



# A JUSTIFICATION GUIDE FOR LETTERS OF MEDICAL NECESSITY: A supplement for wheelchair evaluations

## HELIO A6

An ultra lightweight wheelchair is required for \_\_\_\_\_ to accomplish one or more of the following activities:

- Dressing
- Grooming/Hygiene
- Bathing
- Feeding
- Meal Prep
- Home Management
- Work/school access

\_\_\_\_\_ is unable to independently complete \_\_\_\_\_ activities of daily living from a standing position, or with a cane, walker or crutches or standard wheelchair due to (choose reason individual cannot complete these activities with cane, walker or crutches, or standard wheelchair) \_\_\_\_\_.

\_\_\_\_\_ has demonstrated the ability to use an optimally configured ultra lightweight manual wheelchair within their home for mobility related activities of daily living.

This wheelchair must be adjusted to meet \_\_\_\_\_ needs, without these specific adjustments to \_\_\_\_\_ (insert specific adjustment, see below), \_\_\_\_\_ will not be able to independently move themselves within their environment or complete their tasks.

- Center of Gravity (axle position)
- Seat Slope/Back Angle (seat to floor height different in front and rear of wheelchair)
- Camber

\_\_\_\_\_ does not have the ability to accomplish mobility related ADLs without the requested optimally configured ultra lightweight manual wheelchair. They do not have the ability to stand to accomplish these activities with cane, crutches or a walker as stated above.

They cannot propel a standard, or high-strength lightweight manual wheelchair as they are both too heavy, and cannot be adjusted properly to fit the unique needs of \_\_\_\_\_ because they do not have the ability to adjust in the way an ultra lightweight manual wheelchair does and is manufactured to do.

The adjustments on the ultra lightweight manual wheelchair allow the device to be fit to \_\_\_\_\_ to decrease strain on the upper extremities, decrease rolling resistance, and make the device overall more efficient to push.<sup>1-2-3</sup> This ability to fit the wheelchair to \_\_\_\_\_ and not \_\_\_\_\_ to the wheelchair will allow for optimum independence in whatever capacity is required \_\_\_\_\_. Without this device, \_\_\_\_\_ may be dependent on a caregiver and not be able to complete activities without assistance.

- Home
- School
- Community
- Work

Adjustments to Center of Gravity (COG) are individual and need to be adjusted both horizontally and vertically to ensure \_\_\_\_\_ is properly positioned for the least amount of strain on their upper extremities, and to make the wheelchair as maneuverable as possible. With a standard or high-strength lightweight manual wheelchair, these adjustments are extremely limited if they exist at all. On the Helio A6 model, the COG can be adjusted in ½ inch increments both horizontally and vertically, allowing for \_\_\_\_\_ to be seated over the rear wheel for optimal efficiency. Because it is adjustable, the COG can be adjusted as \_\_\_\_\_ function changes over time ensuring the ultra lightweight wheelchair can be used for a longer period than a standard or high-strength lightweight manual wheelchair.

Evidence states that an optimal axle position can make the wheelchair more efficient and therefore easier to propel. (see references at end of document).<sup>1-2-3</sup>

Adjustments to seat slope in the ultra lightweight manual wheelchair can allow \_\_\_\_\_ to sit more INTO the wheelchair rather than ON it. To clarify, it has been shown with research that a person sitting properly between the rear wheels with seat slope will help with access to the rear wheels for optimal propulsion stroke efficiency as well as improved pelvic posture, due to the assistance of gravity, and will assist with sitting tolerance in the wheelchair for the entire day. Because the front of the wheelchair can be placed higher than the rear of the wheelchair, \_\_\_\_\_ trunk can rest into the back support of the wheelchair. In a standard or high strength lightweight manual wheelchair, there is extremely limited or zero ability to change the amount of seat slope in the wheelchair. Without the seat slope, \_\_\_\_\_ could become fatigued over time, leading to a kyphotic, more forward posture, development of musculoskeletal posture impairments and will be susceptible to other health conditions including decreased sitting tolerance and ultimately more dependence on a caregiver for assistance with ADLs.

