Seating & Positioning Strategies for Long Term Care and Memory Care

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SEATING AND MOBILITY EXPERTS

OBJECTIVES

Wheelchair positioning in Long Term Care is a multi-variable balancing act. It encompasses attention to cognitive, psychosocial as well as physical components. It involves the resident, their families, and multiple staff entrusted in their care. Seating systems in LTC settings where memory impairment is prevalent need to be global, wholistic, and flexible in an interdependent and ever-changing environment. This course is designed to give clinicians tools and strategies for effective evaluations and seating system implementation for the continuum of memory care. It will compare components of common styles of wheelchairs available and how they can be most effective in a memory care setting.

Objectives:

- Identify 2 specific seating components for fall from wheelchair reduction with varying wheelchair designs and positioning.
- Identify seating and mobility implications to address dementia related mobility limitations.
- Identify relevant payment and coverage criteria for mobility equipment in the long term care setting.

WHY IS THIS IMPORTANT?

-The number of nursing home residents in the United States is projected to reach three million by the year 2030.

-80% of residents spend time sitting in a wheelchair every day.

-74.7 million people will be demented by 2030

-In a single-subject intervention study of 13 elderly NH residents who used a wheelchair for mobility, subjects were given formal seating evaluations and provided a new individualized custom wheelchair. Pre- and posttest results indicated that all subjects benefited from the new seating systems by demonstrating improved posture, more efficient mobility, increased functional independence, and improved quality of life.

DEMENTIA REALTED CONSIDERATIONS

- Dementia is a term used to describe a group of symptoms affecting memory, thinking and social abilities severely enough to interfere with your daily life.
- Dementia isn't a specific disease, but several diseases can cause dementia. (Alzheimer's, Lewy body, vascular, Huntingtons, TBI, Parkinson's disease, MS)
- Symptoms
  - Memory loss
  - Impaired communication
  - Impaired visual and special abilities
  - Impaired reasoning and problem solving
  - Impaired coordination and motor function
  - Inappropriate behavior
  - Agitation and depression
  - neurodegenerative changes

DEMENTIA- more than just memory

Motor loss is the most obvious loss of function (after memory) when discussing residents with dementia.

- Decreased gait speed
- Poor balance
- Impaired coordination
- Stiff muscles/ abnormal tone
- Shuffling gait
- Weak muscles and fatigue
- Bladder and bowel incontinence
- Tremors
- Extrapyramidal symptoms (dyskinesias, dystonia, parkinsonism, akinesia)
- Loss of processing speed of motor and sensory stimulus
- Decreased motor planning
- Abnormal eye movements
- Slowed movements
- Involuntary muscle contractions that cause slow, repetitive movements that may be painful or cause abnormal postures
- Diminished ability to recognize need to shift etc- increased wounds

DEMENTIA- more than just memory

- Compared to cognitively-normal individuals, people with dementia tend to perform poorly on mobility tests and to report higher levels of disability.
- Global measures of cognition and working memory and executive function have been linked to changes in physical performance in older adults
- Decline in cognition is associated with decline in mobility regardless of whether the physical task requires a great cognitive input or not.
- Dementia represents a major cause of functional dependence likely surpassing the effect of other risk-factors
  - Other risk factors: visual impairments, heart disease, hip fracture, age, osteoporosis, osteoarthritis, weakness, pain.

DEMENTIA- Seating implications

- Poorly positioned residents often present a misleading picture and may be perceived by onlookers as unable or unwilling to participate in social interaction.
- Improving wheelchair skills with targeted intervention programs, along with making chairs more "user friendly" (e.g., grip extensions on brakes, foot pedals that one can move without bending over). = More independent mobility improvements, freedom of movement, and quality of life.
- Allowing independent WC mobility decreases falls risk by allowing people to move and reduce agitation and attempting to stand unsafely.
- Cognitive function may be negatively affected by poor positioning, especially when the user's eyes are directed up toward the ceiling, which can promote shortened neck tendons, confusion, and isolation.
- Must consider agitation and behaviors when selecting seating and accessories.

