



SPINAL CORD INJURY

Damage or Trauma to the spinal cord resulting in either temporary or permanent alterations of normal motor, sensory and autonomic function.

AUTONOMIC NERVOUS SYSTEM:

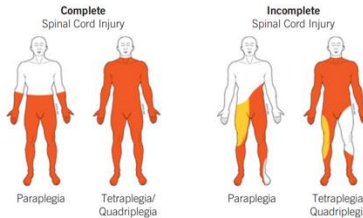
Sympathetic Nervous System (Fight or Flight)
Parasympathetic nervous system (rest and digest)
Control of Involuntary Function
Blood Pressure
Temperature Regulation
Heart Rate



WHAT HAPPENS WHEN THERE IS A SPINAL CORD INJURY?

There would be interruption in the signals to the brain from the body and the body to the brain.

It can be complete or incomplete Spinal Cord Injury





SPINAL CORD INJURY

WHAT CAN HAPPEN TO EACH PART OF THE BODY CORRESPONDING TO THE INJURY?

	Level of injury	Need help breathing with a ventilator in the hospital	Breath on my own over time	Move and feel my arms	Move and feel my hands	Move and feel my legs	Have control of my bowel and bladder
Neck/Cervical	C1-C4	Yes	Possibly	No	No	No	No
	C5	Possibly	Yes	Partially	No	No	No
	C6	Possibly	Yes	Partially	No	No	No
	C7	Possibly	Yes	Yes	Partially	No	No
	C8	Possibly	Yes	Yes	Yes	No	No
Chest/Thoracic	T 1-6	No	Yes	Yes	Yes	No	No
	T6-12	No	Yes	Yes	Yes	No	No
Waist & Pelvis/Lumbar	L1-5	No	Yes	Yes	Yes	Partially depending on whether injury is complete or incomplete	Partially depending on whether injury is complete or incomplete
Genit/Scrotal	S1-S5	No	Yes	Yes	Yes	Partially depending on whether injury is complete or incomplete	Partially depending on whether injury is complete or incomplete

HOW WILL I BE MANAGED IF I HAVE SPINAL CORD INJURY IN AN ACCIDENT?

You will be log rolled, placed in a collar and on a board in the emergency department until your condition is stable.





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In the hospital, you will have tests done to determine your injury. It can be xray, MRI, CT of your spine. Other tests might be done to determine the level of injury and other complications.

WILL I BE ON BODY BRACE?

To stabilize your spine and prevent further injuries, you might be placed on brace.

HOW DOES SCI AFFECTS THE BODY?

BREATHING

Your oxygen saturation will be monitored and more oxygen will be given either through a tube or a face mask connected to the oxygen source.

POTENTIAL PROBLEM WITH LUNGS AFTER INJURY

RESPIRATORY

Muscles for breathing might be weak or paralyzed depending on the level of the injury

You might need help from a ventilator.

Considering muscles are weak, it might be difficult for you to cough out secretions. Goal is to prevent pneumonia.

You would require suctioning and nebulizations to ease the secretions and make your breathing better, if you are breathing on your own. Otherwise, you might need the support of a mechanical ventilator.

There are cases that a tracheostomy (opening from your throat) will have to be done to facilitate easy access for breathing tube.

HEART AND BLOOD PRESSURE

When you have spinal cord injury, blood pressure might be lower than normal. Sometimes, patient might have ORTHOSTATIC HYPOTENSION, which is a drop in blood pressure once you get out of bed which can make you feel dizzy or even faint.

Anti Embolism Stockings, pneumatic compression device and medications will be used to prevent complications and raise your blood pressure to the normal level.



SCD (sequential compression device)

CARE

Regular skin assessment especially in your back areas, heels and bony prominences should be done to prevent skin injury or wound development.

You need regular turning every 1- 2 hours.

Special mattress might be used

Float heels with pillows or specialty boots



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MOVEMENT AND ACTIVITIES

Spasticity can develop overtime so daily stretching into full range of motion is important to be done by another person such as your Physical Therapist. A training plan would be tailored for you to help you get back on track. Pain medicines, supportive therapy would be helpful for your Quality of Life goals.

NUTRITION

With breathing tube, weakness in muscles, you will not be able to swallow food or drink liquids. A temporary or permanent feeding tube can be inserted to facilitate feeding. It is highly important that you get the right nutritional requirements as planned by your Dietitian and Physician. As you progress in the care, Speech Language Pathologist will help you see if you are ready to swallow or drink through the mouth.

BOWEL AND BLADDER MANAGEMENT

SCI can cause the bladder to be weak. If signals are blocked, brain wont be able to tell that the bladder is full so that it needs to contract and release the urine. You might need to have a tube inserted either temporarily or for longer periods to address this issue.

SCI can also cause you to lose sensation to control your bowel or feel when you would want to defecate. Physician might put you on a bowel protocol to facilitate regular emptying of your bowel.

Regular fluids, increase activity, fiber and good nutrition would help maintain regular bowel and bladder movement.

PAIN MANAGEMENT

Aching, throbbing, cold, burning, tingling, prickling and itching pain are common. This would be managed by your Physician and the medical team.



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WHAT HAPPENS NEXT AFTER THE ACUTE PHASE OF HOSPITALIZATION?

Case Coordinators will manage your transition to lower level of care.

HOW LONG WILL I BE HOSPITALIZED?

The length of stay depends on the severity of your condition. It can range from a few weeks or a couple of months.

WHY CANT I BE INDEPENDENT WITH SAME FUNCTIONS?

Because of spinal cord injuries and signals interrupted from the body to the brain and vice versa, some of important functions. The interdisciplinary team will help you be able to restore functions in an alternative way that you can manage with active therapies.

THE ROLE OF A FAMILY MEMBER

The role in recovery is very valuable and important. Full holistic support is needed by the injured family member and so are you. Educating yourself is the first step so you would minimize anxiety and unnecessary fears about your love ones condition. It is significant that you get yourself be aware and be able to clarify with the proper team on how to manage the care of your love ones and to care for your mental health too.

Reference:

Barrow Neurological Institute | Minding What Matters Most. https://www.barrowneuro.org/wp-content/uploads/SCI_Guidebook_Web_9-7-2021.pdf

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<https://capitalhealth.litmos.com/course/2181821/module/4952399/Scorm?LPId=82216&review=True>

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