

Skin Care & Pressure Sores

Part 2: Preventing Pressure Sores



For more information, contact your nearest SCI Model System. For a list of SCI Model Systems go to:

<http://www.msctc.org/sci/model-system-centers>

This publication was produced by the SCI Model Systems in collaboration with the University of Washington Model Systems Knowledge Translation Center with funding from the National Institute on Disability and Rehabilitation Research in the U.S. Department of Education, grant no. H133A060070.

What do I need to know?

- Ninety-five percent of all pressure sores are preventable!
- After spinal cord injury, your skin requires daily care and a lot of attention.
- You will need to spend time daily cleaning the skin, keeping it dry (from incontinence or perspiration), checking the skin for problems or changes, moving yourself so the skin will get proper blood supply, and drinking and eating properly so the skin can stay healthy.

How can I avoid getting a pressure sore?

Do regular pressure reliefs (also called weight shifting, pressure redistribution and pressure reduction)

- Pressure relief is moving or lifting yourself to take the pressure off areas that have been under pressure, usually from sitting or lying in one position, so blood can circulate.
- When sitting in your wheelchair you should do pressure reliefs every 15 to 30 minutes for a duration of at least 30 to 90 seconds. Continue to perform pressure reliefs when sitting in a car or on other surfaces (such as on sports equipment). [For more information, read the fact sheet on “How to do Pressure Reliefs (Weight Shifts).”]
- If you are unable to perform a pressure relief independently, instruct the person who helps you with your daily care (family, attendant) to consistently, routinely move you and reduce pressure over areas at risk for pressure sores.
- Your therapist or nurse will teach you how to do pressure reliefs before you leave the hospital. The methods and timing of pressure reliefs will vary somewhat according to your injury and skin tolerance.
- Each person’s skin tolerance is different. Some people may need to relieve pressure very often, others may not need to do it very often—but they still need to do it! Building skin tolerance is a gradual process. [For more information, read the fact sheet on “Building Skin Tolerance for Pressure.”]
- For pressure relief at night, see the recommendations described in “Padding, positioning and turning in bed,” below.

Skin inspection

- Check your skin, or have your attendant or caregiver check your skin, a minimum of twice a day (morning and bedtime).
- Look for changes in skin color (redness or darkening), blisters, bruises, cracked, scraped or dry skin.
- Feel for hardness, swelling or warmth that may signal skin breakdown.
- Closely inspect areas that are at especially high risk for pressure sores because in some areas of the body the bones are close to the surface of the skin; the skin that is directly over bone is at highest risk. [For more information, read the fact sheet on “Areas at High Risk for Developing Pressure Sores.”]:
 - sacrum (lower back)
 - coccyx (tailbone)
 - heel of the foot
 - ischium (the base of the buttocks, “seat bones”)
 - trochanter (hip, from lying on side, something rubbing, or tight clothes)
 - elbow (from leaning on it)
 - knee (from spasms or side-lying with one knee on top of other)
 - ankle (from lying on side)
 - toes and bony areas of foot (from tight-fitting shoes)
 - back of the head
- Inspect areas of skin that are in contact with casts or braces twice daily.
- Use a mirror to inspect skin in hard-to-see areas. Train the person who helps you to carefully and regularly check your skin.
- Pay attention to fingernails and toenails: an ingrown toenail or cut along your nail bed may lead to a sore which can easily be infected.
- As soon as you notice a discolored area, stay off the area until it returns to normal skin color.
- If you suspect skin damage of any kind, read the fact sheet “Skin Care & Pressure Sores, Part 3: Recognizing and Treating Pressure Sores.”

Padding, positioning and turning in bed

- Use a regular schedule of turning at night. Depending on weight and skin tolerance, your turning schedule may vary from every 2 to every 6 hours. Ask your health care provider for advice about a turning schedule. When turning and moving in bed, lift rather than slide across sheets.
- Use pillows and foam pads (not folded towels or blankets) to protect bony areas. No two skin surfaces should rest against each other!
- Unless your doctor tells you to do it, avoid elevating the head of your bed, which can put too much pressure on your buttocks and lower back areas.
- For individuals at the highest risk for pressure sores, your health care provider may prescribe a special mattress, mattress overlay or bed for long-term use.

Keep skin clean and dry

- Bathe daily with mild soap and warm water and rinse and dry thoroughly. Pay particular attention to keeping the genital area and skin folds clean and dry.
- Immediately wash and dry skin and change clothing after any leakage of stool or urine.
- Avoid harsh soaps, skin agents with alcohol, and antibacterial or antimicrobial soaps. Do not use powders. Use a moisturizer that has been approved by your health care provider.