What is the facility responsible for?

LTC facilities are expected to provide a resident with limited mobility appropriate services, equipment, and assistance to maintain or improve mobility with the maximum practicable independence unless a reduction in mobility is demonstrably unavoidable.

It is neglect if:

- Not regularly moving people with mobility issues
- Failing to provide appropriate wheelchairs, walkers, or canes
- Forgetting to move residents with severe mobility or cognitive issues.
- Environmental hazards within the nursing home, such as poor lighting, wet floors, incorrect bed height, or inadequate wheelchair size and maintenance

- SNF can be cited, fined, and sued for not providing appropriate seating and mobility.
  - Pressure sores, people slumped over, feet catching on the floor, fall from wheelchair, and wheelchair related injuries.

START WITH THE SAME EXPECTATIONS AS ALL SEATING

PRIMARY GOAL: Provide optimal mobility and function while addressing postural needs, co-morbidities, pain, and personal needs.

ADDRESSING COMMON POSITIONING ISSUES

PAYMENT CONSIDERATIONS

- MEDICARE- pays for no equipment in SNF
  - (except part A if they are going to DC home- then you can start the process under all normal MC rules)
- Long Term Care insurance-
  - covers a portion of the stay- not equipment (except for a small few private plans)
- Escalate requests to administration for MC clients!-
  - remember they are obligated to provide adequate equipment and can be cited for failing to do so!

MEDICAID/ PRIVATE INSURANCE

Equipment coverage will be considered if:

- The member needs a wheelchair that must be modified. Wheelchairs manufactured in various widths and sizes are not considered modified. Modified means one of the following:
  - The addition of an item to the wheelchair that cannot be removed without damaging the wheelchair
  - It permanently alters the wheelchair so it is no longer usable by other residents of the facility
  - The wheelchair is necessary for the continuous care and exclusive use by the member to meet their unusual medical need. Please note:
    - Exclusive use alone does not justify approval of a wheelchair for a member if the chair required is a standard chair.
  - Medical conditions common or expected in nursing facility populations are not “unusual” just because they are rare in one specific facility. For example, Alzheimer’s disease, osteoporosis and vulnerability to pressure ulcers are common in nursing facilities
  - The resident is being discharged to the community. Document the resident’s planned discharge date. If the member is being discharged, a standard wheelchair may be approved if it meets the member’s needs
  - Facilities must exhaust other options for meeting a member’s needs, such as non-permanent positioning items, before requesting authorization for a wheelchair.

INSURANCE cont…

Authorization for a power wheelchair will be considered only if it allows the member to experience inclusion and integration in the long-term care facility. All coverage criteria for a power wheelchair must be met.

All of the following basic criteria (A-C) must be met for a power mobility device or a push-rim activated power assist device. Additional criteria for specific devices is also needed:

A. The beneficiary has a mobility limitation that significantly impairs his/her ability to participate in one or more mobility-related activities of daily living (MRADLs) such as toileting, feeding, dressing, grooming, and bathing in customary locations in the home. A mobility limitation is one that:
    A. Prevents the beneficiary from accomplishing an MRADL entirely, or
    B. Places the beneficiary at reasonably determined heightened risk of morbidity or mortality secondary to the attempts to perform an MRADL; or
    C. Prevents the beneficiary from completing an MRADL within a reasonable time frame.

B. The beneficiary's mobility limitation cannot be sufficiently and safely resolved by the use of an appropriately fitted cane or walker.

C. The beneficiary does not have sufficient upper extremity function to self-propel an optimally-configured manual wheelchair in the home to perform MRADLs during a typical day.
    A. Limitations of strength, endurance, range of motion, or coordination, presence of pain, or deformity or absence of one or both upper extremities are relevant to the assessment of upper extremity function.
    B. An optimally-configured manual wheelchair is one with an appropriate wheelbase, device weight, seating options, and other appropriate nonpowered accessories.

https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?LCDId=33789&ContrID=140

And on...

