

Difference Between Paraplegic and Quadriplegic

www.differencebetween.com

Key Difference – Paraplegic vs Quadriplegic

Paraplegia and quadriplegia are two **paralysis** conditions caused by damages to the **central nervous system**. **Paraplegia is the paralysis of the lower extremities of the body (below the waist) due to an injury to the spinal cord below the T1 level.** **Quadriplegia, on the other hand, is the paralysis of all four limbs including the trunk following an injury affecting the cervical spinal segments.** This is the key difference between paraplegic and quadriplegic.

What is Paraplegia?

Paraplegia is the paralysis of the lower extremities of the body because of an injury to the spinal cord below the T1 level. Paraplegics have the complete control over their arms and hands. The degree of paralysis of the lower extremities depends on the nature of the spinal injury. In some patients, both **sensory and motor** components are impaired while in some others only minor sensory impairments are manifested. An important fact to be emphasized is that the legs of a paraplegic patient are usually healthy and the pathology lies in either the brain or the spinal cord which fails to control the legs appropriately.

Paraplegia caused by some conditions can be transient. Therefore it is not a wise action to make a diagnosis of paraplegia immediately after an injury.

Causes of Paraplegia

- Trauma
- Iatrogenic causes
- **Strokes**
- Post partum **hemorrhage** or any other cause that decreases the perfusion to the brain and spinal cord
- Autoimmune disorders
- Hereditary causes
- **Meningitis, encephalitis** or other infections affecting the **central nervous system**
- Any tumors or pathological conditions in the adjacent structures that compress the brain or the spinal cord.



Figure 01: Paraplegia

Impact of Paraplegia on the Patient

- Paraplegia has a negative effect on the patient's mind set. As a physician, it is important to pay attention to the physical, mental and social well-being of the patient during the management.
- The loss of sensations increases the chance of mechanical injuries.
- Suppression of the immune system increases the likelihood of secondary infections.

Treatment of Paraplegia

- In most occasions, complete recovery from paraplegia cannot be expected.
- If possible, surgical interventions are attempted to correct the deformity at the site of injury.
- [Anticoagulants](#) and prophylactic drugs are given to minimize [thrombosis](#) and opportunistic infections respectively.
- Physiotherapy

What is Quadriplegia?

Quadriplegia is the paralysis of all four limbs including the trunk because of an injury affecting the cervical spinal segments. Similar to paraplegia, the limbs in quadriplegia are usually healthy, and the problem lies in the central nervous system.

Causes

- Trauma
- Iatrogenic causes
- Tumors and other pathological growths that compress the brain or the spinal cord
- Infections of the central nervous system
- Congenital causes

Impact of Quadriplegia on the Body

- Mental instability
- Urinary and fecal incontinence
- Secondary infections
- Chronic pain
- Spasticity and fasciculations
- Sexual dysfunction
- Weight gain

How to Take Care of a Paraplegic or a Quadriplegic patient?

- **Bladder management** – Initially the patient has no control over the [bladder](#), and this results in urinary incontinence. Eventually, the patient develops reflex bladder emptying by adjusting the abdominal pressure. But the bladder is not completely emptied most of the time leading to urinary retention. This increases the risk of [urinary tract infections](#) and [chronic kidney failure](#).
- **Bowel function** – Manual evacuation of the bladder content is required immediately after the onset of the condition. The patient develops reflex emptying with time.
- **Skin care** – Regular turning and cleanliness are extremely important to prevent the occurrence of bed sores which can have fatal consequences.

- **Lower limbs** – Passive physiotherapy is given to prevent the development of contractures. Muscle spasticity and fasciculations can be minimized by the administration of muscle relaxants such as baclofen.
- **Rehabilitation** –Special facilities are available nowadays to empower the affected individuals to carry out their day to day activities by themselves.This aims at improving the confidence of the patient.

What are the similarities between Paraplegia and Quadriplegia?

- Both conditions are due to the damages to the central nervous system that results in the loss of control over the limbs and torso.
- Both paraplegia and quadriplegia have a negative impact on the patient’s mentality.

What is the difference between Paraplegia and Quadriplegia?

Horizontal vs Vertical Gel Electrophoresis	
Paraplegia is the paralysis of the lower extremities of the body (below the waist) due to an injury to the spinal cord below the T1 level.	Quadriplegia is the paralysis of all four limbs including the trunk following an injury affecting the cervical spinal segments.
Affected Area	
Only the lower extremities (below the waist line) are affected.	All four limbs including the torso are affected.
Causes	
Paraplegia is usually because of an injury affecting the spinal segments below T1 level.	Quadriplegia is because of an injury affecting the cervical spinal segments.

Summary – Paraplegia vs Quadriplegia

Paraplegia is the paralysis of the lower extremities of the body following an injury to the brain or the spinal cord below the T1 level. Quadriplegia is the paralysis of both upper limbs and lower limbs including the torso due to an injury to the brain or the cervical segments of the spinal cord. This is the main difference between paraplegia and quadriplegia. Although these conditions are not curable most of the time, the patients' standard of living can be immensely improved to give them the confidence to look at the future hopefully.

References:

1. Kumar, Parveen J., and Michael L. Clark. Kumar & Clark clinical medicine. Edinburgh: W.B. Saunders, 2009. Print.

Image Courtesy:

1. "Paraplexia paraplegia" By Luis Miguel Bugallo Sánchez (Lmbuga Commons)(Lmbuga Galipedia) – Commons. (CC BY-SA 3.0) via [Commons Wikimedia](#)

How to Cite this Article?

APA: Difference Between Paraplegic and Quadriplegic. (2017, September 01). Retrieved (date), from <http://differencebetween.com/difference-between-paraplegic-and-vs-quadriplegic/>

MLA: "Difference Between Paraplegic and Quadriplegic" *Difference Between.Com*. 01 September 2017. Web.

Chicago: "Difference Between Paraplegic and Quadriplegic." *Difference Between.Com*. <http://differencebetween.com/difference-between-paraplegic-and-vs-quadriplegic/> accessed (accessed [date]).



Copyright © 2010-2017 Difference Between. All rights reserved