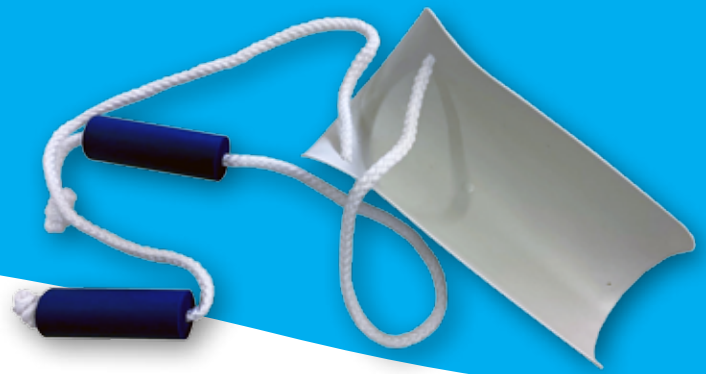


ACTIVITIES OF DAILY LIVING EQUIPMENT



INTRODUCTION

There is a broad range of adaptive equipment available to assist the performance of activities of daily living (ADL) after SCI. Some equipment is task-specific while other devices may be used for a variety of tasks.

General aids are available to compensate for limited hand function. Examples include universal cuffs and adapted straps, foam tubing (varying diameters), easy hold silicone adaptive aids, splint materials for custom adaptations, and adhesive dycem strips or coban for wrapping around objects. Often, these items are combined with wrist stabilization splints. You can learn more about wrist stabilization splints in the Upper Extremity Chapter of this manual.

FEEDING AND GROOMING

Feeding and grooming activities are typically completed at a tabletop with adaptive equipment compensating for limits in fine motor coordination and upper extremity strength. A bedside table or a lap tray may provide a more accessible surface than a tabletop and a non-slip surface, such as dycem, may be needed to secure items when they are being used.

Some devices are used to stabilize the arm when strength is not sufficient for reaching against gravity. A Mobile Arm Support or overhead sling may be used as a training device or as a long term piece of adaptive equipment. These devices may be secured to a wheelchair or tabletop. You can learn more about these devices in the Upper Extremity Chapter of this manual.

Equipment for Feeding and Grooming

Feeders - These devices sit on the tabletop and use a long arm to transport food from a bowl to an individual's mouth. Mechanical and robotic options are available.

Scoop Dishes/Bowls and Plate Guards - Provide a ring around the surface of the plate/bowl to act as a backstop for scooping.

Adapted Utensils - Utensils are available with

various modifications for grip such as built up handles, extended handles, bent handles, and finger loops.

Spillproof Cups - some come with handles to allow for easier drinking, some like the Kennedy cup come with straws.

Long Straw - Long straws allow the user to drink without bringing the cup to the mouth.

Universal Cuffs - Adapted straps that fasten around the palm to secure a utensil such as a fork or a toothbrush for self-care tasks. Universal Cuffs (U-Cuffs) are often combined with a wrist stabilization splint. Wider item-holders, silicone straps, and device-specific straps, such as for a razor, are also available.

Rocker Knives - Facilitate cutting through a rocking motion (versus a sawing motion). Adapted grips including a C grip and a T-bar grip are available.

Automatic Dispensers - Dispensers for soap, lotion, shampoo, toothpaste are activated by motion or button.

Self-leveling Utensils - Maintain a level surface in the presence of unsteady movements or tremors.

Long Handled Brush - extended handle allows hair brushing without raising the arm.

Hair Dryer Stand - stable hair dryer to allow both hands for hair management tasks.

Nail Clipper - One handed clippers allow cutting without bimanual use. A suction plate for a nail clipper stabilizes the clipper for individuals with limited dexterity.

Floss Pick - Holds dental floss so the teeth can be flossed with less dexterity.

Makeup Aids - There are a variety of devices to facilitate independent makeup application, such as a safe grip mascara wand holder, ring grip mascara wand holder, and nail polish holder.