Camber is NOT available on any other type of wheelchair other than an ultra lightweight manual wheelchair. \_\_\_\_\_ requires camber in their wheelchair to assist them with maneuverability, turning easier, and increasing the overall stability. Because \_\_\_\_\_ requires camber on their wheelchair, the ultra lightweight manual wheelchair is the only option for maximum independence.

The customization of seat width, seat depth, rear axle position (COG), rear seat-to-floor height (slope) and camber, together provide optimal axle position for propulsion and function. This is individually measured and configured for optimal push-rim biomechanics of \_\_\_\_\_. The ultra lightweight manual wheelchair will accommodate the postural needs of \_\_\_\_\_, promoting a lifetime of independence and improved quality of life.

## **HD OPTION - 265-350 WEIGHT CAPACITY**

### **Seat Width**

Non-standard seat frame width

### **Seat Depth**

Non-standard seat frame depth

## **COMPONENTS**

The following section details wheelchair components that are essential in making \_\_\_\_\_ independent and efficient in their environment to perform MRADLs.

## TIE DOWN

### WC-19 TRANSIT TIE DOWN WITH Q'STRAIT BELT SHORT BELT

### WC-19 TRANSIT TIE DOWN WITH Q'STRAIT BELT LONG BELT

- To utilize public transportation
- Q'straint belt can be attached to in vehicle system
- For transportation IN the wheelchair

### WC-19 TRANSIT TIE DOWN WITHOUT BELT

- To utilize public transportation
- For transportation IN the wheelchair

## CASTER OPTIONS

### PNEUMATIC CASTERS

- Softer ride to help to control pain and spasticity

### NEWTON ULTRACASTERS COMPOSITE OR ALUMINUM

- For use in multi-terrain environments
- Material of tire is softer
- Smoother ride to potentially help control pain
- Aluminum hub material for added durability
- Aluminum red sleeve between metal bearings and metal hub ensures easier bearing maintenance

### CASTER PIN LOCKS

- Locks caster position so it won't move during transfer

### CARBON FIBER FROG LEGS SUSPENSION FORKS

- Provides additional shock absorption
- Provides increased comfort to ride

## FOOTREST OPTIONS

### HIGH MOUNT FOOTPLATE ATTACHED TO HANGER

- For a shorter lower leg length to allow foot to sit on footplate

### ELEVATING LEGREST WITH CALF PAD

- For support of lower extremity with potential orthopedic condition not allowing knee flexion
- For support of lower extremity with pain with knee flexion
- For support of lower extremity with pain with foot in dependent position

## FOOTPLATE OPTIONS

### FOOTPLATE: NEWTON ANGLE ADJUSTABLE COMPOSITE

- For full foot coverage/support to match user foot position
- Lightweight with rubber grips, can individually remove rubber nipples for adding hardware for positioning straps

### FOOTPLATE: NEWTON ANGLE ADJUSTABLE ALUMINUM

- For full foot coverage/support to match user foot position
- More robust and heaviest option, has slits for adding positioning straps