Power Wheelchairs and Accessories For Participants In A Nursing Home

In addition to the requirements above, requests for Group 2 power wheelchairs for participants residing in a nursing home must:

A. Document one of the following diagnoses:

Spinal cord injury resulting in quadriplegia or paraplegia (344.00-344.1)

Other spinal cord diseases (336.0-336.3)

Multiple Sclerosis (340)

Other demyelinating disease (341.0-341.9)

Cerebral Palsy (343.0-343.9)

Anterior Horn Cell Diseases including Amyotrophic Lateral Sclerosis (335.0-335.21, 335.23-335.9)

Post polio paralysis (138)

Traumatic brain injury resulting in quadriplegia (344.09)

Spina Bifida (741.00-741.93)

Childhood cerebral degeneration (330.0-330.9)

Current stage II or greater pressure ulcer (707.03, 707.04, 707.05) on the area of contact with the seating surface (trunk, spine or pelvis) (must be noted and described by the physician in the face-to-face visit; justification must document what other types of skin protection measures have been utilized)

Severe orthopedic abnormality of the hip, spine or pelvis significantly affecting positioning (must be documented by the physician in the face-to-face visit)

B. Explain why a less costly mobility device is unable to meet the participant's needs including a description of equipment trials and their effectiveness.g

And on...

Requests for Group 3 power wheelchairs will only be considered when the following

criteria are met:

All criteria for a Group 2 power wheelchair are met; and

Medical justification provides extensive documentation of why a Group 2 power wheelchair and other less costly devices will not meet the participant's needs; and

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7.5

Documentation includes the length of time the participant has resided in the nursing home; and

One of the following

Documentation includes a copy of the discharge plan from the nursing home's patient record that clearly states the participant's discharge date is in the next 90 days to an independent or less restrictive living environment and that the participant will be involved in activities that require the client to utilize a wheelchair in the community on a frequent basis (e.g. work, shopping, self-transport to appointments). Supporting documentation from a physician, social worker or OT/PT explaining the participant's discharge plans and mobility needs must accompany the discharge plan; or

The medical necessity justification provides clear documentation the participant requires specialty controls other than a joy stick to independently operate the wheelchair.

AND ON...

Custom Wheelchairs For Participants In A Nursing Home

When prior authorized, MO HealthNet will reimburse for medically necessary custom

wheelchairs for participants residing in a nursing home. All prior authorization requests

must indicate why a less costly wheelchair is unable to meet the participant's needs.

Criteria A, B and C below describe the various criteria utilized for a wheelchair to be

considered custom. Criteria for individual HCPCS codes are listed following criteria A, B

and C below.

A. Any wheelchair with a custom seating system. A custom seating system is a

wheelchair seating system which is individually made for a participant using a

plaster model of a participant, a computer generated model of the participant

(i.e. CAD-CAM technology), or the detailed measurements of the participant

to create either:

a molded, contoured, or carved (foam or other suitable material) customfabricated

seating system that is incorporated into the wheelchair base; or

a custom seating system made from multiple pre-fabricated components

or a combination of custom fabricated materials and pre-fabricated

components which have been configured and attached to the wheelchair

base or incorporated into a wheelchair seat and/or back in a manner that

the wheelchair could not easily be re-adapted for use by another

individual.

To qualify for a custom seating system, an individual must meet all the requirements of

a custom fabricated seat cushion or a custom fabricated back cushion as described in

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Section 13.29.G of the Durable Medical Equipment Provider Manual. The prior

authorization request must document all of the following:

Why a prefabricated system is not sufficient to meet the participant's seating and

positioning needs.

What orthopedic deformity is present and its fixed or flexible presentation.

What altered muscle tone is present and its increased or decreased presentation

that affects seating and positioning.

Why any existing system is not meeting the participant's seating and positioning

needs.

