# SPINAL CORD MEDICINE

HANDBOOK FOR PATIENT AND FAMILY



**SELF CARE & ACTIVITIES OF DAILY LIVING** 



# Frazier Rehab Institute

A service of Jewish Hospital & St. Mary's HealthCare

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#### **TABLE OF CONTENTS**

#### Chapter 1 Comprehensive Rehab

Your Spinal Cord Medicine Team After Discharge from the Rehab Hospital You and Your Family are Team Members

## Chapter 2 Anatomy of Spinal Cord, Facts and Figures About Injury

#### Chapter 3 Bowel Care

The Digestive System and Bowel Function Bowel Management Program

# Chapter 4 Bladder Care

The Urinary System Bladder Programs Urinary Tract Infections

## Chapter 5 Skin Care

Risk Factors for Skin Breakdown Stages of Skin Breakdown Treatment Prevention of Skin Breakdown

## **Chapter 6 Medical Concerns**

Autonomic Dysreflexia Deep Vein Thrombus (DVT) Heterotopic Ossification (HO) Orthostatc Hypotension Spasticity

#### **Chapter 7** Lung Care

Normal Anatomy and Physiology Pathology Level of Injury and Respiratory Function Pulmonary Hygiene Warning Signs of Respiratory Problems

## Chapter 8 Cognition, Communication and Swallow

Cognition and Communication Swallowing Preventing Pneumonia Staying Hydrated Quality of Life

#### Chapter 9 Nutrition

Soon After Injury
Once Medically Stable
Ideal Body Weight After Injury
Health Issues and Nutrition
A Primer on Nutrients

#### Chapter 10 Self Care and Activities of Daily Living

Dressing
Bathing
Toileting
Grooming and Hygiene
Feeding

#### Chapter 11 Mobility

Range of Motion Pressure Relief Transfers

#### Chapter 12 Equipment

Wheelchairs and Cushions Splinting Assistive Technology

#### **Chapter 13 Home Modifications**

#### **Chapter 14 Psychological Care**

Grief and Loss How Families Can Help Family Members Struggle Too Caregivers Depression Substance Abuse Brain Injury

## **Chapter 15 Human Sexuality**

For Females For Males Fertility

#### **Chapter 16 Recreation and Wellness**

**Chapter 17 Glossary** 

# Chapter 18 Resource Guide

#### THE PATIENT AND FAMILY HANDBOOK

This Handbook is designed to give you the information to better understand spinal cord injury and the tools needed to manage your health care needs successfully. Information is intended for you and your family because, those who love you, will often be involved in assisting you with your care needs while in the hospital, and in the home environment. As you read through the Handbook, your rehab team at Frazier is available to address your questions and provide you more information pertinent to your needs.

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#### A BRIEF NOTE ABOUT THE FOUNDER OF FRAZIER REHAB INSTITUTE

In her early 20's, Amelia Brown of Louisville sustained a spinal injury in a car accident in the 1940's. With no rehabilitation services in Louisville, she traveled to New York for treatment. After returning to Louisville, she married a physician, Dr. Harry Frazier. Believing Louisville needed its own rehabilitation facility, Mrs. Frazier founded the Frazier Institute of Physical Medicine and Rehabilitation in the early 1950s. Her son, Owsley Brown Frazier, served as Chairman of the Fund Raising Committee for Frazier's new building, named the Frazier Rehab and Neuroscience Center, which opened in 2006.

#### **DISCLAIMER**

The information contained herein is intended to be used in accordance with the treatment plan prescribed by your physician and with the prior approval of your physician. You should not begin using any of the methods described in this publication until you have consulted your physician. Jewish Hospital & St. Mary's HealthCare, Inc. D.B.A. Frazier Rehab Institute, its affiliates, associates, successors and assigns, as well as its trustees, officers, directors, agents and employees are not liable for any damages resulting from the use of this publication.

NOTE: Words italicized in the text below are defined in the Glossary at the end of this Chapter.

# SELF CARE & ACTIVITIES OF DAILY LIVING

After sustaining a spinal cord injury (SCI), you may find it difficult to manage your self-care. In the rehab setting, self-care activities are referred to as *activities of daily living* or ADLs. Some of the most common ADL's are:

- Dressing
- Bathing
- Toileting (including bowel & bladder management)
- Grooming & Hygiene
- Feeding

Your occupational therapist will help you develop skills needed to complete your ADLs as independently as possible. It may be necessary to use adaptive equipment to perform your ADLs. These are devices used to assist with completing activities that you cannot perform as you did prior to the spinal cord injury. The amount of assistance needed to perform ADLs varies from person to person depending on your level of injury, current strength and range of motion, functional abilities, prior health status and any medical complications.

# **UPPER BODY DRESSING (UBD)**

Upper body dressing (UBD) includes putting on and taking off any clothing items from the waist up. For the individual with paraplegia, the upper extremities (arms) are usually functioning properly, and UBD is usually completed without difficulty. However, sitting balance and safety precautions should be addressed before attempting UBD from the edge of the bed or while sitting without support on any surface. If balance is impaired, it may be easier to sit in a wheelchair or standard chair for additional back support. If a brace is worn around the torso, loose garments with front closures are suggested. Additionally, comfortable, wrinkle-resistant clothes allow for easier application and a neat appearance.