<b>FOOTPLATE OPTIONS</b>	
<b>FOOTPLATE: ONE PIECE ADJUSTABLE ANGLE FLIP UP ALUMINUM</b>	
	<ul style="list-style-type: none"> <li>• Will "rigidize" front hangers on folding chair</li> <li>• Flip up completely out of the way for transfers</li> </ul>
<b>FOOTPLATE ACCESSORIES</b>	
<b>LENGTH ADJUSTABLE HEEL LOOP</b>	
	<ul style="list-style-type: none"> <li>• To assist with keeping foot on footplate, from sliding posterior</li> </ul>
<b>CALF STRAP</b>	
	<ul style="list-style-type: none"> <li>• To provide posterior support to the calf region</li> <li>• Will be used anteriorly to the lower leg to prevent legs from falling off the footplates toward the front of the wheelchair</li> </ul>
<b>BODYPOINT AEROMESH PADDED CALF STRAP</b>	
	<ul style="list-style-type: none"> <li>• To provide posterior support to the calf region</li> <li>• Will be used anteriorly to the lower leg to prevent legs from falling off the footplates toward the front of the wheelchair</li> <li>• Padding to prevent skin breakdown and for improved tolerance to user</li> </ul>
<b>SWING AWAY RESIDUAL LIMB SUPPORT</b>	
<b>RESIDUAL LIMB SUPPORT</b>	
	<ul style="list-style-type: none"> <li>• Will provide targeted support to residual limb</li> <li>• Adjustable in many directions for best fit</li> </ul>
<b>BACK CANE OPTIONS</b>	
<b>8-DEGREE BEND BACK CANE</b>	
	<ul style="list-style-type: none"> <li>• Will provide slight opening of seat to back angle for positioning and UE access to handrims, at a lesser cost to angle adjustable back canes.</li> <li>• Adds space between the back cane and the user for better access for propulsion</li> </ul>
<b>ANGLE AND HEIGHT ADJUSTABLE BACK CANE WITH PUSH HANDLE OPTION</b>	
	<ul style="list-style-type: none"> <li>• Angle adjustable back cane can accommodate for many functional and postural limitations</li> <li>• Can open seat to back angle for either limited ROM, or to accommodate a kyphosis</li> <li>• Can close seat to back angle for better access to rear wheels</li> <li>• Can close seat to back angle for postural support to accommodate trunk weakness and promote functional reach</li> <li>• Height adjustment if client has change in status and needs to change height of back canes either up or down</li> </ul>
<b>PUSH HANDLE OPTIONS</b>	
<b>FOLD DOWN PUSH HANDLES</b>	
	<ul style="list-style-type: none"> <li>• To allow for handles to be out of the way for transport especially in smaller spaces</li> <li>• To prevent user being "pushed" by someone when not necessary or not wanted</li> </ul>
<b>CLAMP ON HEIGHT ADJUSTABLE PUSH HANDLES</b>	
	<ul style="list-style-type: none"> <li>• To allow for user to be pushed at times with caregivers of different heights</li> <li>• To allow for push handles to be placed completely out of the way when desired</li> </ul>
<b>STROLLER HANDLE</b>	
	<ul style="list-style-type: none"> <li>• To allow for higher access for caregiver to push wheelchair</li> <li>• Rigidizes the back canes on an upholstery back</li> </ul>

<b>NEWTON FOLDING STABILIZER BAR</b>
<ul style="list-style-type: none"> <li>• Can provide rigidizing for a folding wheelchair, especially with upholstery back</li> <li>• Easily can allow for chair to still fold</li> </ul>
<b>BACK UPHOLSTERY</b>
<b>BACK UPHOLSTERY TENSION ADJUSTABLE</b>
<ul style="list-style-type: none"> <li>• Option for mild postural support</li> <li>• Allow wheelchair to fold down without extra step of removing rigid back support</li> </ul>
<b>ONE ARM DRIVE</b>
<b>ONE ARM DRIVE WITH ALUMINUM HANDRIM</b>
<ul style="list-style-type: none"> <li>• Allow wheelchair to be "steered" with one upper extremity</li> <li>• Has two standard aluminum handrims</li> </ul>
<b>ONE ARM DRIVE WITH PLASTIC COATED INNER HANDRIM</b>
<ul style="list-style-type: none"> <li>• Allow wheelchair to be "steered" with one upper extremity</li> <li>• Inner handrim with plastic coating for extra "grip and friction"</li> </ul>
<b>REAR WHEEL OPTIONS</b>
<b>MAG</b>
<ul style="list-style-type: none"> <li>• Limited to no maintenance</li> <li>• May be required by some institutions</li> </ul>
<b>NEWTON GRAVITY ULTRALIGHT WHEEL</b>
<ul style="list-style-type: none"> <li>• Increased efficiency and lighter weight than standard</li> </ul>
<b>SPINERGY SPOX</b>
<ul style="list-style-type: none"> <li>• Good balance of lightweight wheel and stability</li> </ul>
<b>SPINERGY LX</b>
<ul style="list-style-type: none"> <li>• Minimal spokes</li> <li>• Reach through access to underneath wheelchair from the side if necessary</li> </ul>
<b>SPINERGY CLX</b>
<ul style="list-style-type: none"> <li>• High stiffness</li> <li>• Responsive</li> <li>• Low weight, high strength to weight ratio</li> </ul>
<b>TIRE OPTIONS - SOLID</b>
<b>SOFT URETHANE 1 3/8" - LOW TREAD</b>
<ul style="list-style-type: none"> <li>• Designed to be fully puncture proof and low maintenance</li> <li>• Wears at a slower rate compared to pneumatics</li> <li>• Higher tensile strength allowing it to carry heavier loads</li> <li>• No maintenance requirements</li> </ul>
<b>SOFT URETHANE 1 3/8" - MEDIUM TREAD</b>
<ul style="list-style-type: none"> <li>• Designed to be fully puncture proof and low maintenance</li> <li>• Will have increased traction on outdoor terrain compared to std. urethane.</li> <li>• No maintenance requirements</li> </ul>