B. A specially sized or constructed wheelchair that is provided to a participant

whose anatomical measurements require the following:

A wheelchair seat width of 25 inches or more; or

A wheelchair with a weight capacity for 351 or more pounds; or

A wheelchair with a seat to floor height of less than 15 ½ inches.

C. A wheelchair for a participant who has absent or impaired sensation in the

area of contact with the seating surface or inability to carry out a functional

MN Medicaid/ Private insurance

Standard seating is included in the per diem- includes base and seating

- Custom DME is provided when the equipment requires modification which are not removable without damaging the chair. (Anything you need a tool for)
  - Modifications must be required to address:
    - positioning, deformity, scoliosis, sores, tone, spasticity, flaccidity, weakness in the trunk, contractures, etc.
  - Modifications must result in a function/ ability/ goal:
    - Prevent sores, feed self, swallow, interact with peers, self cares, efficient or effective propulsion, independent mobility, decrease choking or aspiration, engagement in ADLs and MRADLs, etc.
- Modifications can include; Arm trough, lateral supports, hip pads, non standard footrests, chair angles, dump, K0005 frame requirements, custom seating.
  - The chair will be set up in a way where it cannot be used for another client
- Modifications do NOT include seat width/ depth or basic cushion and back
- If the components are covered- the base is as well. The seating coverage drives the base coverage.
- This is true for Manual, Power, and tilt-in-space.

FALLS FROM THE WHEELCHAIR

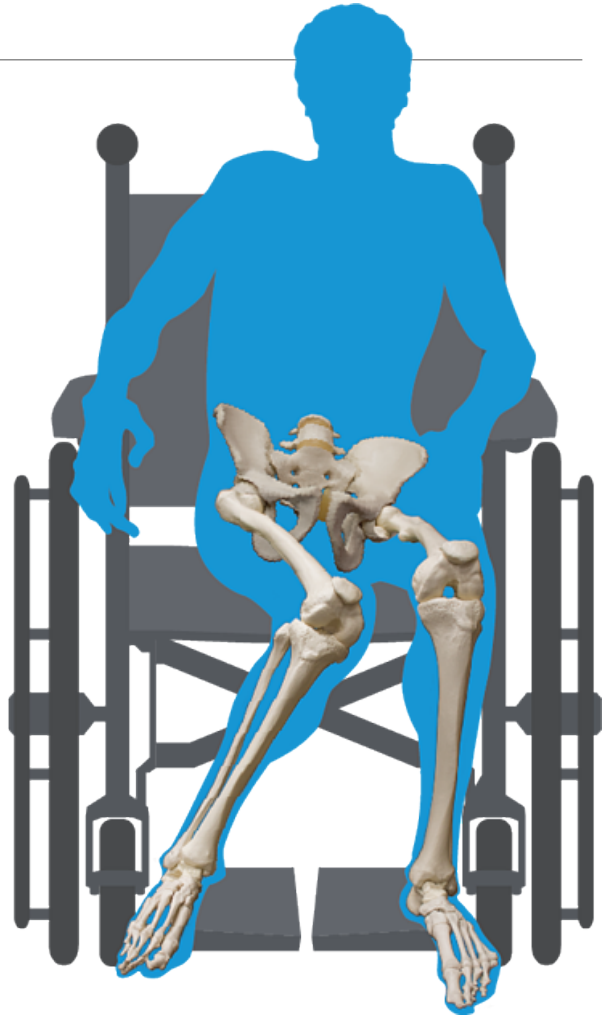
- A common reason why patients end up sliding out of, or falling out of chairs is down to a lack of or an inadequate seating assessment.
- This results in a patient being put in a chair which typically doesn't accommodate the three following factors:
  1. Physical weakness or imbalance
     - Shortened hamstrings
     - Limited hip ROM
     - Limited pelvic and spine ROM
  2. Confusion/ cognitive impairments (This may be medication-related or part of the advancing disease process.)
  3. Improper fit
     - Poorly fit footplates
     - Incorrect seat depth
     - Poor seating

