Northeast Rehabilitation Health Network

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Adaptive Equipment: An Illustrated Guide

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Purpose

For people who have difficulty performing daily tasks (e.g. feeding, washing or dressing) secondary to physical impairment, adaptive equipment may enable independence. The following illustrated monograph is written to provide an introduction to examples of such adaptive devices.

Contents

Hygiene	Tooth Brushing (limited hand strength) Upper body washing The Universal Cuff
Dressing	Reaching assist Putting on Socks without bending Use of a dressing stick Zippering/buttoning with poor hand dexterity
Feeding	Scooping food with one hand Cutting food with one hand Managing a feeding utensil with poor hand strength
Bathing	Tub and Shower Adaptation

Hygiene

Brush Holder

Wash Mitt

Using only one hand, a scrub brush with suction cups can be adhered to a sink surface to clean fingernails or to enable cleaning of dentures.

A wash mitt fastens with Velcro® around the wrist. It can be used when hand strength is inadequate for grasp of a washcloth.

Universal Cuff (palmar view)

Universal Cuff (back of hand)

The universal cuff is used to hold utensils or devices in a hand that has little to no grip ability. It is called "universal" cuff for the reason that it can be used with almost any object that can be slid into the palmar piece of the device. Such objects include (but are not limited to) a toothbrush, eating utensils and writing implements.

The device generally needs to be set up for the user, however after the utensil is in place and the device is strapped into the individual the device can be used independently. As illustrated here, a toothbrush can easily be slid into the device which is strapped over the back of the hand.

Dressing

The following devices are products developed for individuals who can not or should not bend over to dress the lower portion of their body. This would include individuals with significantly compromised sitting balance, some of those with back pain, or any other condition in which excessive bending is unsafe or aggravates pain.

Sock Aid
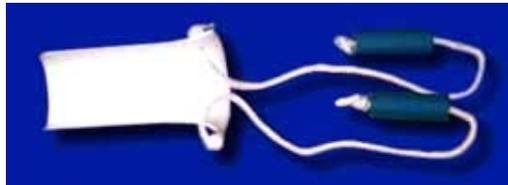
The sock aid assists the donning of socks or stockings without requiring either bending over to reach the feet or lifting the legs to the hands.

While holding the device between the legs stretch the sock over the device until the sock meets the base knots of the rope pulling device. The heel of the sock should slide along the underside of the device. The "Sock Aid" is then placed on the ground while holding onto pull ropes with each hand. The toes are then pointed and placed into the "mouth" of the device. Traction is then placed on the ropes while attempting to keep the toes pointed. The device should slide up the foot and past the heel while pulling the sock or stocking onto the foot. Note: Most sock aids work best if powder (Talcum or Baby powder) is sprinkled on inside of the device to assist with a smooth slide.

Dressing Stick

The dressing stick is primarily used in putting on pants. It is an extended reach of the hand that will hook onto the pant or underwear (as shown in the leftmost illustration) . The leg is placed into the leg opening using the hook end of the stick. Once situated accurately, the pant is pulled up the leg until it can be easily reached.

Long Handle Reacher

The long handle reacher can be used in any instance that an extended reach is required (as shown in these pictures). The reacher can easily be used to pick up objects from the ground as well as reaching for objects above shoulder level.

Long Handle Shoe Horn

The long handle shoe horn is little different from its predecessor the regular shoe horn, as illustrated. The only difference is that this device has a longer

handle so that one can use it while maintaining an upright or near upright position when donning their shoes.

One helpful accessory recommended for use with the long handle shoe horn is elastic shoe lace. The shoe laces are laced once and tied. Because the are elastic, they expand as the foot enters the shoe. Once the foot is in the shoe the lace then contracts snugly against the foot. Elastic shoe laces (in most cases) are a prerequisite to successful independent donning of lace shoes when using the long handle shoe horn. This type of lacing is very helpful for those with poor finger manipulation who have difficulty tying their shoes.

Zipper Pull

The zipper pull is used with individuals with poor finger grasp and have great difficulty zipping up clothing. The small hook at the end of the zipper pull is easily placed through the zipper hole; at which time the zipper can easily be pulled up or down.

Button Hook

The button hook is a firm wire loop which is fastened to a wooden handle. It is used for fastening buttons by individuals who have either poor manipulation ability with both hands, or by those who have the use of only one hand. In this illustration, the sequence of device use is illustrated from left to right. First, the wire portion is passed through the button hole. The button is then hooked. The hooked button is then pulled through the button hole and released.

(Left to Right) - Universal Cuff, Zipper Pull, Button Hook

Feeding

Adapted Utensils

Adaptive eating utensils:

- Built-up handles can accommodate deficits in hand strength and dexterity. Weighted handles may reduce the effects of tremor while eating. A weight worn on the wrist may serve the same purpose
- A stand up mirror can be used for visual feedback regarding food pocketing (i.e.- food getting stuck in the cheek when there is facial weakness) or drooling.
- An adapted cup prevents spilling of liquid.
- A plate guard fits around any plate so that food may be scooped along the side for effective placement of food on the utensil when using a one-handed technique.

Dycem® is a commercial material that is flexible and washable. It is placed between the table surface and the dish to prevent sliding of the dish. This scoop plate aides in the tidy placement of food on a utensil when a one-handed technique is used.

Tubigrip® (cut to size and placed on common toothbrush) or a toothbrush with a built-up handle compensates for deficits in hand strength and dexterity.

Scooping food using a plate guard is demonstrated here. (A scoop plate is

For cutting food using a one-handed technique, a rocker knife is moved in a rocking motion - not a "sawing" motion - break food in to bite-sized pieces. used the same way.) A weight worn on the wrist may reduce the effects of tremor while eating.

Bathing

Adapted Shower

A tub seat minimizes risk of falls in the tub when balance is compromised. A hand-held shower allows control of the shower stream while seated.

Tub Seat and Hand Brush with Built-up Grip

Grab bars are not necessary with use of a tub seat, but if standing in a tub is appropriate, such a bar will provide steadying assist. It it imperative for safety that grab bars be bolted into wall studs/supports.

Sources of Equipment Depicted in This Monograph:

- Alimed, Inc., 297 High Street, P.O. Box 9135, Dedham, MA 02026-9135 Phone: 1-617-329-2900.
- Sammons Preston, Inc., P.O. Box 5071, Bolingbrook, IL 60440-5071. Phone: 1-800-323-5547.

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