## TIRE OPTIONS - SOLID

### SOFT URETHANE 1" - NO TREAD - SHOX

- Designed to be fully puncture proof and low maintenance
- Performs best on hard indoor surfaces
- No maintenance
- No maintenance requirements

### PNEUMATIC WITH AIRLESS INSERT 1 3/8" - MEDIUM TREAD

- Designed to be fully puncture proof and low maintenance
- Increased traction compared to solid tires
- Softer ride than solid tires due to air tire
- No maintenance requirements
- Heaviest tire option

## TIRE OPTIONS - PNEUMATIC

### PNEUMATIC 1 3/8" - MEDIUM TREAD

- Lower rolling resistance than solid tires
- The right amount of tire pressure can offer a softer ride over bumpy surfaces and provide that tactile grip for wet surfaces

### PNEUMATIC HP 1" - LOW TREAD, PUNCTURE RESISTANT - SpeedLite

- Dual layer for extremely high puncture resistance
- High pressure achieves the least rolling resistance

### PNEUMATIC HP 1" - MEDIUM TREAD, PUNCTURE RESISTANT - TrailBlazer

- Dual layer for extremely high puncture resistance
- High pressure achieves the least rolling resistance
- Increased traction compared to low tread option

### PNEUMATIC 2" - LARGE TREAD

- Puncture protection
- Large tread increases traction on a variety of terrains
- Provides versatility and grip without sacrificing ride comfort

## HANDRIMS

### ALUMINUM BLACK HARD ANODIZED

- Dark colored anodization to seal the rim to prevent oxidation

### PLASTIC COATED

- Higher friction than standard for increased grip and energy transfer
- Wider diameter than standard, doesn't require as much of a pincer grasp