PREVENT FALLS FROM THE WHEELCHAIR

1. **Wheelchair alarm**
2. **Back angle recline:**
   - accommodate a fixed hip angle or shortened hamstring
   - Accommodate abdominal habitus.
3. **Dump**
   - Allows for gravity support to reduce fatigue
   - Makes it more difficult to slide forward in the seat.
   - *Relax INTO seating*
   - May need to be used in conjunction with back angle recline
4. **Adjustable footplate:**
   - This is necessary in order to load the feet as 19% of a person's body weight goes through the feet when seated.
   - This will allow for passive support of the skeleton
5. **The support from additional adaptations:**
   - Lateral supports : Help keep the posture in mid line position, reducing falling to one side and needing repositioning.
   - Positioning belts
6. **Antithrust cushion:**
   - Decrease anterior shearing and sliding from the chair.
   - May need to be combined with back angle recline.

WINDSWEPT POSTURE

What's happening at the…	
Pelvis and legs	Typically a rotation or an obliquity causing one leg to adduct and the other to abduct
Spine	Typically a rotation or scoliosis
Head	Neck in lateral flexion/ forward flexion



WINDSWEPT POSTURE

What to do…	
Cushion	-Look for contoured or one that can be built up to neutralize the femurs as much as possible. -Avoid ELRs -Build up under pelvis to CORRECT the obliquity -Build up under the high side to allow lower IT to immerse to ACCOMMODATE the obliquity. -Add rigidizer if seat is hammocking
Frame	-Ensure correct seat to floor height (is it too low?) -Ensure correct seat depth (Is it too shallow?) -Ensure footplates aren't too high. -Using only one footplate? -Ensure correct width (is it too wide OR too narrow?)
Other	-Lateral or medial pelvic and thigh supports -Medial or lateral knee blocks (prevet knee wounds!)

PELVIC OBLIQUITY/ ROTATION

What's happening at the…	
Pelvis	One ASIS elevated vs the other One ASIS is anterior vs the other
Spine	Thoracic spine scoliosis with convex side away from elevated side. Thoracic spine rotates with the pelvic
Head	Neck in lateral flexion toward high hip

PELVIC OBLIQUITY/ ROTATION

What to do…	
Cushion	-Build up under pelvis to CORRECT the obliquity -Build up under the high side to allow lower IT to immerse to ACCOMMODATE the obliquity. -Add a rigidizer if hammocking
Seating	-Positioning belt -Is the backrest too low? Is the seat too wide? -Using one footplate/ footplates unequal heights -Armrests are too high or low? -Is the obliquity a result of lateral lumbar trunk flexion?
Other	-contoured back to accommodate associated scoliosis -Trunk laterals to accommodate associated scoliosis

POSTERIOR PELVIC TILT

What's happening at the…	
Pelvis	Higher ASIS than PSIS with sacral sitting posture
Spine	Excessive thoracic kyphosis, flattening of the lumbar spine, and cervical lordosis *restricts lung function, digestive function, swallow!*
Head	Forward neck flexion causing downward eye gaze (increases confusion and agitation)

POSTERIOR PELVIC TILT

What to do…	
Cushion	-medial and lateral contour to stabilize pelvic and LE alignment -Add rigid insert to correct hammocking -Cushion with antithrust if shearing is the problem (flexible) -Use immersion style cushion for pressure management (fixed) -Solid seat insert if seat is hammocking.
Chair	-Consider Tilt in space -Open back angle (accommodate ROM and trunk fatigue) -Ensure hamstring lengths have been accommodated. -Ensure seat depth isn't too deep -Ensure seat to floor height isn't too high for foot propulsion.
Other	-Avoid ELRs -Positioning belt -Ensure footplates aren't too high or low -Ensure armrests aren't too low

OTHER SEATING ISSUES

- Cushion orientation- Cushions are often backward/ upside down- Label inside and out.
- Cushion quality- they should be replaced every 2 years. Is it worn out?!
- Agitation- May need to consider
  - Dump
  - tilt in space
  - a positioning belt
  - antithrust cushion
  - open back angle
  - Tunk laterals- can they get “stuck” on them
  - Wider head support – can they get their head behind it?

