

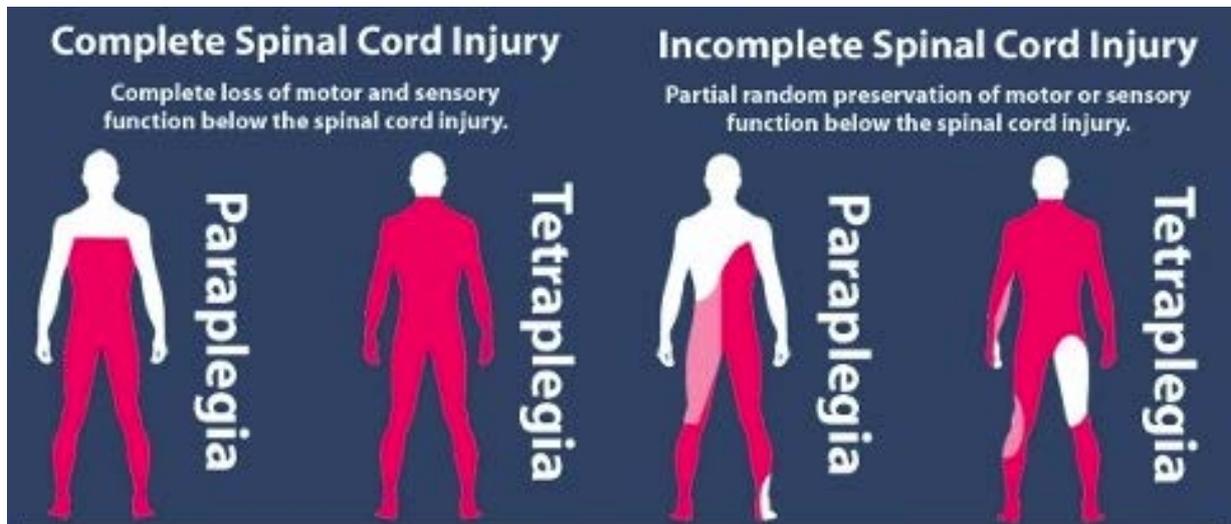
# Supporting Wheelchair Users during Physical Activity

## Why a participant might use a wheelchair

There are several different conditions resulting in reduced mobility or sensations. The following provides an overview but it is important to be aware that no two players are the same; and as such, your first step should always be to speak to the player to understand their abilities and goals, and never assume.

### Spinal cord injury

A spinal cord injury is damage or trauma to the spinal cord that results in a loss or impaired function, causing reduced mobility or sensation. The level of impaired function is dependent on the level of trauma to the spinal cord. The higher the spinal cord is damaged; the less mobility the player will have. Spinal cord injury can be divided into two types of injury: a complete injury resulting in no function below the level of the injury with both sides of the body equally affected. An incomplete injury results in some functioning below the primary level of the injury.



This diagram depicts spinal nerves and the areas of the body they control. Injury to these areas will result in impaired or loss of movement/sensation to the given area.

### Cervical

- Is the highest spinal cord injury and is usually caused by damage to the neck
- It is uncommon for individuals with a cervical injury to take part in physical activity

### Thoracic

- Injuries in the thoracic level can affect abdominal muscle control
- Individuals often participate in sport using a wheelchair. Their ability to perform activities will vary depending on the level of injury. Players with a T12 impairment will have a good range of upper body movement, compared with T4 impaired players who may choose to wear a (corset) back support. T4 players may also choose to strap themselves to the backrest of the wheelchair to offer greater support

### Lumbar

- Injuries in the higher lumbar level such as L2 will affect the lower back. L3 to L5 will affect the hips and legs
- Some individuals may be able to walk but it is likely they will play sport in a wheelchair. These players may choose to strap their legs to the wheelchair to keep them central in the seat