### HIGH FRICTION COATED

- High friction for high energy transfer
- Less diameter than plastic coated

### NEWTON AIR GRIP

- High friction for high energy transfer
- Same diameter as aluminum anodized

<b>HANDRIMS</b>	
<b>SURGE/ SURGE LT</b>	
	<ul style="list-style-type: none"> <li>• Oval aluminum ergonomic handrim with rubber high friction strip on top for normal hand function</li> <li>• Available in two diameters for best fit</li> <li>• May help reduce amount of grip needed to push on handrim</li> <li>• May help decrease symptoms of carpal tunnel or other overuse injuries common in persons who use manual wheelchairs</li> </ul>
<b>NATURAL FIT</b>	
	<ul style="list-style-type: none"> <li>• Oval aluminum ergonomic handrim</li> <li>• May help decrease symptoms of carpal tunnel or other overuse injuries common in persons who use manual wheelchairs</li> <li>• Allows a dual surface for propulsion and braking</li> <li>• Add thumb piece to close the gap between the handrim and wheel rim to enhances the ergonomic grip</li> </ul>
<b>SIMI H</b>	
	<ul style="list-style-type: none"> <li>• Oval hard aluminum anodized ergonomic handrim with high friction silicone strip</li> <li>• May allow hand to stay in contact with handrim even when wet</li> <li>• May help decrease symptoms of carpal tunnel or other overuse injuries</li> </ul>
<b>NOVA H</b>	
	<ul style="list-style-type: none"> <li>• Oval hard aluminum anodized ergonomic handrim with high friction grip</li> <li>• May allow hand to stay in contact with handrim even when wet</li> <li>• May help decrease symptoms of carpal tunnel or other overuse injuries</li> </ul>
<b>OPTIMUM H</b>	
	<ul style="list-style-type: none"> <li>• Heart shaped hard aluminum anodized ergonomic handrim with built in thumb groove</li> <li>• May help decrease symptoms of carpal tunnel or other overuse injuries</li> </ul>
<b>ASSEMBLY POSITION OF HANDRIM (FOR ALUMINUM ANODIZED, NEWTON AIRGRIP)</b>	
<b>NARROW HANDRIM POSITION WITH CUT</b>	
	<ul style="list-style-type: none"> <li>• Custom more narrow position with decreased space between handrim and wheel</li> <li>• Decreases overall width of wheelchair for doorway access</li> <li>• May be more comfortable for grip for person using the wheelchair</li> </ul>
<b>SUPER NARROW HANDRIM</b>	
	<ul style="list-style-type: none"> <li>• Custom most narrow position with very minimal space between handrim and wheel</li> <li>• Decreases overall width of wheelchair to its most narrow with still having a handrim attached for doorway access</li> <li>• Will not allow fingers/hands to get stuck between handrim and wheel</li> <li>• May be appropriate for pediatric client who grabs tires, can help get them used to handrim at the same time</li> </ul>
<b>THUMB PIECE SELECTION FOR SURGE, SURGE LT, AND NATURAL FIT</b>	
<b>STANDARD GRIP</b>	
	<ul style="list-style-type: none"> <li>• Has a powder coating and no friction</li> <li>• Enhances ergonomic position of hand combined with handrim to potentially decrease symptoms of overuse injuries and carpal tunnel syndrome</li> </ul>
<b>SUPER GRIP</b>	
	<ul style="list-style-type: none"> <li>• Has an advanced copolymer coating with high friction surface</li> <li>• Enhances ergonomic position of hand combined with handrim to potentially decrease symptoms of overuse injuries and carpal tunnel syndrome</li> </ul>



<b>AXLE</b>	
<b>PERMANENT AXLE</b>	<ul style="list-style-type: none"> <li>Indicated because the wheelchair will not need to be disassembled</li> </ul>
<b>QUAD RELEASE AXLE</b>	<ul style="list-style-type: none"> <li>Limited hand function may impair ability to release the standard push button on quick release</li> <li>This small circular lever will allow individual to disengage axle</li> </ul>
<b>AMPUTEE AXLE PLATE</b>	<ul style="list-style-type: none"> <li>When the rear axle needs to be placed more posterior than standard most rearward most often when not enough weight is available onto the front of the wheelchair.</li> </ul>
<b>WHEEL LOCK</b>	
<b>6" REMOVABLE EXTENSION HANDLE FOR PUSH TO LOCK</b>	<ul style="list-style-type: none"> <li>Will allow for better access to reach wheel locks</li> <li>Decreased strength in UE requires the longer lever arm for easier engagement and disengagement of lock</li> <li>Often appropriate for geriatrics and pediatrics</li> </ul>
<b>ALUMINUM PUSH TO LOCK WITH EXTENSION</b>	<ul style="list-style-type: none"> <li>Will allow for better access to reach wheel locks</li> </ul>
<b>NEWTON GRADE AID PUSH TO LOCK</b>	<ul style="list-style-type: none"> <li>Integrated anti-roll back to assist with up a graded surface without having to always maintain hand contact with rear wheel</li> </ul>
<b>6" REMOVABLE EXTENSION HANDLE FOR PULL TO LOCK AND GRADE AID</b>	<ul style="list-style-type: none"> <li>Will allow for better access to reach wheel locks</li> <li>Decreased strength in UE requires the longer lever arm for easier engagement and disengagement of lock</li> </ul>
<b>SCISSORS LOCK</b>	<ul style="list-style-type: none"> <li>Remains under the seat rail and out of the way of hands to prevent potential injuries to fingers from propulsion strokes</li> </ul>
<b>ATTENDANT LOCK</b>	<ul style="list-style-type: none"> <li>Wheelchair user is unable to independently or safely engage wheel locks</li> <li>User prematurely disengages wheel locks prior to transfers</li> </ul>
<b>UNILATERAL WHEEL LOCK PULL TO LOCK</b>	<ul style="list-style-type: none"> <li>Only one UE is able to be used to engage wheel lock, due to weakness, paralysis or limb loss</li> </ul>
<b>ARMREST OPTIONS</b>	
<b>HEIGHT ADJUSTABLE FLIP BACK ARMREST</b>	<ul style="list-style-type: none"> <li>Height adjustment to ensure proper positioning for UE and shoulder while seated in the wheelchair</li> <li>Flip back to allow for lateral transfers, or use of transfer board</li> <li>Allow repositioning for skin protection and sitting tolerance</li> </ul>
<b>10" DESK LENGTH ARMPAD</b>	<ul style="list-style-type: none"> <li>Allows for getting closer access to surfaces for ADLs</li> </ul>
<b>14" FULL LENGTH ARMPAD</b>	<ul style="list-style-type: none"> <li>Pushing self to standing for transfers</li> <li>Safe transfers into wheelchair to have a surface to hold onto</li> </ul>

