Spinal cord injury - paraplegia

betterhealth.vic.gov.au
Summary

- Most spinal cord injuries are caused by accidents.
- Loss of function tends to correspond to the level in the spinal cord where damage occurred.
- People with spinal cord injuries can lead productive lives.

Both paraplegia and quadriplegia are conditions which result from injury or trauma to the spinal cord. The spinal cord runs through the centre of the bony spine. It is like a system of telephone wires which conduct messages from the brain, through the nerves, to all parts of the body.

Damage can be due to various causes

People can receive damage to the spinal cord due to an accident, for example a:

- Motor accident
- Diving mishap
- Fall
- Sporting accident
- Household accident.

Damage can also result from a tumour or blood clot on the spinal cord. The majority of people who have a spinal cord injury are young males (who have a greater tendency to indulge in risky behaviour). However, there are people from both sexes and of all ages with spinal cord damage.

Loss of function usually relates to site of injury

The amount of function lost tends to correspond to the level in the spinal cord where the damage takes place. A break near the top of the neck can mean that even breathing is difficult and that people must use a respirator. People with an injury in the lower neck, however, usually have arm movement but perhaps not finger movement. However they can often drive, work, write etc with the help of specialised equipment.

People with damage to the upper part of the spinal cord are called quadriplegics or tetraplegics. People with damage below this level are called paraplegics.

People with injuries in the lower back can have sensation and movement right to the hips. They can usually live totally independently with a minimum of help, as long as they can use a wheelchair and have the necessary alterations to their home, their bathroom and car.

There are many degrees of injury and function loss, which don't always correspond to the level of the injury on the spine. Sometimes a quadriplegic only sustains partial damage to the spinal cord and can actually walk, though they may have lost other functions. At all levels, there is usually some loss of function in the bowel and bladder.

People with spinal cord injuries can lead productive lives

Given the right sort of equipment and adaptations to buildings, people with spinal cord injury can do most things that the rest of the community can. They can:

- Work
- Study
- Enjoy recreation
- Socialise
- Have relationships
- Have a family of their own.

Sometimes though, they do these things in a slightly different way to the majority of the community.

Handicaps result from ignorance not the injuries

Many handicaps encountered by people with spinal cord injuries actually result from lack of consideration. Services in the community often do not cater for their needs.

Without adequate access arrangements, these services may be inaccessible:

- Public buildings
- Shops
- Theatres
- Restaurants
- Public transport.

There has been some improvement in this area since the introduction of the Disability Discrimination Act.
Some common health problems

Other problems which can arise for people with spinal cord injuries are:

- Frequent urinary tract infections
- Kidney stones
- Muscle spasm
- Pressure sores from sitting in one position for too long without a correct pressure cushion
- Wide and rapid fluctuations in body temperature.

At a higher level of injury, a condition called autonomic hyperreflexia, also known as autonomic autonomic dysreflexia, may develop. This condition can be triggered by a variety of factors, including distended bladder, distended bowel and skin or pressure sores. The symptoms of this condition include raised temperatures, profuse sweating, high blood pressure, headaches, slow pulse rate and blackouts.

Treatments used

Antibiotics are generally used to cure urinary tract infections. Some people use cranberry juice and other herbal remedies as a preventative. Some people take medication for muscle spasm. Others with slight spasms prefer not to.

Symptoms and level of pain vary

As you can see, there is a huge variation within this condition. Some people experience pain and various complications, and others are relatively healthy with little need for medication. The loss of sensation can mean that pain is at a low level. Some people, on the other hand, experience intense pain.

Where to get help

- Your GP (doctor)
- Independence Australia Tel. 1300 704 456
- Spinal Cord Injuries Australia Tel. 1300 819 772 (people with disabilities and their carers outside Sydney)
- St John Ambulance Australia (Victoria) Tel. 1300 360 455
- AQA Victoria Ltd Tel. 1300 9489 0777

Send us your feedback

- Rate this website
- Your comments
- Questions
- Your details

1/4 How would you rate this website?

- Excellent
- Good
- Average
- Fair
- Poor

Send us your feedback

- Rate this website
- Your comments
- Questions
- Your details

Please note that we cannot answer personal medical queries. If you are looking for health or medical advice we recommend that you:

- talk to your doctor or pharmacist
- dial triple zero (000) in an emergency
- ring NURSE-ON-CALL Tel. 1300 60 60 24.

2/4 Your Comments

Tell us who you are Select an option

Enter your comments below (optional)
More information

Brains and nerves

The following content is displayed as Tabs. Once you have activated a link navigate to the end of the list to view its associated content. The activated link is defined as Active Tab

- Brain and nerve basics
- Brain and head injury
- Brain tumours
- Brain related conditions
- Epilepsy and seizure
- Nerve related conditions
- Spinal cord
- Speech and language
- Tests and procedures

Brain and nerve basics

- Brain
  Messages relay between the brain and the motor and sensory nerves of the body in a constant ‘conversation’...

- Brain death
  Brain death differs from other states of unconsciousness in important ways...

