



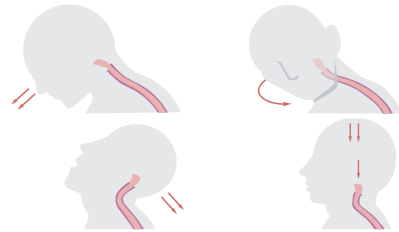
MECHANISM OF SPINAL CORD INJURY

A spinal cord injury (SCI) occurs when there is damage to any part of the spinal column or the nerves at the end of the spinal canal. A SCI may cause changes in motor, sensory, or autonomic function, which could be temporary or permanent.

Classifying Spinal Cord Injuries

1. Mechanism of injury

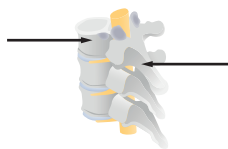
- Flexion
- Hyperextension
- Flexion-rotation
- Extension-rotation
- Compression



2. Level of injury

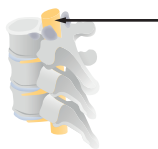
Skeletal level of injury

Vertebra with the most damage to vertebral bones and ligaments



Neurologic level of injury

Lowest segment of the spinal cord with normal sensory and motor function on both sides of the body



Common Incomplete Spinal Cord Injuries

Central cord syndrome

Most common, upper extremity deficit is > lower extremity deficit, frequently found in elderly clients w/ spondylosis or younger clients w/ severe extension injury

Anterior cord syndrome

Seen in flexion injuries, presents w/ immediate paralysis

Brown-Séquard syndrome

Spinal cord damage on one side, ipsilateral motor weakness and contralateral sensory deficit; may result from rotational injury or penetrating trauma

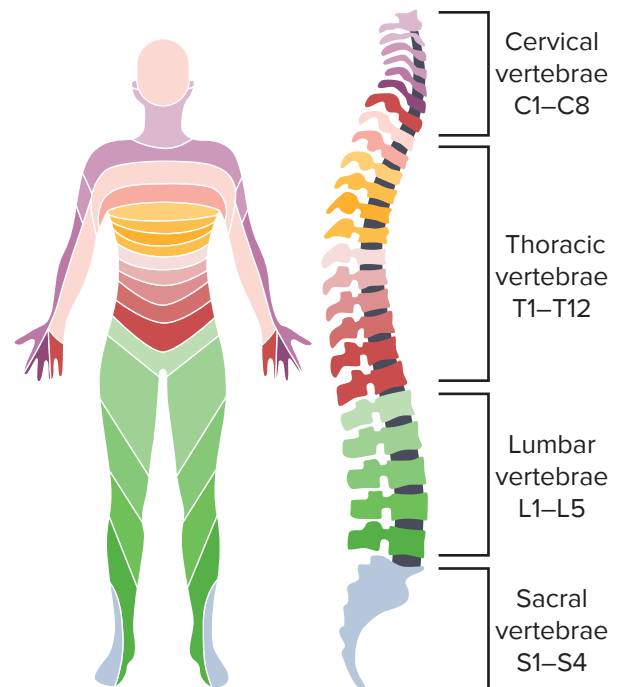
Posterior cord syndrome

Uncommon syndrome due to extension injury, loss of positioning sense, good prognosis

Immediate Care for Spinal Cord Injuries

- Immobilize the entire spine of any client with known or potential SCI.
- Assess airway, breathing, and circulation.
- Stabilize neck and use cervical collar when available.
- Monitor vital signs and provide airway and ventilatory support as needed.
- Use log roll with adequate personnel when turning client, ensuring spinal alignment.
- Transfer client from spinal board to firm padded surface as soon as possible.

Level of Injury and Corresponding Affected Body Areas



NOTES