General seating considerations for LTC

STABILIZE cushion and back supports

- Add stability by locking in the LEs, pelvis, and trunk
- Cushions that are highly contoured and will prevent the movements that place residents at risk to fall.
- Built in anti-thrust shelves help to prevent forward migration of the pelvis.
- Contoured back supports increase surface, increasing stability and alignment and prevent unwanted leaning

ACCESORIZE-extra stability and alignment

Lower extremity supports decrease excessive joint movement to:

- HELP STABILIZE THE PELVIS
- Decrease the risk of contracture or progression of an existing contracture
- Protect the limb from injury- (Wounds, banging doorframes, etc).
- Minimize spasticity and prevent unwanted reflexes- (increase falls, shearing, pain)
- Decrease tone
- Support the leg, foot, and ankle in optimal position (remember- 19% of the weight is through the legs- this prevents falls from the chair!)
- Accommodate a contracture
- Accommodate wounds and pressure
- Accommodate an amputated limb

ACCESSORIES cont…

Upper extremity supports:

- Add postural stability
- Add length to support a full arm (pain, edema, wounds)
- Decrease the risk of contracture or progression of an existing contracture
- Decrease dependent edema
- Stabilize the shoulder to prevent nerve impingement and damage
- Help place the UE in a more functional posture
- Improve comfort/ sitting tolerance

**Look for an UE support that can be moved multi-directionally to elevate and articulate and position the arm in any plane. This will help you to customize it to meet any resident's individual need.

ACCESSORIES cont…

Lateral Supports:

- Stabilize the trunk
- Allow for improved ability to self propel
- accommodate poor trunk strength and balance (falls, function)
- Accommodate postural deformation progression (and associated complications)
- Prevent leaning
- Help to regulate tone
- Prevent abnormal curvature or progression of an existing abnormal curvature
- Improve upper extremity function
- Decrease pressure on boney prominences of the spine.
- Improve breathing/ swallowing functions

ACCESSORIES cont…

- Positioning belts
- Headrests
- Anti-roll back wheels- only for a select few
- Shoulder harness or chest strap or vest
- Angle adjustable footplates

ADJUSTABILITY

Look for a chair that can be adjusted in these areas:

- STFH (Seat to Floor Height) beyond just the hemi height setting
- Arm rest height
- Seat to back angle
- Back height
- Can create a fixed tilt, “dump” in the seat

RESTRAINT

- Before a resident is restrained, the facility must determine the presence of a specific medical symptom that would require the use of restraints, and how their use would treat the medical symptom, protect the resident's safety, and assist the resident in attaining or maintaining his or her highest practicable level of physical and psychosocial well-being. This includes the facility's discussion with the resident, (and/or if indicated) their legal surrogate or representative of potential risks and benefits of all options under consideration including using a restraint, not using a restraint, and alternatives to restraint use.
- Medical symptoms that warrant the use of restraints must be documented in the resident's medical record, ongoing assessments, and care plans.
- Positioning is not the same as a restraint
  - What are you denying your client if you deny positioning?
    - If they weren't in LTC…. Would I want this positioning feature?
  - I encourage you to document "non restraint" efforts and seek a MD order for "restraint" when it's appropriate.

WORKING BACKWARDS…

Another way to problem solve seating issues/ things to think about!