Get a proper seating evaluation at least every two years or sooner if your health or skin condition changes.

- Make sure you have the proper cushion for your wheelchair and your seating tolerance.
- Make sure you have the appropriate wheelchair, one that has been measured specifically for you and is compatible with your level of mobility, activities, work and associated equipment.
- The therapist doing the seating evaluation should place a pressure map above your cushion and under your buttocks to see where

your pressure-sensitive areas are. If at-risk areas on the pressure map are found, then the therapist may try a different cushion; alter the wheelchair seat, back or foot rest; or show you how to relieve pressure on the vulnerable areas by repositioning your body.

- Pressure mapping is an excellent way to visually demonstrate the effectiveness of weight shifts.
- If pressure mapping is unavailable, work with a seating professional and try several different cushions to see what works best for you.

Positioning and transferring

- Sit as erect as possible in your wheelchair. Slouching can damage skin.
- Perform safe transfers. Do not drag or scrape your bottom when moving in and out of your wheelchair.
- If you need help during transfers, make sure the person who is helping you is very well trained to assist.

Clothing, shoes

- Wear properly fitted clothing; avoid thick seams, rivets or bulky pockets and check for folds and wrinkles in areas of pressure.
- Shoes should be 1-2 sizes longer and wider than your pre-injury shoe size to allow for swelling of feet during the day.
- Use shoes with stiffer toes for protection when you bump into objects with your feet.
- Do not carry anything (comb, wallet, etc.) in your back pockets.

Hydration (fluid intake)

- Drink enough water every day to give your body the fluids it needs. Water intake may vary according to your bladder management routine—consult your health care provider for advice about how much water to drink.
- Avoid caffeinated drinks like coffee, tea and soft drinks, which are dehydrating and may trigger bladder spasms.

Nutrition

- Eat a balanced diet that includes adequate protein, fruits and vegetables (fresh if possible). Poor nutrition prevents the body tissue from rebuilding, staying healthy and fighting infection.
- If there is any question about your nutritional status you may ask your doctor to order a blood test to check your protein, albumen, prealbumen, lymphocyte or hemoglobin levels.
- If you have any conditions that may be affected by your nutrition (such as diabetes or hypertension), please consult with your health care provider who may recommend a consultation with a dietician.
- More information about nutrition and spinal cord injury:
 - “Nutritional Guidelines for Individuals with Spinal Cord Injury.” Northwest Regional Spinal Cord Injury System. (2006) <http://sci.washington.edu/info/forums/reports/nutrition.asp>.
 - “Weight Management Following SCI - SCI InfoSheet #8.” Discusses the role of nutrition in an overall weight management program. Spinal Cord Injury Information Network (2005). <http://www.spinalcord.uab.edu/show.asp?durki=21481>

Sun exposure

- Avoid getting sunburned. Some medicines make your skin more sensitive and may cause it to burn more easily. Use sunscreen and limit your time in the sun, or seek shade.

Equipment

- Use prescribed, individualized equipment when seated or lying down. Have a doctor or qualified professional recommend what specialized equipment (seat cushion, mattress, pillows) you need to protect your skin.
- Check wheelchair, mattress, cushions and transfer boards daily for problems. Maintain, at a minimum, the manufacturer’s recommendations for maintenance of all equipment.

Temperature

- Compared to before your injury, you are more susceptible to frostbite in cold weather due to changes in circulation and lack of sensation.
- You are also more susceptible to burns. Avoid contact with hot objects (metal pipes, fireplaces, heater in your home or car, hot water in the shower, microwaved dishes or food items you might want to place on your lap).

Circulation

- Quit smoking!
- Keep as active as possible.

Source

Our health information content is based on research evidence and/or professional consensus and has been reviewed and approved by an editorial team of experts from the SCI Model Systems.

Authorship

This brochure was developed by the SCI Dissemination Committee in collaboration with the University of Washington Model Systems Knowledge Translation Center. Portions of this document were adapted from materials produced by the SCI Model Systems.

The *Skin Care and Pressure Sores* series:

- Part 1: Causes and Risks of Pressure Sores
- Part 2: Preventing Pressure Sores
Supplements:
 - How to do Pressure Reliefs (Weight Shifts)
 - Building Skin Tolerance for Pressure
 - Areas of the Body at High Risk for Pressure Sores
- Part 3: Recognizing and Treating Pressure Sores
Supplements:
 - Stages of Pressure Sores: Illustrations



Spinal Cord Injury Model System

SCIMS | NIDRR

A NIDRR Funded Program