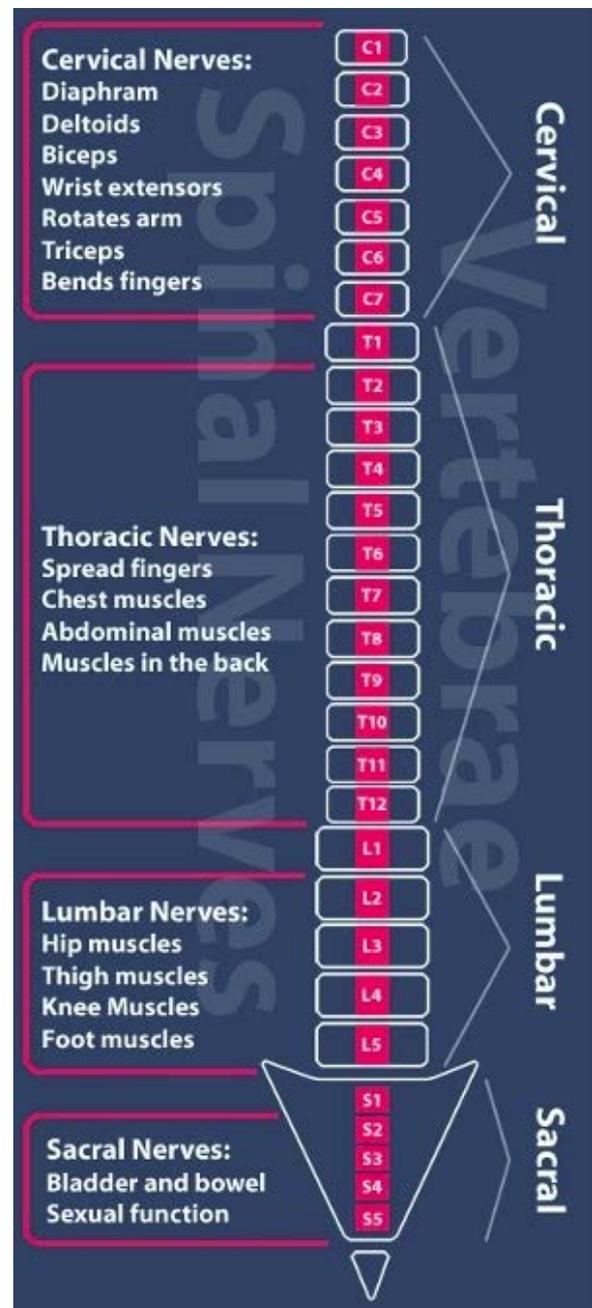
### Sacral

- Injuries in the sacral level generally result in some loss of function in the hips and legs
- Individuals will most likely be able to walk but may choose to play sport in a wheelchair

The information above is provided as guidance

only. Participants with the same lesion may

experience individual capabilities with regard to movement. ([www.apparelyzed.com](http://www.apparelyzed.com))



There are a number of other conditions (besides spinal injury) that may result in the player using a wheelchair for sport.

### Spina bifida

- Spina bifida is a series of birth defects that affect the development of the spine and central nervous system. It can result in partial or total paralysis of the lower limbs
- Many players with spina bifida have latex allergy so always check that equipment is not made of this material

### Muscular dystrophy

- Muscular dystrophy is a group of muscle diseases that weaken the musculoskeletal system and impair locomotion

### Cerebral palsy

- Cerebral palsy is a term that groups motor conditions that cause physical disability within development. Caused by damage to the motor control centre of the brain, which result in limited movement and are often accompanied by disturbance of sensation, depth perception, coordination and communication ability

### Amputee

- Amputation is the removal of a body extremity by trauma, prolonged constriction, or surgery

### Hemiplegia

- Hemiplegia is total paralysis of the arm, leg, and trunk on the same side of the body

### Multiple sclerosis (MS)

- Affects the brain and spinal cord. Symptoms include problems with; vision, arm or leg movement, sensation or balance

### Motor neuron disease

- Is an uncommon condition that affects the brain and nerves. It causes weakness that gets worse over time. Symptoms include weakness in ankle or leg, weak grip, muscle cramps/twitches

### Muscular dystrophy/spinal muscular atrophy

- Are conditions that gradually causes the muscles to weaken and causes problems with movement