- Brain surgery
  Brain surgery is performed for a number of reasons, including alterations in brain tissue, brain blood flow and cerebrospinal fluid...

- Central nervous system birth defects
  Folic acid taken before conception, and during at least the first four weeks of pregnancy, can prevent around seven out of 10 cases of neural tube defects...

- Coma
  A wide range of illnesses, conditions and events can cause coma...

- Epilepsy and Young People - Diagnosis (video)
Epilepsy is the world's most common serious brain disorder and is characterised by a tendency to have recurrent seizures. Most seizures are spontaneous and brief yet self-limiting and can involve:

- Nervous system
  The nervous system helps all the parts of the body to communicate with each other.

Brain and head injury

- Acquired brain injury
  The long-term effects of brain injury will be different for each person and can range from mild to profound.
- Alcohol related brain impairment
  A person with alcohol related brain impairment (ARBI) might experience problems with coordination, thinking, planning and memory.
- Alcohol related brain impairment - memory loss
  If a person with alcohol related brain impairment is aware of their memory limits, they can learn how to deal with them.
- Alcohol related brain impairment - support
  People with alcohol related brain impairment benefit when their life is organised and follows a good structure.
- Brain injury and sexual issues
  A brain injury can change the way a person experiences and expresses their sexuality.
- Head and spinal injuries first aid
  Head injuries can be serious and require urgent medical attention. A hard blow to the head from a fall, knock or assault can injure the brain, even when there are no visible signs of trauma to the...
- Head injuries and concussion
  There is no specific treatment for mild head injury other than plenty of rest, and not overdoing things.
- Subarachnoid haemorrhage
  A subarachnoid haemorrhage is any bleed located underneath one of the protective layers of the brain known as the arachnoid layer.
- Subdural haematoma
  Subdural haematoma are blood clots formed underneath one of the protective layers of the brain.

Brain tumours

- Acoustic neuroma
  In its earlier stages, an acoustic neuroma can present similar symptoms to other, less serious conditions, which may delay diagnosis and treatment.
- Brain tumours - cancer
  Brain cancer symptoms and treatment depend on which part of the brain is affected.
- Brain tumours - glioma
  Gliomas are brain tumours associated with the three types of glial cell in the brain.
- Meningioma
  A meningioma is a non-cancerous brain tumour and responds well to treatment.
- Pituitary tumour
  Generally, pituitary tumours are benign and slow growing, and pituitary cancers are extremely rare.

Brain related conditions

- Amnesia
  Loss of memory can be temporary or permanent, but ‘amnesia’ usually refers to the temporary variety.
- Creutzfeldt-Jakob disease (CJD)
  Creutzfeldt-Jakob disease is characterised by physical deterioration of the brain, dementia and walking difficulties.
- Dementia explained
  Dementia is not a normal part of ageing and can happen to anybody.
Epilepsy and Young People - Diagnosis (video)

Epilepsy is the world’s most common serious brain disorder and is characterised by a tendency to have recurrent seizures. Most seizures are spontaneous and brief yet self-limiting and can involve:

- Headache
  Although nearly all of us will experience a headache during our lifetime, persistent headaches need to be medically investigated with tests such as scans, eye tests or sinus x-rays.

- Headache – migraine
  Migraine causes a severe and throbbing headache, usually on one side of the head, as well as symptoms such as nausea.

- Hydrocephalus
  Hydrocephalus is the abnormal enlargement of the brain cavities (ventricles) caused by a build-up of cerebrospinal fluid.

- Leukodystrophy
  Leukodystrophy refers to a group of inherited disorders that affect the white matter of the brain, which causes loss of normal brain functions.

- Stroke explained
  A stroke interrupts blood flow to an area of the brain and is a medical emergency.

Epilepsy and seizures

- Epilepsy and employment
  Many people living with epilepsy are successfully employed across a range of professional fields.

- Epilepsy
  Medication can provide seizure control for approximately 70 per cent of people with epilepsy.

- Epilepsy and exercise
  It is rare for a person with epilepsy to have a seizure during physical activity, but you should always take safety precautions when exercising.

- Epilepsy and Young People - Diagnosis (video)
  Epilepsy is the world’s most common serious brain disorder and is characterised by a tendency to have recurrent seizures. Most seizures are spontaneous and brief yet self-limiting and can involve.

- Epilepsy - first aid and safety
  Good seizure management is an important part of reducing the risks associated with epilepsy.

- Epilepsy in children
  Children with epilepsy generally have seizures that respond well to medication, and they enjoy a normal and active childhood.

- Epilepsy - lifestyle issues
  Learn about your epilepsy so that you can make informed decisions about your lifestyle.

- Fever - febrile convulsions
  A febrile convolution is a fit that occurs in children when they have a high fever.

- Fibromyalgia
  Fibromyalgia is a condition associated with widespread pain and tenderness.

- Medicinal cannabis
  Medicinal cannabis is a legal, high quality medicine that can be prescribed for people by their doctor.

Nerve related conditions

- Bell’s palsy
  The majority of people with Bell’s palsy, around 90 per cent, will recover completely with time.