SEAT HAMMOCKING

CAUSES…	LEADS TO…	POSSIBLE SOLUTION…
Pelvis collapses	Sacral sitting	Add Rigid inserts
Leans to one side seeking stability	Postural deformation, diminished use of extremities, poor trunk support	Add Rigid Insert
Lower extremities in internal rotation and adduction or windswept	Pain, rounding of the trunk, hip and back pain/ strain. Adduction contractures	Add rigid insert

SEAT TOO WIDE

CAUSES…	LEADS TO…	POSSIBLE SOLUTION…
Leans to one side seeking support	Postural deformation, increased pressure on one buttock (wounds)	Get a narrower frame
Inability to use armrests and therefore extremities	Inability to feed, propel, participate in functional tasks	Get a narrower frame

SEAT DEPTH TOO DEEP

CAUSES…	LEADS TO…	POSSIBLE SOLUTION…
Pressure on posterior knee	Posterior pelvic tilt/ sacral sitting	-Get appropriate seat to floor height. -Adjust cushion height IF APPROPRIATE -Adjust footplates
Pressure on distal thigh	Lower extremity edema/ numbness	-Get appropriate seat to floor height. -Adjust cushion height IF APPROPRIATE -Adjust footplates
Unable to foot propel	Slides forward to reach the ground, in sacral sit	-Adjust cushion height IF APPROPRIATE -Get appropriate seat to floor height

SEAT DEPTH TOO SHALLOW

CAUSES…	LEADS TO…	POSSIBLE SOLUTIONS…
Poor femoral support	-Windswept, adducted, or abducted posture. -Heavy pressure on the Its/ sacrum, and coccyx	-Get appropriate depth of seat -Contour seating -Rigid insert and longer cushion
High pressure at seats edge	-Lower extremity edema -Lower extremity numbness -Pain	-Get appropriate depth of seat -Contour seating -Rigid insert and longer cushion

SEAT TO FLOOR TOO HIGH

CAUSES…	LEADS TO…	POSSIBLE SOLUTIONS…
Unable to reach feet to floor to foot propel	-Posterior tilt/ shearing anterior to reach the floor -Rotate to reach one foot to the floor	-Get correct height chair -Use lower profile cushion IF APPROPRIATE
Increased pressure at the distal thigh	Edema, lower extremity numbness, pain.	-Increase foot plate height -Use a lower profile cushion IF APPROPRIATE. -Get correct height chair
Feet dangle	Increased hip internal rotation, pain, lower extremity edema and numbness	-Increase foot plate height -Use a lower profile cushion IF APPROPRIATE. -Get correct height chair

BACK SUPPORT TOO HIGH

CAUSES…	LEADS TO…	POSSIBLE SOLUTIONS…
Resident will slide down to be able to relax into the seating	Kyphotic posture, sacral sitting, cervical flexion. -All leads to difficulty with propelling, using arms, swallowing.	-Open seat to back angle -Contoured rigid back with adjustable hardware to allow for open hip angle.
Trunk instability	Increases risk of falling anterior from chair. Sitting with lordosis and anterior pelvic tilt	-Open seat to back angle -Contoured rigid back with adjustable hardware to allow for open hip angle.

LEG RESTS TOO SHORT/ FOOTPLATES TOO HIGH

CAUSES…	LEADS TO…	POSSIBLE SOLUTIONS…
Decreased support along the femur	-High pressure on the Its, sacrum, coccyx with increased wounds -Lower extremities in abduction/ adduction/ windswept	-Lower footplate -Increase cushion thickness -Get appropriate frame/ footplate height
Increased hip flexion angle	Posterior pelvic tilt, sacral sitting, shortened hamstrings.	-Lower footplate -Increase cushion thickness -Get appropriate frame/ footplate height

LEGRESTS TOO LOW

CAUSES…	LEADS TO…	POSSIBLE SOLUTIONS…
Slide forward to reach foot support	Sacral sitting, increased sacral pressure, increased wounds risk.	-Raise footplate -Get appropriate fitting frame -Decrease cushion thickness IF APPROPRIATE -Build up footplate
Lower extremities dangle	-PF/ inversion contractures -Pressure on posterior thigh resulting in pain, edema, numbness	-Raise footplate -Get appropriate fitting frame -Decrease cushion thickness IF APPROPRIATE -Build up footplate