## ARMREST OPTIONS

### HEIGHT ADJUSTABLE T ARMREST

- Height adjustment to ensure proper positioning for UE and shoulder while seated in the wheelchair
- T Armrest for most stability for push up with transfers or repositioning

### 10" DESK LENGTH ARMPAD

- Allows for getting closer access to surfaces for ADLs

### 14" FULL LENGTH ARMPAD

- Pushing self to standing for transfers
- Safe transfers into wheelchair to have a surface to hold onto

## HEIGHT ADJUSTABLE SWING AWAY ARMREST

### TUBULAR ARMREST WITHOUT SIDE GUARD

- Lightweight swingaway armrest for support when needed for transfers or repositioning

### SHORT PAD

- Allows for getting closer access to surfaces for ADLs

### LONG PAD

- Allows for getting closer access to surfaces for ADLs

### FLAT ARMPAD WITHOUT SIDE GUARD

- Lightweight swingaway armrest for support when needed for transfers or repositioning
- Flat pad for larger surface area for resting UE or for repositioning

### 10" DESK LENGTH

- Allows for getting closer access to surfaces for ADLs

### 14" FULL LENGTH

- Allows for getting closer access to surfaces for ADLs

### FLAT ARMPAD WITH SIDE GUARD

- Lightweight swingaway armrest for support when needed for transfers or repositioning
- Side guard for protection LEs including skin from moisture from wheels
- Maintaining midline position

### 10" DESK LENGTH

- Allows for getting closer access to surfaces for ADLs

### 14" FULL LENGTH

- Allows for getting closer access to surfaces for ADLs

## HEIGHT ADJUSTABLE SWING AWAY ARMREST

### 14" FULL LENGTH ARMPAD - GEL OVATION (PAIR)

- Gel armpad may provide pressure relief for pain
- Required for skin protection on elbows and forearms

## SIDE GUARDS

### PLASTIC SIDE GUARDS (REMOVABLE)

- Protection to LEs including skin from moisture from wheels
- Maintaining midline position
- Can remove for transfers or other functional activities

### CARBON FIBER SIDE GUARDS (FIXED)

- Extreme lightweight
- Protection to LEs including skin from moisture from wheels
- Maintaining midline position
- Always maintains position regardless of functional tasks or wheelchair use

### CARBON FIBER SIDE GUARDS (REMOVABLE)

- Extreme lightweight
- Protection to LEs including skin from moisture from wheels
- Maintaining midline position

### PLASTIC FENDER SIDE GUARDS - STRAIGHT BRACKET (REMOVABLE)

- Follows the contour of the wheel
- Covers the rear wheel to prevent any moisture or dirt to be transferred from the tire to the user

### PLASTIC FENDER SIDE GUARDS - OFFSET BRACKET (REMOVABLE)

- Follows the contour of the wheel
- Covers the rear wheel to prevent any moisture or dirt to be transferred from the tire to the user
- Offset bracket allow for guards to be mounted more midline than standard orientation, getting it closer to user

### CARBON FIBER FENDER SIDE GUARDS - (REMOVABLE)

- Lightest weight material
- Follows the contour of the wheel
- Covers the rear wheel to prevent any moisture or dirt to be transferred from the tire to the user

