

COVID-19 Health professionals working with SCI people

In addition to MoH advice (<https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus>) healthcare professionals looking after SCI persons with respiratory infection and fever should consider the following:

Respiratory

Tetraplegia and high-level paraplegia results in compromised breathing due to paralysed muscles of respiration and abdominal muscles in addition to weakened cough reflex. Support may therefore be required to maintain respiration and clear the airway of secretions.

When sat up lowering of the diaphragm can occur due to paralysis of the supporting abdominal muscles. Thus, increasing required respiratory effort. Consider application of an abdominal binder and supine positioning 45 degrees or lower to prevent respiratory fatigue.

- Prophylactic sputum clearance management is required if chest secretions increase.
- Regular position change to encourage postural drainage.
- An assisted cough will be required to assist with sputum clearance. Use of a mechanical insufflation/exsufflation device may be required. *Consider oxygen therapy. *
- Referral to physiotherapist is essential
- Continuous monitoring of Sao₂, arterial blood gases and vital capacity is essential for early recognition of respiratory failure.
- Consider if non-invasive ventilation appropriate to prevent respiratory fatigue.
- Be aware that constipation can splint the diaphragm and increase respiratory effort.
- Use of Protective face mask.

Thermoregulation

Spinal cord injury compromises the ability of the autonomic nervous system to regulate body temperature in the paralysed parts of the body. Those with fever are therefore at high risk of heat exhaustion if cooling methods are not commenced.

- If possible, reduce environmental temperature.
- Remove clothing and use modesty sheet only
- Use oscillating fan
- Encourage cold drinks

- Apply a cold dampened cloth around back of neck and in armpits.
- If appropriate use paracetamol and Ibuprofen to reduce fever.
- Monitor temperature closely and cease cooling interventions as soon as temperature returns to normal limits (typically 36.5–37.5 °C or 97.7–99.5 °F) to prevent hypothermia.

Autonomic Dysreflexia

A life-threatening condition resulting in a surge in blood pressure which can lead to seizures, stroke or death. Requires immediate clinical attention. Usual causes are a distended bladder, impacted bowel, compromised skin integrity or any noxious stimulus in the paralysed part of the body.

- Ensuring bladder can drain effectively.
- If indwelling catheter in situ secure to prevent pulling or kinking.
- Raise persons head *Find cause and remove i.e. change catheter
- If cause not immediately resolved, consider administration of nifedipine sublingually or GTN spray.
- Continue to find cause and remove/manage.
- <https://www.cdhb.health.nz/wp-content/uploads/4f57457e-burwood-spinal-unit-autonomic-dysreflexia-poster.pdf>

Preventing Skin damage

Due to neurogenic skin there is a very high risk of skin damage in areas where sensation is reduced. Pressure injury can occur within a very short time i.e. <2 hours.

- Assist person to undertake 2 hourly position changes.
- Place pillows under legs to ensure heels and ankles are off-loaded of all pressure.
- If on an ambulance trolley or non-pressure reducing surface transfer to an alternating pressure mattress ASAP.
- Visually check all skin for signs of redness or discolouration, warmth, change in texture or skin breakdown. Remove pressure from the area immediately and develop a pressure injury management plan.
- <https://www.aci.health.nsw.gov.au/networks/spinal-cord-injury/pi-toolkit>

Neurogenic Bladder Management

Due to lack of bladder sensation close monitoring of urinary output is required to prevent bladder distension which could lead to autonomic dysreflexia or other complications

- If indwelling catheter required ensure adequately secured to prevent pulling or kinking.
- Indwelling urethral and suprapubic catheter requires routine change every four to six weeks.
- If usual bladder management is intermittent self catheterisation or reflex voiding they may require an indwelling catheter.

Neurogenic Bowel Management

Continuation of bowel management programme is essential to prevent constipation, avoid stress to respiration secondary to compromised diaphragm, faecal incontinence, compromised skin integrity and loss of dignity

Persons with SCI and their care team are usually experts in the essential spinal cord injury care requirements. Healthcare staff should acknowledge this and seek advice and guidance on how these can be continued to be supported in addition to any acute care needs that may arise.

- Adherence to amount and timing of usual oral laxatives and rectal interventions is essential.
- Assistance with Digital rectal stimulation/Digital manual evacuation and personal hygiene needs may be required to be performed by health professional or carer/support worker.
- Bowel care may be performed over the toilet or in left side lying position on the bed with appropriate bed protection ie incontinence sheets.
- If transferring to commode/toilet may require hoist transfer or assistance with transfer board.

Avoid 'Nappy' type containment pads as these will avoid detection of any incontinent episodes and can lead to skin excoriation from incontinence and pressure injury. Incontinence sheets are more appropriate only if necessary.



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Useful resources

[RCN Guideline for Lower Bowel Dysfunction](#)

[Guidelines for Management of Neurogenic Bowel Dysfunction in Individuals with Central Neurological Conditions](#)

https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0019/155215/Management-Neurogenic-Bowel.pdf

https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0004/155929/Neurogenic_bowel.pdf

[MASCIP statement on Autonomic Dysreflexia](#). MASCIP Statement on Autonomic Dysreflexia 4. National Patient Safety Alert 2018

<https://www.cdhb.health.nz/wp-content/uploads/4f57457e-burwood-spinal-unit-autonomic-dysreflexia-poster.pdf>

HealthPathways

<https://www.healthnavigator.org.nz/clinicians/r/regional-pathways/>

The NSW ACI link to the Management of Neurogenic Bowel for Adults with SCI

https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0019/155215/Management-Neurogenic-Bowel.pdf

https://www.aci.health.nsw.gov.au/_data/assets/pdf_file/0004/155929/Neurogenic_bowel.pdf

Autonomic Dysreflexia

<https://www.cdhb.health.nz/wp-content/uploads/4f57457e-burwood-spinal-unit-autonomic-dysreflexia-poster.pdf>

NSW ACI Pressure Injury Toolkit

<https://www.aci.health.nsw.gov.au/networks/spinal-cord-injury/pi-toolkit/resources>



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