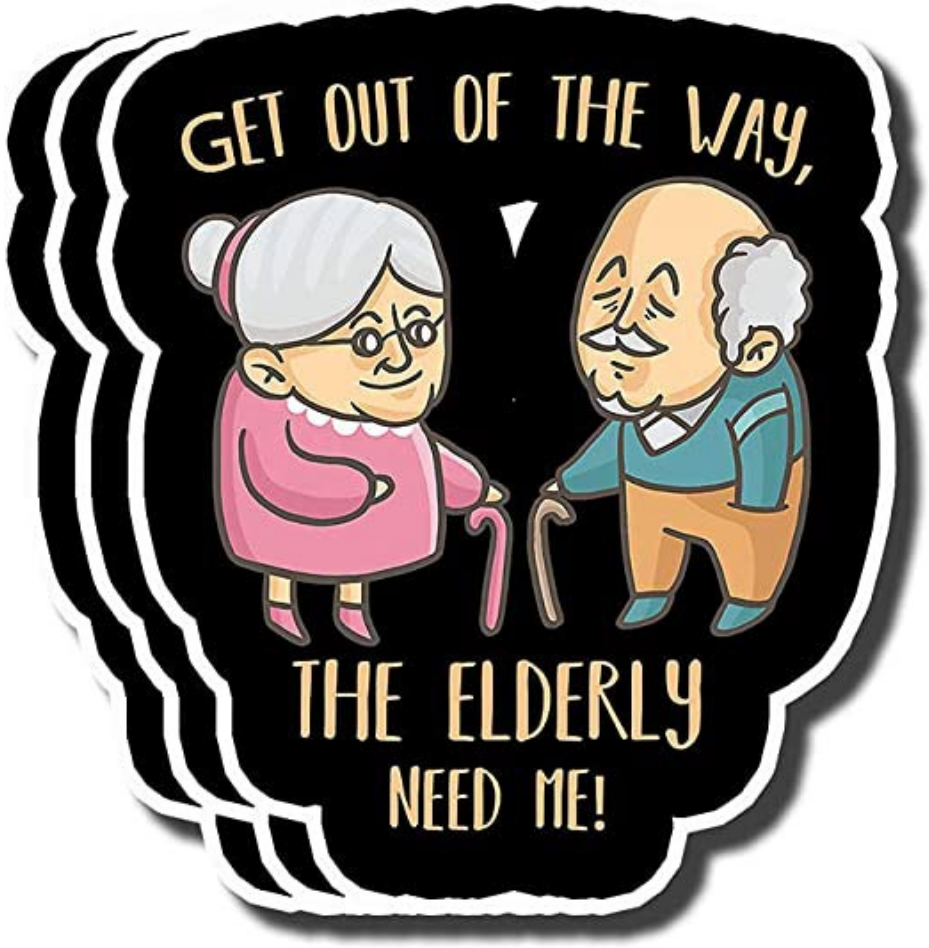
ARMRESTS TOO LOW

CAUSES…	LEADS TO…	POSSIBLE SOLUTIONS…
Client slides down to reach armrests	Sacral sitting and thoracic kyphosis	Raise armrests
Client leans laterally to reach armrests	Pelvic obliquity and scoliosis	Raise armrests
Excessive shoulder depression to reach armrests	Shoulder subluxation, shoulder and neck pain.	Raise armrests

ARMRESTS TOO HIGH

CAUSES…	LEADS TO…	POSSIBLE SOLUTIONS…
Excessive shoulder elevation	-Constant contraction of the neck muscles- fatigue, pain, contracture, numbness.	-Lower armrests -Thicker cushion
Leans against inside of armrest instead of on top of the armrests	-Lateral lean of the trunk -pelvic obliquity and scoliosis -increased pressure on one buttock -decreased ability to use upper extremities functionally.	-Lower armrests -Thicker cushion

QUESTIONS???



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