DRESSING

Pocket Dresser/Button Hook/Zipper Pull -

Used to manage buttons and zippers. Different variations include a pocket knife format, built up grips and U-Cuffs

Zipper Loops - affix to zippers for easier pulling.

Dressing Stick - available in different lengths to extend reach to push and pull clothing.

Reacher - Provides extended grip via a trigger system. Can be used for tasks such as obtaining items from shelves, clothing from closets, and pulling pants over feet. Grip strength, length and type of closure vary. Options with wrist extension activation are available for individuals with limited hand function.

Adapted Laces - Elastic, shoe button, coiler laces, Pull Cord, Lock Laces

Shoe Funnel - Stabilizes the back of the shoe to don.

Shoe Horn - Stabilizes the back of the shoe to don.

Sock Aide - various types are available to pull the socks over the feet.

Adapted Clothing

Rather than use some of the DME listed above, some clothes have or can be adapted to help patients dress themselves from a seated position or allow those with deficits in hand strength or dexterity be able to secure the clothing independently. While once considered a niche market, many mainstream companies including Nike, Tommy Hilfiger, and Target now all sell adaptive clothing lines.

Tommy Hilfiger Adaptive Clothing

https://usa.tommy.com/en/tommy-adaptive?utm_medium=social&utm_source=3491815&utm_campaign=21742417&cid=social:3491815:21742417:230275524:106554094

IZ Adaptive These are more 'non-standard' clothing frames, those who are primarily in a seated position including non-bunching/shorter in back to help avoid pressure sores/discomfort. They are also adjusted for dexterity issues with buttons/snaps/zippers, other. <https://izadaptive.com>

MagnaReady sells dress clothing using magnets to aid in dressing ease including adapted ties and pants. <https://www.magnaready.com>

NBZ Clothing "No Buttons or Zippers".

This company offers custom alterations as well. <https://nbzapparel.com>

Nike makes a line of shoes called FlyeEase which come in multiple different styles to allow easier donning and doffing. Some styles include a hands-free option, options with zip off backs to accommodate an AFO, and various types of lace-free designs. <https://www.nike.com/flyease>

Friendly Shoes also makes fashionable shoes that can be zipped open to allow for easier donning and doffing. <https://friendlyshoes.com/>

Fashion For All (FFORA) sells fashionable wheelchair accessories including bags, cupholders, purses, etc. <https://liveffora.com/>

Myself Belts sells one handed closure belts for both kids and adults. <https://www.myselfbelts.com/>

BATHING AND TOILETING

Having the proper equipment for bathing and toileting is essential for a person with SCI/D to be as independent as possible in their daily life. There are many factors that impact which piece of equipment is best for each individual with SCI/D. One primary factor is the accessibility of the bathroom space. Some equipment can only be used when structural modifications are present. See the structural modifications section of this manual for more information. For all equipment the durability should be considered, including considering the type of materials that will be getting wet during showering and be at risk for mildew, breakdown, and rust.

User factors such as level of upper extremity function, trunk balance, transfer technique, presence of spasms, or difficulty with orthostatic hypotension or autonomic dysreflexia will impact which piece of equipment works best for each individual. Caregivers can also provide valuable input during the DME selection process.

When prescribing bathroom equipment, the health care professional must always consider this population's need for maintenance of skin integrity. Pressure relief must be performed more frequently on bathroom DME to prevent pressure injuries and the method of pressure relief should be practiced when trialing equipment. Padding is always recommended for patients with spinal cord injury with decreased or absent sensation to minimize the risk of sustaining a

FEEDING AND GROOMING



Scoop Dishes/Bowls and Plate Guards

Rocker Knife



Adapted Utensils

Universal Cuffs



Dressing Stick



Reacher

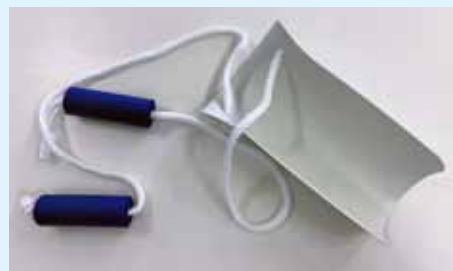


Shoe Horn



Universal Cuffs

Therafin Electric Razor Cuff
www.therafin.com/catalogsearch/result/?q=electric+razor



Sock Aide

pressure injury. If a shower chair or commode does not provide enough padding to sufficiently protect skin integrity an overlay may be required.

