

Skin Care for SCI patients

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What is the skin and what does it do?

The skin is one of the organs of the body - it is by far the largest, as it covers the whole body and has a wide range of jobs to do.

Rather like the wrapping on a fragile parcel, our skin stops the contents – the underlying tissues - from getting damaged.

The skin:

- Protects the underlying tissues
- Distinguishes pain, pressure, discomfort, hot and cold
- Maintains the body's temperature by sweating when you are too hot and shivering when you are cold

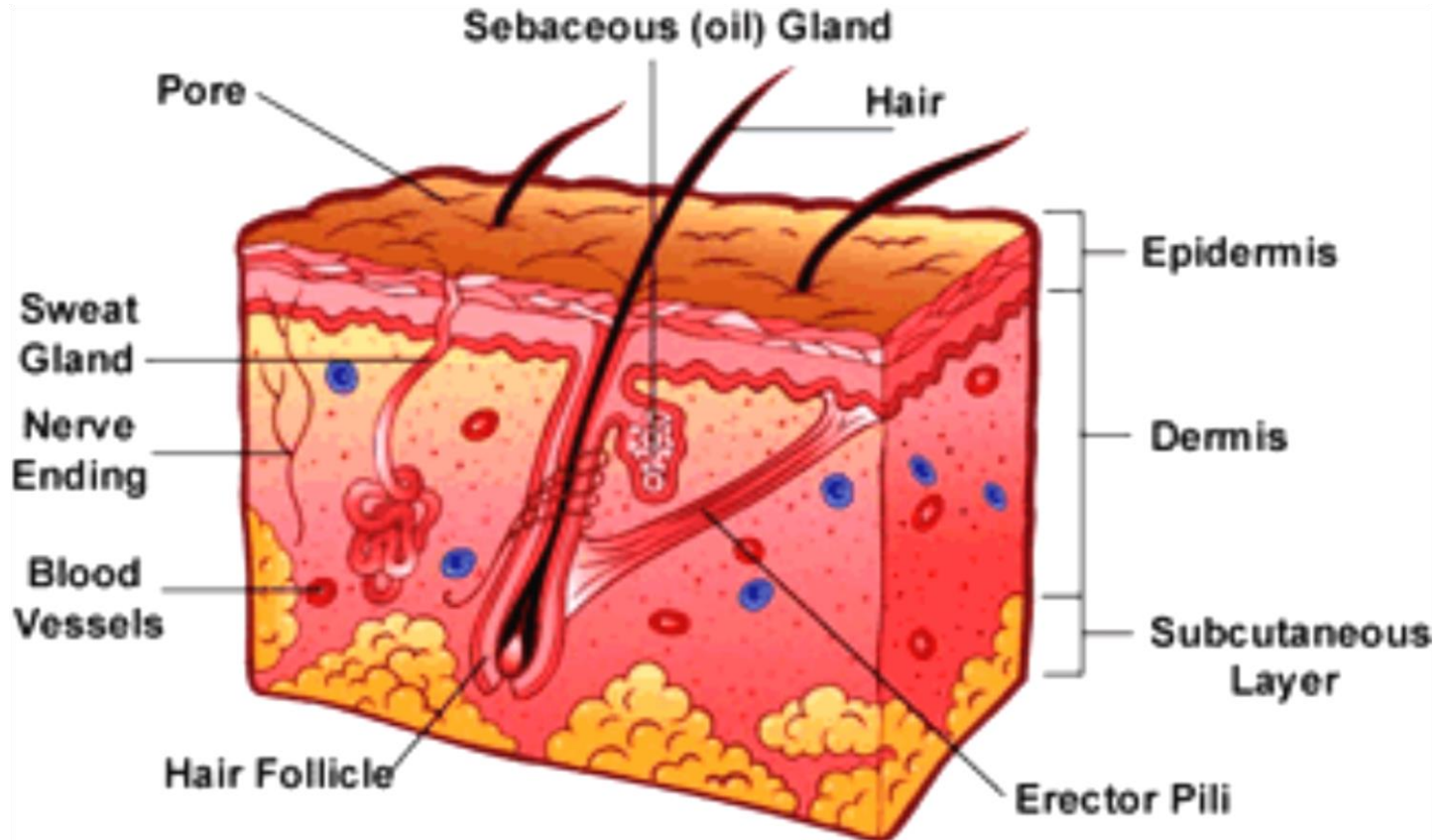
There are millions of micro-organisms living harmlessly on the skin and in the air around us.