- Carpal tunnel syndrome
  Carpal tunnel syndrome can be caused by repetitive hand movements, pregnancy and arthritis.

- Complex regional pain syndrome (CRPS)

betterhealth.vic.gov.au
Complex regional pain syndrome (CRPS) is a painful condition of a person’s arm, hand, leg or foot, which occurs after an injury, such as a fracture.

- Diabetes type 2
  Type 2 diabetes may be prevented, but it cannot be cured.

- Diabetic neuropathy
  Diabetes is the most common cause of neuropathy.

- Eyes - optic neuritis
  Optic neuritis is inflammation of the optic nerve that causes blurred, grey and dim vision.

- Friedreich's ataxia
  To the casual observer, a person with Friedreich ataxia may seem to be drunk.

- Guillain-Barré syndrome
  Most people with Guillain-Barré syndrome experienced some form of viral or bacterial infection before the onset of symptoms.

- Neuralgia
  Neuralgia is pain in a nerve pathway. Generally, neuralgia isn't an illness in its own right, but a symptom of injury or a particular disorder.

- Pins and needles
  Pins and needles is a sensation of uncomfortable tingling or prickling, usually felt in the hands or feet.

**Spinal cord**

- Quadriplegics - tendon transfer surgery
  Many quadriplegics could live more independent lives with a highly specialised operation called tendon transfer surgery.

- Spina bifida
  Folate can prevent up to 70 per cent of spina bifida cases if taken daily for one month before conception and during the first three months of pregnancy.

- Spinal cord injury - paraplegia
  Most people who have a spinal cord injury are young males, who have a greater tendency to indulge in risky behaviour.

- Spinal muscular atrophy (SMA)
  A child with spinal muscular atrophy type 1 rarely lives beyond three years of age.

- Syringomyelia
  Syringomyelia is the growth of a cyst in the spinal cord that may result in paraplegia or quadriplegia if not treated.

**Speech and language**

- Childhood apraxia of speech
  Childhood apraxia of speech affects a person’s ability to organise the muscles used in speech.

- Dyslexia
  Dyslexia is a type of specific learning difficulty (SLD) in which the person has difficulties with language and words.

- Stuttering
  Children who stutter should see a speech pathologist, preferably before they start school.

**Tests and procedures**

- CT scan
  The CT scan is a medical imaging procedure that uses x-rays and digital computer technology to create detailed images of the body.

- EEG test
  In a person with epilepsy, an electroencephalogram (EEG) may show bursts of abnormal discharges in the form of spikes and sharp wave patterns.

- MRI scan
  The MRI scan is a medical imaging procedure that uses a magnetic field and radio waves to take pictures inside the body.

- PET scan

---

betterhealth.vic.gov.au
PET scans are tests that show how an organ or tissue is working...

- X-ray examinations

An x-ray examination uses a special machine to take two-dimensional pictures of internal body structures to help diagnose conditions or injuries...

Related Information

- Pain and pain management
  Pain is our bodies built in alarm system. Learn about types of pain, what is acute, persistent or chronic pain and and how to manage your pain...

- Carers, caring and respite care services
  Learn more about the wide range of services and support available to carers in Victoria...

- Syringomyelia
  Syringomyelia is the growth of a cyst in the spinal cord that may result in paraplegia or quadriplegia if not treated...

- Pins and needles
  Pins and needles is a sensation of uncomfortable tingling or prickling, usually felt in the hands or feet...

- Carpal tunnel syndrome
  Carpal tunnel syndrome can be caused by repetitive hand movements, pregnancy and arthritis...

Home

Related information on other websites

- Independence Australia
- SpinalHub

Support Groups

- Independence Australia

Content Partner

This page has been produced in consultation with and approved by: Better Health Channel

Last updated: August 2012

Page content currently being reviewed.

Content on this website is provided for information purposes only. Information about a therapy, service, product or treatment does not in any way endorse or support such therapy, service, product or treatment and is not intended to replace advice from your doctor or other registered health professional. The information and materials contained on this website are not intended to constitute a comprehensive guide concerning all aspects of the therapy, product or treatment described on the website. All users are urged to always seek advice from a registered health care professional for diagnosis and answers to their medical questions and to ascertain whether the particular therapy, service, product or treatment described on the website is suitable in their circumstances. The State of Victoria and the Department of Health & Human Services shall not bear any liability for reliance by any user on the materials contained on this website.
My Health Life helps you manage your health

With tools, information and recommendations tailored to you, it’s your personal and secure health dashboard.

Learn more

Medical Dictionary

Enter a search term Enter keyword(s)

Search

Search for your topic using the Merriam Webster medical dictionary

Service Search

Find services near you

Service: Select a service
Location:

Type a minimum of three characters then press UP or DOWN on the keyboard to navigate the autocompleted search results

Select a service

Find a service

Eg. Melbourne or 3000

Use my location

Find a service

Find a doctor

Need to find a doctor in your local area? Take a look at the general practitioners entry in our health service profiles.

see general practitioner

Recent Activity

37 people have watched a video today

• Health topics

• Conditions and treatments