Bariatric Considerations - The weight capacity should always be considered when selecting bathroom equipment. Please note that bariatric options are available for most types of equipment.

Adult DME Options

Rolling Commode Shower Chairs - Rolling commode shower chairs offer the individual the ability to complete bowel training or toileting and showers using one piece of equipment. Rolling shower/commode chairs decrease the number of transfers necessary to complete bathing and toileting, which decreases strain on the shoulders and minimizes the risk for skin breakdown. A roll-in shower must be present for a rolling shower chair to be used for bathing. Bowel programs can be completed over the toilet or using a collection pan.

Common Features:

- **Tilt-in-space** - Provides pressure relief, postural assistance, and prevention of Orthostatic Hypotension. Tilt-in-space chairs may not fit over commodes for bowel program completion and may not offer self-propelling wheels.
- **Recline** - Opens back angle for trunk balance or to accommodate hip range of motion limitations.
- **Pelvic Belt** - prevents falls and skin shearing.
- **Seat Cutout** - Selection of location direction facilitates patient/caregiver access.
- **Laterals** - Provide trunk support and can correct/compensate for postural asymmetries.
- **Chest Strap** - Provides trunk support.
- **Headrest** - Supports the head during tilt.
- **Brakes** - The chair must have effective brakes to prevent falls during transfers. Caster brakes are options that may be needed.
- **Arm Troughs** - Provide arm support to prevent shoulder pain and sublux.
- **Wheel Size** - 4 caster wheels allow for tight turns which is important in tight hallways or narrow doorways. Larger back wheels allow self-propulsion for individuals who are able to push the chair.

- **Removable/Swing Away Arms** - Allow lateral transfers.
- **Padding** - Padding is essential to prevent pressure injuries. Waterfall padding extends over the border of the chair frame at the cutouts and offers additional skin protection and is less likely to wear.
- **Collection Pan** - Provides a method to catch waste if the bowel program is not performed over the toilet.
- **Legrests/Footrests with Heel Loops or Calf Straps** - Keep the lower extremities supported during bathing and prevent the legs from sliding off the footplates when spasticity is present.

Commode Chair - Standard bedside commodes often do not meet the needs of people with SCI/D because the inability to move armrests for transfers, the absence of trunk supports, and concerns about pressure injuries.

Commode/Tub/Shower Slider Chair - Slider chairs have a chair on caster wheels that hooks on a sliding frame to allow the chair to slide into a tub or shower. The chair can be used over the toilet to complete a bowel program. Tilt options are available. Caster chairs offer maneuverability in very tight spaces and may prevent the need for structural modifications. Because they use caster wheels they cannot be pushed by the user and require the assistance of a caregiver.

Bath Lift - A Bath Lift is a single-button operation system that allows the users to descend into their bathtub and keep the backrest upright or to recline for more comfort. This is appropriate for users who can transfer but have difficulty lower into and lifting out of the tub's bottom.

Padded Tub Bench - A tub bench is a shower chair that extends over the edge of the tub to provide a more stable base and decrease the lift needed for transfers. Transfer benches include a back and armrest. Additional options include a commode cutout and suction cup legs for extra stability. Non-padded tub transfer benches are available but should be used with caution due to the increased risk of pressure injury.

Shower Boats - shower boats are an option for people who can not safely sit due to wounds, orthostatic hypotension, or skin/wound issues. Shower boats allow people to shower in a laying down position.