Upper body dressing techniques for persons with tetraplegic level of injury depend on several factors including:

- Amount of movement in the arms
- Strength of active arm muscles
- Sitting balance and endurance
- Fine motor coordination/hand strength

A person with a tetraplegic level injury may be able to use adapted techniques/adapted clothing, adaptive equipment and/or splints to increase independence when doing UBD. The occupational therapist on your treatment team will instruct you on the most appropriate techniques to use.

#### LOWER BODY DRESSING (LBD)

Lower body dressing (LBD) includes putting on and taking off any clothing item from the waist down. When dressing the lower body, persons with a paraplegic level of injury might find it helpful to use a combination of alternative techniques and adaptive equipment. The most common position for performing LBD is *circle sitting* or *long sitting* in bed. This allows the person with SCI to reach his/her feet from a large base of support, which increases balance. Some of the most commonly used pieces of adaptive equipment used during dressing include:

- Dressing sticks
- Reachers
- Long-handled shoe horns
- Button hooks
- Velcro®
- Elastic shoe laces
- Sock aids
- Legs straps

LBD is often more difficult for persons a with tetraplegic level of injury and may require the assistance of others. Several factors influence the level of independence a person with tetraplegia that may be achieved with LBD. Those factors include:

- Muscle strength in chest and back
- ROM in knees and hips
- Transfer status
- Bed mobility
- Vital capacity or Lung capacity

#### **BATHING**

In the first few days or weeks following injury, you will most likely sponge bathe from bed. This process may seem complicated if a brace must be worn or if other medical complications are present. Once you are medically stable and cleared for showering by the doctor, your occupational therapist will help you learn to shower safely. If you are a person with a paraplegic level of injury, you may use some of the following to assist with safety and completion of your bath:

- Tub chair/tub bench with a back
- Transfer board
- Hand held shower
- Long handled sponge
- Grab bars
- Thermometer

If you have a tetraplegic level injury, you may use some of the following to assist with safety

and completion of your bath:

- Shower chair (with tilt/recline feature)
- Transfer board or mechanical lift
- Hand held shower
- Universal-cuffs or other splints to assist with holding items
- Wash mitt
- Thermometer

This is just a small sampling of the equipment that may be used to increase independence with bathing. Your occupational therapist will help you develop a bathing program appropriate for your discharge environment.

#### **TOILETING**

Toileting includes the ability to pull down clothing in preparation for elimination, cleaning of the perineal area and pulling clothing up after completion. A person with a paraplegic level of injury is often able to independently complete the process with the correct technique and needed equipment. Examples include:

- Leaning on one elbow to raise a hip and pull down clothing from side to side
- *Drop-arm bedside commode* for safe transfers
- Toilet aid to reach perineal area
- Leg straps to assist lifting legs

Toileting for an individual with a tetraplegic level of injury is usually difficult and unique for each person. Your occupational therapist will develop a specialized toileting program for patients/caregivers for the discharge environment.

#### **GROOMING**

Grooming tasks include brushing teeth, washing face, combing hair, shaving and applying make-up. As with UBD, a person with aparaplegic level of injury usually has full use of their arms and grooming is completed without difficulty from a wheelchair as long as items are in reach. For a person with a tetraplegic level of injury, grooming becomes more difficult and is usually completed in a supported seated position in bed or in a wheelchair. Necessary adaptive equipment and orthotics may include:

- *Universal-cuff* to hold toothbrush, razor, make-up, etc.
- ADL wrist splint to stabilize wrist
- Wash mitt
- Long handled brush
- Lap tray
- Built-up handles

Once you can tolerate a sitting position, your occupational therapist will help you practice techniques to complete these activities as independently as possible.

#### **FEEDING**

Feeding, like upper body dressing and grooming, is usually not difficult for a person with a paraplegic level of injury. This activity, however, can be difficult for a person with a tetraplegic level of injury. Feeding is usually done in a supported seated position in bed with a bedside table or from wheelchair level with a *lap tray*. There are several splints and pieces of adaptive equipment available to assist with this process. These items include:

- *Universal-cuff* to hold utensils
- ADL wrist splint to stabilize wrist
- Non-skid bowl
- Plate guard
- Scoop dish
- Adaptive utensils
- Long straw
- Mobile arm supports

As soon as you are medically stable and able to swallow safely, your occupational therapist will begin working with you to promote self-feeding. This may include strengthening/positioning regimens to increase tolerance for ADL's.

#### KITCHEN AND HOMEMAKING SKILLS

After injury, you may need to try some new ways to cook and clean. You may practice doing these activities from a wheelchair level. There are several types of equipment and modified techniques that may help you become more independent in these areas. Your occupational therapist will work with you to discover what works best to be successful.