- The skin forms a very effective barrier to stop them entering the body. **If the skin is damaged an infection can easily enter the body.**
- The skin is waterproof, but at the same time is able to absorb creams and vitamin D from the sun.
- Additionally, it has the ability to repair itself. If the skin is cut, new skin cells grow and repair the damaged area.

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Layers of skin



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Common causes of pressure ulcers and skin injuries after spinal cord injury:

- **Not doing regular pressure relief**, so incurring prolonged periods of pressure over a bony prominence.
- **Cuts, bumps and bruises** can all turn into pressure ulcers especially if they are over a bony prominence where they are susceptible to pressure.
- **Tight fitting clothing and shoes** – can cause marks and blisters.
- **Splints and new equipment marking** – be aware these should be used for short periods of time to begin with, and gradually increase the time they are used.
- **Shear damage** – be sure to get a good clear lift or slide with every transfer and not drag the skin.
- **Dry skin** is often caused by soaps, be sure to use pH balanced soaps or emollient soap substitutes and remember to moisturise.
- **Hot water bottles/hot gel pads** – be aware these can cause a burn or scald where sensation is reduced or lost.
- **Laptops, tablets and their charger boxes** can get hot and burn the skin.
- **Radiators** – be aware these can cause a burn where sensation is reduced or lost.

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Points to remember

- It is important to maintain good management of your bladder and bowel to prevent urine or faeces leaking onto the skin and causing irritation.
- Be mindful of Autonomic Dysreflexia (AD)
A pressure ulcer may cause mild symptoms.
- Daily skin care is very important in order to avoid pressure ulcers, skin irritation or infection.

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Moisture lesion

A moisture lesion is irritation caused by sweat, urine or faeces' acidity along with repetitive washing with soap substances and drying.

- Wash without harsh soaps
- Use a neutral pH balanced soap
- Dry carefully and thoroughly
- Protect the whole area with a barrier product
- Seek help from a nurse, district nurse or healthcare professional to optimise your recovery as quickly as possible.

If it worsens you may need to consult your doctor for a treatment that needs a prescription

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Sun Protection

As before your injury, you can still catch the sun and there is always the chance you will burn:

- **Your skin is more sensitive now and more likely to burn** because you are sitting for long periods of time in the same position.
- **You may not be aware of the heat sensation**, therefore great care needs to be taken when in the sun.
- **Sun cream (factor 30 or above)** needs to be applied more frequently than before and at least every 2 hours.
- **Wear a sun hat and t-shirt** so your shoulders are covered and cover up areas of limited sensation.
- **Keep out of the sun between 11 am and 3 pm** when the sun is at its hottest.
- **You can still catch the sun in the shade, so cover up**

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What happens to the skin after SCI

- You may find you no longer have full function or any function at all in the muscles below the level of your spinal cord injury
This leaves less structural support to the skin and blood vessels, so they get squashed more easily.
- The nerve endings in the skin can no longer connect properly with the whole spinal cord which results in some or all of sensation being lost, so the ability to detect pain, touch, heat and cold can be harder or sometimes impossible.
- The skin's ability to heal itself below the level of spinal cord injury is delayed due to reduced/slower circulation of a well oxygenated blood supply, therefore cuts and wounds may take longer to heal than before injury.
- Oedema is caused by a collection of fluid in the tissues.
 - It usually occurs in the parts of the body that are not regularly moved.
 - Skin over areas of oedema becomes thin and pale and is easily injured.
 - Oedema can be helped by elevating your legs and hands frequently and wearing compressive garments.

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Diet and Fluids

Your skin reflects your general health. To keep it in good condition, you need a healthy balanced diet with lots of fresh fruit, vegetables and plenty of water.