BATHING AND TOILETING



Rolling Shower Commode Chair



Bariatric Rolling Shower Commode Chair



Padded Tub Bench with Commode Cutout



Padded Tub Bench



Shower Boat



Shower Boat



They require a very large shower space often not found in the traditional home bathroom environment.

Padded Drop Arm Commode - A padded drop arm commode has arms that drop down to allow transfers and then can be raised for stability. These are typically general use items and not customizable.

Specialty Raised Toilet Seats/Commode Chairs

- Many specialty padded seats allow customizable openings for commode cutouts, enhanced padding, and selection of backrest and armrest configuration. Collection pans are often available for these seats.



Overlays - Foam, gel, and air overlays are available to provide pressure distribution on toilet and shower surfaces.

Bidets and Bidet Toilet Seats - Provide hygiene via a water spray to reduce the need for

a caregiver's assistance. Full units, toilet seats, and smart options are available.

Pediatric DME Options

Low Back Toilet Chair - a minimal support back used over a standard toilet designed to give support through the use of a positioning belt. It is often used in combination with a padded ring reducer.

Pediatric Commode Chair - a commode with smaller toilet opening and lower floor to seat height which better accommodates pediatric sizes. A chest strap is available as an accessory for those requiring additional trunk support.

Specialty Toileting System - a padded system available in multiple sizes and can be mounted over a standard toilet or used in combination with a mobile base, tilting base or portable base. The toilet opening is smaller for pediatric clients with a myriad of accessory supports, including trunk, pelvic, feet and a tray option.

Other Adaptive Equipment

Catheters - Completing a self-catheterization program independently can greatly impact quality of life for an individual with SCI. Many new catheter options are available that make it easier for people with SCI to catheterize independently. A urologist, a nurse, an occupational therapist, and a physiatrist can help you find the best catheter options that can be used with or without adaptive equipment for independence.

Catheter Insertion - A adapted grip clip used to hold a catheter for insertion.

Catheterization Mirror - Adjustable mirror which has a stable base. Sometimes includes a leg spreader bar. Facilitates vision and position for female catheterization especially during the learning process.

Penis Holder - Holds the penis in position while a catheter is inserted.

Pants Holder - Holds the pants out of the way while seated in a wheelchair for cathing.

Asta-Cath - Provides a guide for female catheter insertion.

Labia Spreader - Spreads the labia for female catheter insertion.

Electronic Leg Bag Emptier - Switch activated control of leg bag emptying mechanism.

Suppository Insertion - Spring loaded with extended handle with U-cuff to aide inserting a suppository.

Digital Stimulator - Used to stimulate the rectum. Also called a dill stick.

Toilet Aide - Used to extend reach and hold toilet paper for hygiene.

Skin Inspection Mirror - A skin inspection mirror can be used to check the skin for signs of breakdown when bathing. It can also be used to view the perianal area and toilet during bowel care to ensure cleanliness and monitor bowel output.

Wash Mitt - Allows the hand to be inserted into a washcloth mitt for independent bathing.

Soap/Shampoo Dispenser - Pump and automated/motion activated options are available.



Catheterization Mirror



Digital Stimulator



Toilet Aide

Long Handled Sponge - Allows increased reach for bathing. Adapted handles may be needed due to reduced grip strength.

Hand Held Shower - Used to direct water to the desired area during bathing.

3D PRINTING

3D printing offers the opportunity for the development of readily available and potentially customized technology solutions from splints to cupholders. Many patterns are available online and training is available

to pattern design and adaptation. Some examples of things that have been printed: pen holders, wheelchair cup holder, enlarged handle with hilt for utensils, mouth stick, pants holder for catheterization, toothpaste tube squeezer, medication bottle holder, zipper helpers, and more.

Some examples of online design repositories and training include:

<https://www.thingiverse.com>

<https://cults3d.com/en>

<https://www.tinkercad.com>

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