

Skin and Spinal Cord Injury (SCI)

What is skin and why is it so important?

The skin is the largest organ of the body. Its role is to protect the underlying cells against air, water, foreign substances and bacteria. It is sensitive to injury but also has remarkable self-repair capabilities. The skin is made up of layers and has a blood supply. It is of great importance for people with a spinal cord injury (SCI) to make good skin care a number one priority.

People with a SCI are more susceptible to developing problems with their skin because of loss of or diminished sensation, reduced circulation, muscle wasting, muscle spasm and loss of movement.

What happens when skin is damaged?

A Pressure Injury (previously called bed sore, pressure sore or pressure ulcer etc) is a very serious complication of SCI, however in most cases is preventable. These injuries may be caused by a bruise, rash, burn or skin in poor condition such as being too dry or too moist, but are mostly caused by **too much pressure for a prolonged period**.

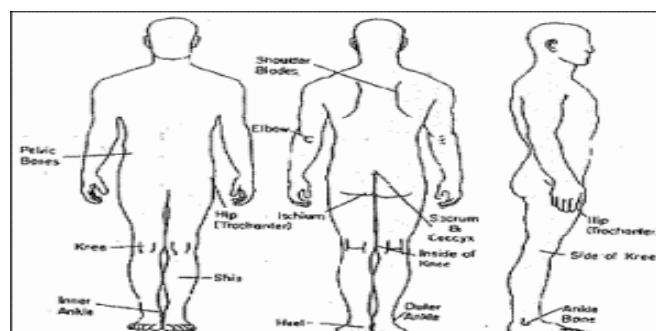
Types of injury:

Friction: When 2 surfaces move against each other i.e. a spasm causes the skin to move against the bed sheets or a foot against the foot plate of the shower chair.

Impact pressure: when great pressure is present for a short time such as in a fall, jolting or bouncing in your wheelchair or with the movement of a car or a hard object against your body.

Shearing: when gravity and friction occur together and the underlying tissues are stretched and pulled in opposite direction to the skin i.e. sliding in the bed

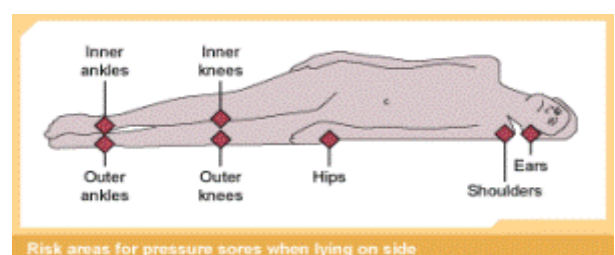
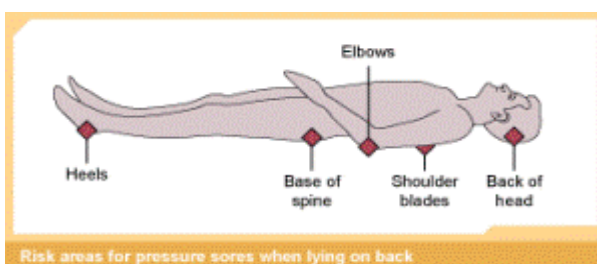
Burns: Burns can occur easily and without your awareness due to loss of sensation. They may be caused by splashes from hot drinks, sitting too close to a heater, seatbelts or hot objects left in the car, wheat bags, hot water bottles, chemicals or tape.



Looking after your skin

- Check skin regularly at least twice a day using a mirror, personal care worker or even using photos to monitor changes.
- Keep skin dry and clean especially after bathing or if any bowel or bladder accidents occur (body fluids can burn your skin)
- Nourish regularly with creams but try to avoid perfumed based products that contain a lot of chemicals
- Relieve pressure as often as you can, whether in your chair or in bed.
- Maintain a good posture.
- Maintain your pressure relieving equipment i.e. Mattresses, Roho and other cushions.
- Be extra careful if you commence using a new piece of equipment or a new pair of shoes or clothing as they may mark your skin.
- Be aware that thick seams, studs, wrinkles or tight clothing may cause a skin injury.
- Maintain a good healthy diet.
- Do not place other materials i.e. sheepskins Blue sheets or towels between your pressure cushion and your body as this reduces the pressure reducing property of the device.
- Always be mindful of the surface you are in contact with at all times checking for damage, hot, cold or hardness.
- Reduce or stop smoking.

Pressure Injury Risk Areas



What to do if changes occur

What are you looking for?

- A red area that does not fade after 20-30 minutes of complete pressure relief
- A discoloured, black or dead looking area of skin
- A scrape or abrasion
- An open sore
- A blister or raised rash

What to do?

- Immediately remove all pressure from the area until the redness has settled. This may mean going to bed for a period of time.
- Do not massage the area.
- Keep area clean and dry.
- Seek advice from the Community Lifestyle Advisors or your medical practitioner. The area may require a dressing and as not all dressings are the same, you may make an area worse with an inappropriate dressing.
- Try to determine a cause i.e. flat cushion, bad transfer, lack of pressure lifts etc; try and resolve the issue to prevent further damage.

How Much Damage?

Press the area lightly in the centre - if it blanches (goes white) and fades when pressure is relieved for 20 to 30 minutes, then it is likely that no damage has occurred.

Feel the area—if you feel swelling, thickening or hardness below the skin, there may be underlying damage. It is useful to know what your skin normally feels like.

Stages of a pressure injury:

Stage 1	If it does not fade when pressure is relieved, does not blanch, or there is a blister or potential skin break, then it is classified as stage 1. You should stay off it at this stage.
Stage 2	If the top most layer of skin is broken and a shallow sore is present.
Stage 3	If the area is open and deep, with involvement of underlying tissues, then it is classified as stage 3
Stage 4	Everything in stage 3 plus the underlying bone - this is very serious. Requires urgent attention.

Pressure injuries can be life threatening; you must take them seriously and seek advice and treatment as soon as possible.

Wounds can become infected and this can spread to the bone (Osteomyelitis) or to the blood (Septicaemia).

May require surgery and prolonged periods in bed and/or hospitalisation.

Your lifestyle will be severely impacted.

Prevention and early intervention is vital.

References and Resources

ParaQuad QLD SPOT Fact Sheet www.health.qld.gov.au/qscis/info_skin_care.asp

ParaQuad NSW www.paraquad.org.au

ParaQuad Tasmania Fact Sheet 11 <http://www.paraquadtas.org.au/files/Fact-sheet-11.pdf>

Paralyzed Veterans of America. Pressure Ulcers: What You Should Know

PQSA Spinal Nurse Advisors 8355 3500

HRC Spinal Outreach Rehabilitation Team 8222 1433