers for Medicare & Medicaid defines DME as ...
 - a. Durable (can withstand repeated use).
 - b. Used in the home.
 - c. Used for a medical reason.
 - d. Expected to last at least 3 years.
 - e. All of the above.
3. Periodic seating assessments are meant to address which changing needs wheelchair users have...
 - a. Mobility changes.
 - b. Weight fluctuations.
 - c. Maintenance and repairs.
 - d. All of the above.
4. What is a fold-up type wheelchair commonly known as?
 - a. Customized wheelchair.
 - b. Transport wheelchair.
 - c. Standard wheelchair.
 - d. Non-customized wheelchair.
5. Folding wheelchairs are not recommended for individuals who...
 - a. Spend more than 3 hours every day in a wheelchair.
 - b. Can walk on their own without assistance.
 - c. Have recently had surgery or a hospitalization.
 - d. Already have a customized wheelchair.
6. What are the benefits of a folding transport wheelchair?
 - a. They work best on slippery surfaces.
 - b. They are great to use at the beach on the sand.
 - c. They are very lightweight and can be easily folded and transported in the trunk of a car.
 - d. All of the above.
7. When does a wheelchair require a WC19 Compliant Label?
 - a. When a wheelchair is being customized by a manufacturer.
 - b. When the wheelchair will not be used as a passenger seat in a vehicle.
 - c. When the manufacturer has designed the wheelchair for use as a passenger seat in a vehicle.
 - d. All of the above.

Wheelchair Assessment Considerations Quiz/Evaluation

Name: _____ Date: _____

Email Address: _____

8. The physical therapist (PT), whether based at a wheelchair clinic or within the community, will need information about the individual's...
 - a. Medical history.
 - b. Functional abilities such as strength, and range of motion.
 - c. Environmental needs such as work, school, day program, group home, family home, and community activities.
 - d. All of the above.
9. When should pressure mapping be a part of a new wheelchair or seating assessment?
 - a. Pressure mapping is never done during a wheelchair assessment.
 - b. When the individual has any history of pressure injuries.
 - c. When an individual gets a wheelchair for the first time.
 - d. All of the above.
10. What support team members are required for a wheelchair - seating assessment?
 - a. DME Vendor/Salesperson/Supplier.
 - b. Physical Therapist (PT)
 - c. All of the above.

Evaluation:

1. Was the information presented in this Health & Safety Alert helpful?
 - a. Yes
 - 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
 - b. Yes, but I would have attended the meeting regardless
 - c. 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:
