

Pathophysiology

Spinal cord injury (SCI) is impact or compression to the spinal cord resulting in a change, either being temporary or permanent. Usually these injuries result in permanent neurological deficits and disability. The most important aspect of clinical care for the SCI patient is preventing complications related to disability.

Your ability to control your limbs after a spinal cord injury depends on two factors;

- The place of the injury along your spinal cord and the severity of injury to the spinal cord. The lowest normal part of your spinal cord is referred to as the neurological level of your injury.
- The severity of the injury is often called “the completeness” and is classified as either of the following:
- **Complete.** If all feeling (sensory) and all ability to control movement (motor function) are lost below the spinal cord injury, your injury is called complete.
- **Incomplete.** If you have some motor or sensory function below the affected area, your injury is called incomplete. There are varying degrees of incomplete injury.

Spinal injuries can affect the body in many ways including;

- Movement control & muscle tone
- Bladder and bowel control
- Skin sensitization
- Circulatory control
- Respiratory system
- Pain
- Depression and anxiety

BENEFITS OF EXERCISE

- Reduce risk of comorbidities & overuse injuries
- Increase independence and decrease reliance on carers
- Improved activities of daily living (ADL) capacity
- Increase self efficacy
- Improved aerobic endurance
- Improved transfers
- Improve working capacity or retraining ability
- Decrease complications relating to immobility
- Decrease falls risk
- Improve mental health

References

Hicks, A., Martin, K., Ditor, D., Latimer, A., Craven, C., Bugaresti, J. and McCartney, N. (2002). Long-term exercise training in persons with spinal cord injury: effects on strength, arm ergometry performance and psychological well-being. *Spinal Cord*, 41(1), pp.34-43.

Hicks, A., Martin Ginis, K., Pelletier, C., Ditor, D., Foulon, B. and Wolfe, D. (2011). The effects of exercise training on physical capacity, strength, body composition and functional performance among adults with spinal cord injury: a systematic review. *Spinal Cord*, 49(11), pp.1103-1127.



GOT A QUESTION?
myhealth@pacehm.com.au

24 Yuille Street, Frankston South 3199	9770 6770	2/18 Station Street, Sandringham 3191	9598 3169
Rear 103 Main Street, Mornington 3931	5973 6109	73-75 Station Street, Malvern 3144	9576 3216
Suite 5/34-38 Lochiel Ave, Mt Martha 3934	5974 3147		



FOLLOW @PACEHM
TO ENHANCE YOUR
HEALTHY LIFESTYLE

PACE Health Management
pacehm.com.au