## REFERENCES AND RESOURCES

Trombly, C. (1995). <u>Occupational Therapy for Physical Dysfunction (4<sup>th</sup> Ed.)</u>. Baltamore: Williams & Williams.

http://www.spinalcordcenter.org/manual/index.html - Activities of Daily Living

http://www.hmc.psu.edu/rehab/services/spinalcord/therapy/ot.pdf - Activities of Daily Living

http://www.sammonspreston.com - Equipment

http://www.ncmedical.com - Equipment

http://www.gouldsdiscountmedical.com -- Equipment

**GLOSSARY** 

ACTIVITIES OF DAILY LIVING - Basic self-care skills including dressing, bathing,

toileting, grooming & hygiene, feeding.

ADAPTED UTENSILS - Forks, spoons, and knives that are modified to assist with feeding.

ADL SPLINT - Allows user to hold utensils without grasp or wrist control.

BED LADDER - Series of connected loops attached to end of bed to assist with bed

mobility.

BED MOBILITY - Movement of the body in the bed. Includes rolling and transitioning

from sitting edge of bed to lying down.

BEDSIDE COMMODE (BSC): Portable commode with armrests that can be used beside

the bed or over the toilet.

BUILT-UP HANDLES - Larger handles used to assist user with weak grasp to perform

ADL's.

BUTTON HOOKS - Assist user who has poor hand control to fasten buttons.

CIRCLE SITTING - Sitting position in which legs are supported on bed, mat, or floor with

knees bent and out to the side with bottom of feet touching each other.

DRESSING STICKS - Assist user to reach legs without bending for putting on pants.

DROP-ARM BEDSIDE COMMODE - Portable commode with removable armrests that

can be used beside the bed or over the toilet.

ELASTIC SHOE LACES - Shoe laces made out of elastic material, which are laced into

shoes and permanently tied to allow shoes to slip on/off.

ENVIRONMENTAL CONTROL UNITS (ECU): Electronic system that allows user to

control aspects of his/her environment.

FINE MOTOR COORDINATION - Ability to utilize individual finger movements to

complete activities.

GRAB BARS - Mounted onto wall to assist with balance and transfers.

HAND HELD SHOWER (HHS): Showerhead with a hose that allows user to hold shower

in his/her hand to direct the spray. A HHS with the controls on the handle is recommended.

LAP TRAY - Wooded or plastic tray attached to wheelchair to provide support for arms.

LEG STRAPS - Attach to users legs at thigh, knee, and ankle to assist with moving legs during activity.

LONG-HANDLED BRUSH – Hairbrush placed at the end of flexible, extended handle to allow user to reach hair.

LONG-HANDLED SHOE HORNS (LHSH) - Extra-long shoehorn to allow user to keep heel of shoe up without bending over while putting on shoes.

LONG-HANDLED SPONGE (LHS): Bath sponge placed at the end of extended handle to allow user to reach legs and feet without bending.

LONG SITTING- Sitting position in which legs are supported on bed, mat, or floor with knees straight.

LONG STRAW - Extended, reusable straw to allow user independently drink from a cup.

MOBILE ARM SUPPORTS (MAS) - Mounted arm supports that assist user with feeding and other ADL's.

MOUTHSTICK - Allows person with limited arm function to use mouth to access switches.

NON-SKID BOWL - Dish with non-skid material on bottom to provide stability during feeding.

PLATE GUARD - Attaches to rim of plate to allow user to scoop items onto fork/spoon.

RAISED TOILET SEAT (RTS): Attaches to existing toilet to increase the height for easier transfers.

RANGE OF MOTION - Amount of movement possible at a joint when limb is moved.

REACHERS - Allows user to retrieve items out of reach.

SCOOP DISH - Dish with one side sloped upward to allow user to scoop items onto fork/spoon.

SHOWER CHAIR (WITH TILT/RECLINE FEATURE) - Rolling chair with tall back that will recline to assist with balance/safety in a roll-in shower.

SKIN INSPECTION MIRROR - Dual sided mirror attached to extended, flexible handle to assist with inspecting skin for pressure sores.

SOCK AIDS - Allows user to put sock on without bending.

SWIVEL UTENSILS - Utensils attached to moving handle to assist user with getting food into mouth.

TOILET AID - Toilet tissue aid designed to assist user in cleaning perineal area when reaching is difficult.

TRANSFER BOARD (Also known as a sliding board) – Plastic or wooden board used to bridge the gap between two surfaces to make a transfer safer and easier.

TUB CHAIR/TUB BENCH WITH A BACK - Placed into tub or shower to provide a seated surface while bathing.

TUB/SHOWER CHAIR: Fits into tub or shower to provide surface for bathing. A shower chair with a back and seatbelt is recommended for increased stability and balance.

TUB TRANSFER BENCH: Base of bench extends outside tub to make transfers easier. A tub transfer bench with back and seatbelt is recommended for increased balance and stability.

UNIVERSAL-CUFF (U-cuff) – Splint that allows user to hold ADL items without grasp.

VITAL CAPACITY - Maximum amount of air a person can breathe in and breathe out.

WASH MITT - Large mitt that can be used by a person with limited hand function to bathe.