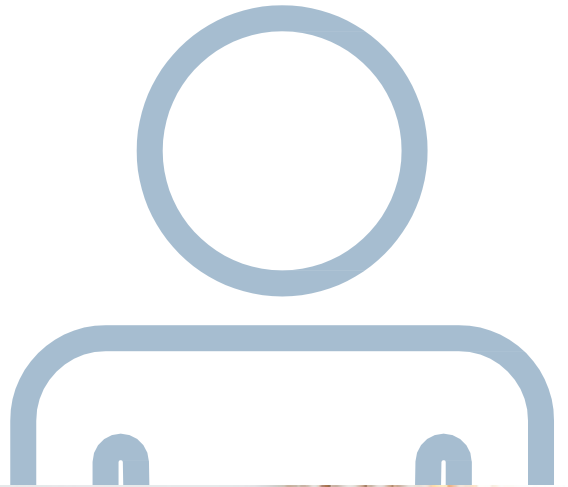


# WHAT IS SCI?

## FACTSHEET



# Spinal Cord Injury

## What is spinal cord injury (SCI)?

The spinal cord is an extension of the brain and is made up of a thick bundle of nerves. The nerves carry messages from our brain to the rest of our body. These messages help us to move our body, feel pressure/sensation and control vital functions like breathing, blood pressure and bladder and bowel activity. When the spinal cord is damaged, the communication between our brain and the rest of our body is disrupted, resulting in a loss of movement and sensation from below the level of injury.

In addition there may be loss of voluntary control of some of the bodily functions. Damage to the spinal cord can be caused by a trauma like an accident, or as a result of infection, a medical condition or disease.

## How will spinal cord injury affect my body? (See figure 1)

SCI can impact on every bodily system. The higher up you damage the spinal cord, the more movement and sensation will be lost.

- Damage to your spinal cord in your thoracic and lumbar (back) area will result in paraplegia. Paraplegia affects the movement and sensation in your legs and abdominal muscles.
- Damage to the spinal cord in your neck (cervical area) will result in tetraplegia. Tetraplegia affects movement and sensation in all four limbs, as well as abdomen and chest muscles.

Damage to the lower end of the spinal cord can result in cauda equina syndrome. This may result in foot drop and altered sensation in the lower limbs. No matter where the spinal cord is damaged, it is highly likely that control of your bladder, bowel, and sexual functioning can be affected. Those with tetraplegia and high-level paraplegia of T8 and above may also have respiratory compromise and weakened cough.

It is important to be aware that the loss of movement and sensation will vary from person to person, even with those who have damaged their spinal cord in the same place.

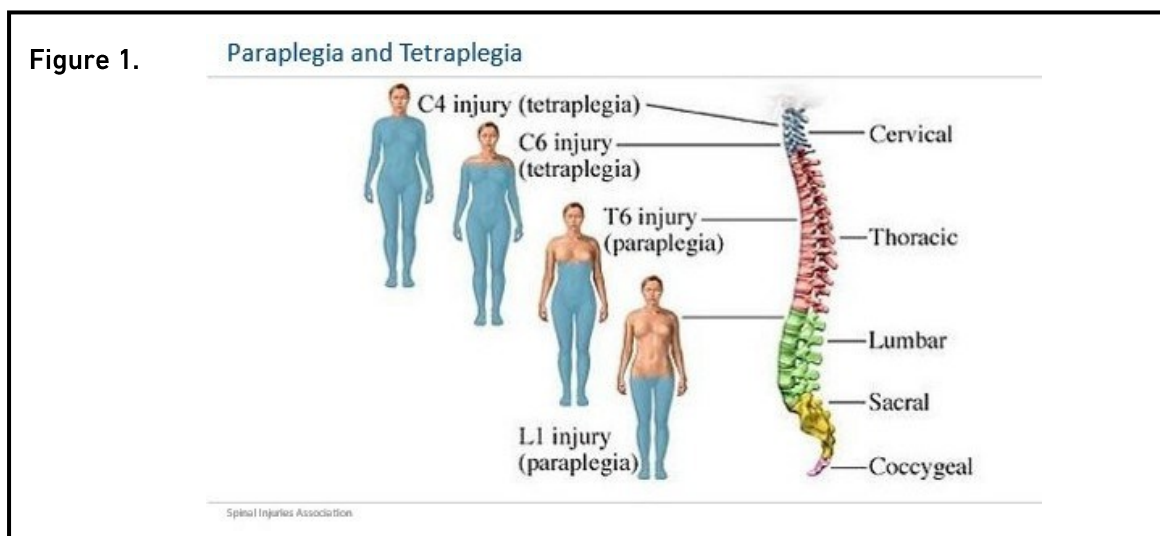
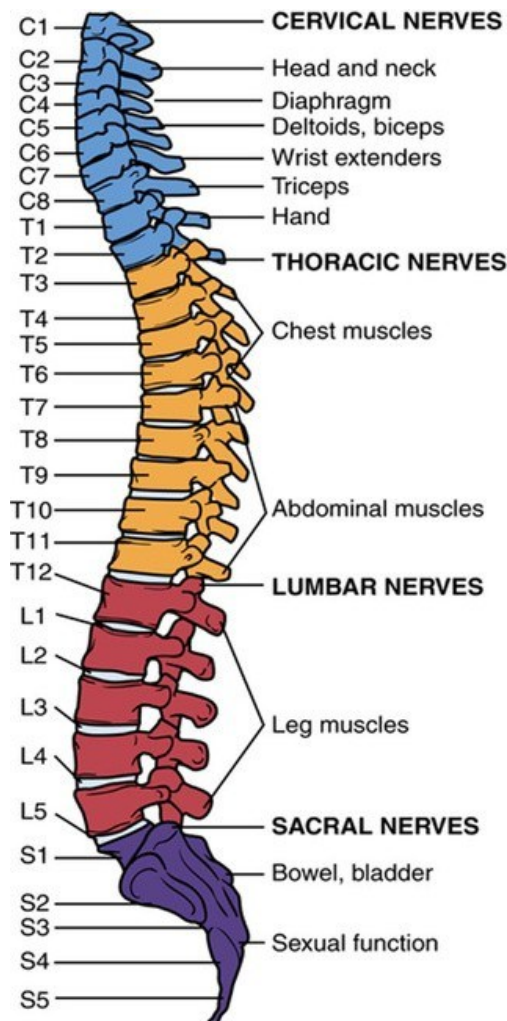