Your diet should consist of:

- **Carbohydrates** such as bread, cereals, rice and pasta
 - **Fruit and Vegetables**, at least 5 a day
 - **Dairy products** such as milk, yoghurt and cheese
 - **Proteins** such as meat, poultry, fish, eggs and nuts.
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- **Drink** plenty of fluids, at least 2 – 2.5 litres a day is recommended.
This helps to keep everything inside you in working order and minimises the risk of constipation, urine/bladder infections and pressure ulcer development.
 - Eat foods high in nutrients
 - Eat a low fat, high fibre diet
 - Cut back on fat and 'empty' calories
(like those found in soft drinks, fruit juices, and sweets)
 - Eat two or three meals at regular times each day
 - Keep track of your eating habits
 - Many people eat because of stress, boredom, or anxiety.
Try to find other ways of dealing with these emotions to avoid overeating.
 - Balance the calories you eat with the calories you burn
 - Be active and exercise

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Washing

Some soaps may dry your skin too much, causing it to become irritated and itchy.

- It is best to use a pH balanced soap or shower gel.
- It is also important to rinse off any soap suds thoroughly.
- Alternatively you can use an emollient soap substitute.

Moisturise your skin regularly, this will prevent it from drying out. Make sure moisturiser is thoroughly rubbed in and your skin is dry before getting dressed.

Hands and feet can be soaked in a bowl of warm water to help soften dry dead skin.

Then gently remove the dead skin with an exfoliating body puff/mitt or emery board

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Clothing

Wearing proper fitting clothing is important:

- You should **avoid sitting on seams and back pockets**.
- You should always **check your skin** carefully after wearing new shoes or clothing.
If you are wearing new clothes or shoes you may want to wear them for a short period of time to see if they fit properly, or mark your skin.
- It is important to **wear shoes at least one size bigger** than your normal size, because your feet tend to swell.
- If you are **on an aeroplane it is advised to wear shoes two sizes bigger** as feet and legs tend to swell more when flying.
- **If clothing is too loose** it can form wrinkles that put pressure on your skin and if clothing is too tight it will mark your skin.
Overly tight clothing can hinder circulation, which will increase the chance of pressure ulcer development.

If you are unwell with a high temperature and possibly sweating, your skin will be clammy and more vulnerable to damage from pressure, shear or friction.

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Skin checks

- **Check your skin on a regular basis, at least twice a day** as pressure ulcers and infections can occur very quickly.
- **There may be times when you need to check it more.** If you have fallen from your chair or knocked your legs against something, it is important to check your skin as soon as it happens and then 30 minutes later to check if any red marks have appeared.

Areas that need special attention are:

Groin area
Behind knees
The areas around the ankles and elbows
Your sitting bones, hips and coccyx.

In areas where sensation is decreased or lost completely, skin inspection is essential and should become a habit.

Plan it as a part of a regular routine, during a time when you are undressed, like after a shower, before dressing in the morning or after undressing in the evening.

If you are unable to see some parts of your body, use a long handled mirror or teach another person to check your skin for you. Always make sure they inform you of what your skin looks like and even take a photograph to show you.