## POSITIONING BELT

### HARDWARE ATTACHMENT FOR 2 EXTRA POINTS (1 PAIR)

- Additional hardware required for mounting pelvic belt

### VELCRO ADJUSTABLE BELT

- Pelvic positioning belt to support proper sitting position in wheelchair
- Velcro attachment for user ease, does not require much hand function

### AUTO BUCKLE

- Pelvic positioning belt to support proper sitting position in wheelchair
- Auto buckle for user ease

### BODYPOINT HIP BELT 2 POINT (NON-PADDED)

- Pelvic positioning belt to support proper sitting position in wheelchair
- 2 point allows for adjustment for proper angle of pull for best positioning

<b>POSITIONING BELT</b>	
<b>BODYPOINT HIP BELT 2 POINT (PADDED)</b>	
	<ul style="list-style-type: none"> <li>• Pelvic positioning belt to support proper sitting position in wheelchair</li> <li>• 2 point allows for adjustment for proper angle of pull for best positioning</li> <li>• Padding allows for tight fit over bony prominences without risk of skin irritation or injury</li> </ul>
<b>BODYPOINT HIP BELT 4 POINT (PADDED)</b>	
	<ul style="list-style-type: none"> <li>• Pelvic positioning belt to support proper sitting position in wheelchair</li> <li>• 4 point allows for more control and adjustment for proper angle of pull for best positioning, quite often for someone with higher muscle tone</li> <li>• Padding allows for tight fit over bony prominences without risk of skin irritation or injury</li> </ul>
<b>BODYPOINT EVOFLEX</b>	
	<ul style="list-style-type: none"> <li>• Pelvic positioning belt to support proper sitting position in wheelchair</li> <li>• Form of material with functional implications to allow for movement of LEs without pelvic movement</li> <li>• Usually mounted at 90 degrees</li> </ul>
<b>ACCESSORIES</b>	
<b>ANTI-TIPPERS</b>	
	<ul style="list-style-type: none"> <li>• Mount directly off the frame</li> <li>• Prevent tipping over backwards when used and installed correctly</li> </ul>
<b>SWING-AWAY ANTI-TIPPER</b>	
	<ul style="list-style-type: none"> <li>• Can be used unilaterally on standard weight capacity wheelchairs, or bilaterally on HD wheelchair models</li> <li>• Allow user in wheelchair to independently swing tipper under the chair for transfers or traversing curbs</li> <li>• Allow caregiver in wheelchair to independently swing tipper under the chair for transfers or traversing curbs</li> <li>• Has built in tip-assist</li> </ul>
<b>TIP ASSIST</b>	
	<ul style="list-style-type: none"> <li>• Mounts directly into the frame</li> <li>• Will allow caregiver to press down with foot to tip wheelchair user over a small obstacle or up a curb</li> </ul>
<b>CANE AND CRUTCH HOLDER</b>	
	<ul style="list-style-type: none"> <li>• Mounts onto back of wheelchair to hold a cane or pair of crutches</li> </ul>
<b>OXYGEN TANK HOLDER</b>	
	<ul style="list-style-type: none"> <li>• Mounts onto back of wheelchair to hold an oxygen tank</li> </ul>
<b>SPOKE GUARDS</b>	
	<ul style="list-style-type: none"> <li>• Plastic guard that clips to spokes in 4 places to hold in place</li> <li>• Blocks spokes and prevents fingers or other objects from being caught in spokes</li> </ul>

## REFERENCES:

- 1- DiGiovine, C., Rosen, L., Berner, T., Betz, K., Roesler, T., & Schmeler, M. (2022). RESNA position on the application of ultralight manual wheelchairs (Position Paper).
- 2- Joseph Ott, Holly Wilson-Jene, Alicia Koontz & Jonathan Pearlman (2022) Evaluation of rolling resistance in manual wheelchair wheels and casters using drum-based testing, Disability and Rehabilitation: Assistive Technology, 17:6, 719-730, DOI: 10.1080/17483107.2020.1815088
- 3- Paralyzed Veterans of America Consortium for Spinal Cord Medicine (PVACSCM). (2005). Preservation of upper limb function following spinal cord injury: A clinical practice guideline for health-care professionals. The Journal of Spinal Cord Medicine, 28(5), 433-470.