Figure 2.



What are the letters and numbers healthcare professionals keep mentioning?

The spinal cord exits between each of the spinal vertebrae. The bundle of nerves that exit are called spinal nerve roots. Each spinal nerve root has a particular name and number.

For instance, the nerve roots in your neck are called cervical nerves and are numbered 1- 8 in descending order. There are 12 thoracic nerve roots, 5 lumbar and 5 sacral nerve roots. These nerve roots branch out and are responsible for controlling muscles, sensations and organs in different parts of the body (see figure 2).

What does complete/incomplete mean?

Complete or incomplete injury refers to the type of injury you have sustained. If both sides of your body are affected and there is no muscle function or voluntary movement or sensation from the injury level and below, then your injury is complete. Healthcare professionals might refer to your injury as C3 complete, for example.

If you have some muscle function below your injury, such as being able to move one limb, or you still have some normal sensation, then your injury is incomplete. Healthcare professionals might refer to your injury as C4 incomplete for example. As emergency and medical treatment advances, incomplete injuries are more common.

What will I be able to do in the future?

Although SCI may disrupt the plans and activities you had, life does go on and it can be as rich and fulfilling as before.

Bladder and bowel control may not be regained but it is possible to learn to manage these to avoid incontinence.

Even though sex and fertility can be affected, both spinal cord injured men and women can go on to have satisfying sex lives and many may become parents.

Some people return to their previous jobs, whilst others use the opportunity to retrain for a new profession and/or start new hobbies.

Our services support you as you rebuild your life after a spinal cord injury. [Find out more.](#)

Click [here](#) to find out more about how our Support Network Team can offer advice and support to people with spinal cord injury and their families.

**For more information, contact us at:**

Spinal Injuries Association, SIA House,  
2 Trueman Place, Milton Keynes, MK19 6HY

0800 980 0501 (freephone support line open Mon-Fri 10.00am-4.30pm)

sia@spinal.co.uk



## About SIA

Spinal Injuries Association (SIA) is the leading national charity for anyone affected by spinal cord injury. We have specialist support available, for free, to support you through the mental and physical challenges you may face, both now and for the rest of your life.

Our support network is coordinated by a team of people, across the UK, who can put you in touch with our network of experts and trusted partners, covering all aspects of mind, body and life, to help you move forward with life. Our partners specialise in services such as legal, care, housing, finance, mental health and much more.

We are the voice of spinal cord injured people, through our expertise and we can connect you to the services and organisations you need through our network for all.

You can join the SIA community by signing up for free online at [www.spinal.co.uk](http://www.spinal.co.uk).

### Disclaimer

This factsheet has been prepared by SIA and contains general advice that we hope will be useful. Nothing in this factsheet should be construed as giving specific advice, and it should not be relied on as a basis for any decision or action. SIA does not accept any liability arising from its use. We aim to ensure the information is as up-to-date and accurate as possible, but please be warned that certain areas are subject to change from time to time. Please note that the inclusion of named agencies, companies, products, services or publications in this factsheet does not constitute a recommendation or endorsement.

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