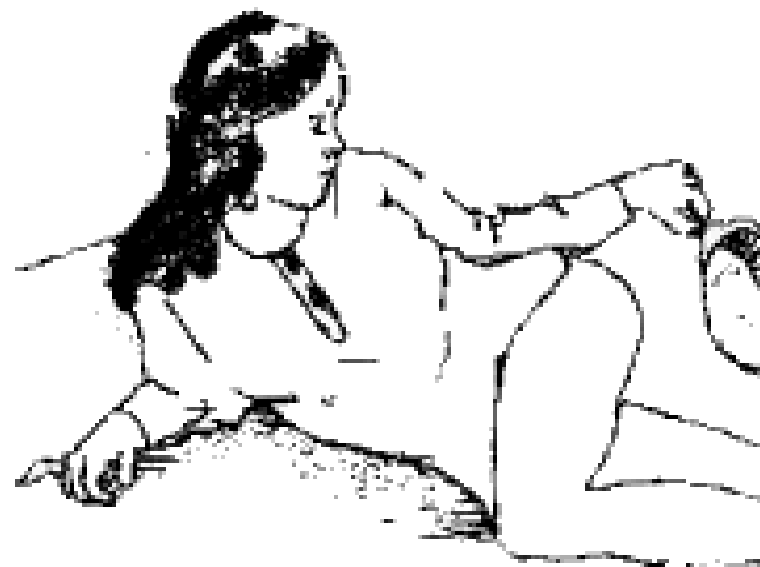
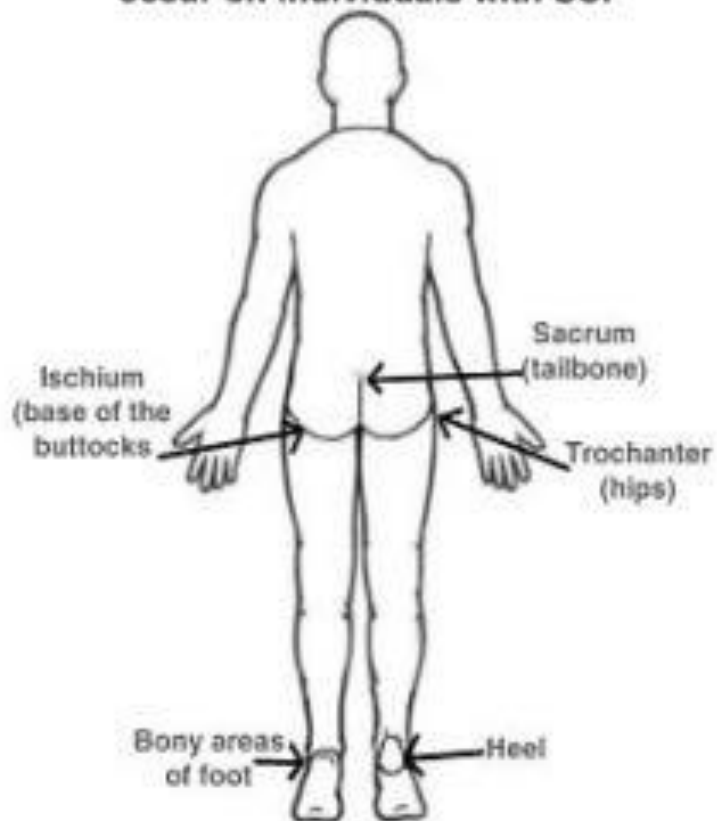
You can practise checking your skin with the nurses on the ward when you are getting dressed and undressed.

Know what your skin normally looks like

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Most common areas where pressure sores occur on individuals with SCI



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Weight

It is important to **maintain a healthy weight for your height** because:

➤ **If you are underweight**

- Your bony areas protrude more, so if you are sitting for long periods of time there is increased pressure on bones.
- This will increase the risk of pressure ulcers developing.
- You should do pressure relief more frequently and for longer periods of time.

➤ **If you are overweight**

- You put more pressure on your spine and skin
- As people gain weight, skin folds develop which trap moisture, greatly increasing the risk of pressure ulcers

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Shear

When the skin gets dragged it puts a perpendicular force onto the tissues and blood vessels directly under the skin:

- This might happen during a transfer where your bottom gets dragged, especially if you are wet when transferring out of the shower.
- Shear damage can also happen when you slip out of a good seating position, or slide down the bed if sitting up in bed.
- It is not advisable to sit above 30 degrees when in bed
 - it is very difficult to stop sliding down the bed and dragging the skin when trying to get back up the bed unless a proper sliding sheet is used

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Friction

- Friction damage happens **when the skin surface gets rubbed**, and happens more easily when the skin is fragile or hot and sweaty.
- **Do not allow skin to get damaged like this**
 - if you have excessive spasms, protect your skin and consider why your spasms are excessive.
- **Make sure shoes are not too tight or rubbing** causing blisters.

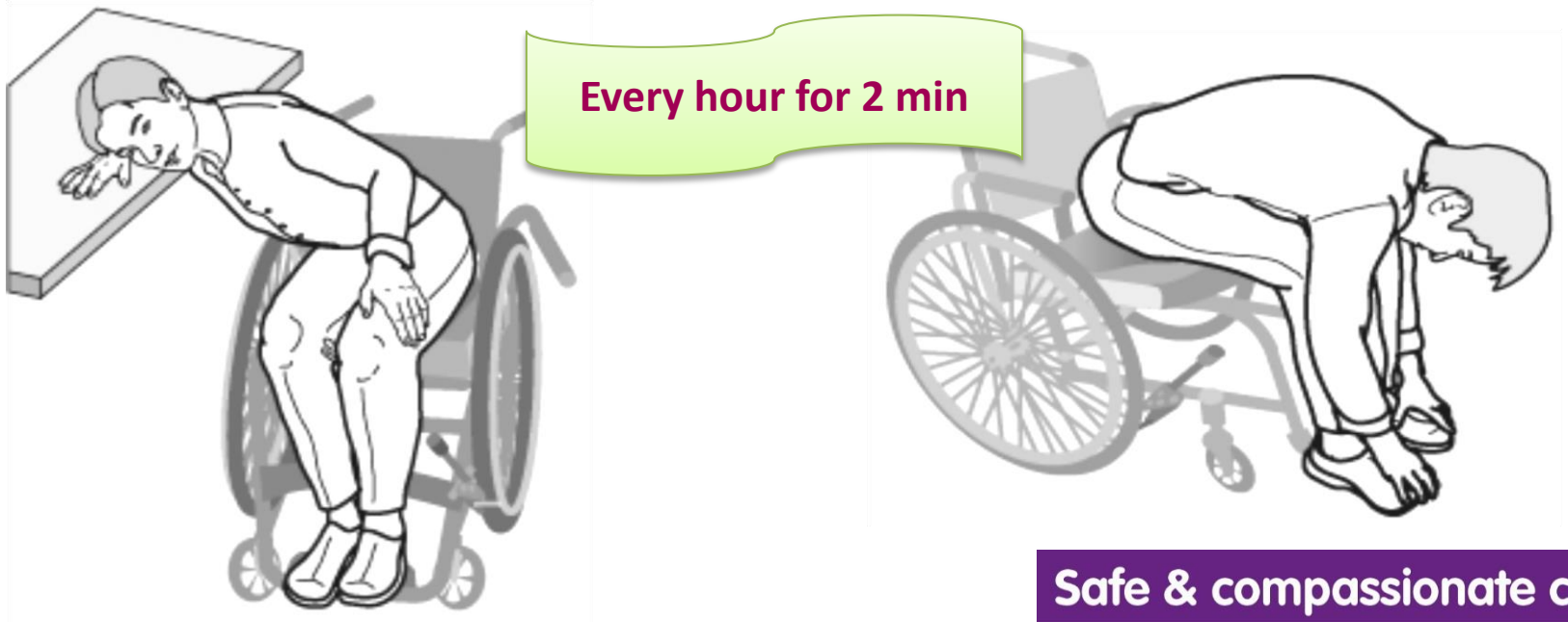
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Pressure relief

When sitting in your wheelchair you need to do regular pressure relief:

- **Change your position every hour** so that pressure is taken off your bottom
- **It is very important to maintain healthy skin**
 - Prolonged pressure will squeeze the blood out of the blood vessels in that area and deprive the skin of important nutrients and oxygen.
- An extremely good way of reducing the risk of pressure ulcers.



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Pressure relief when lying in bed on your back

- ❑ Make sure your heels are not on the mattress.
- ❑ Place a pillow under the legs to free the heels and a pillow against the sole of your feet to prevent foot drop.



Pressure relief when lying in bed on your side

- ❑ **Do not** rest one leg on top of the other
- ❑ Instead, place one leg forward and one behind to help keep the side lying position
- ❑ A pillow should be placed between your knees
- ❑ Make sure there is no pressure on your shoulder



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