

# Neurological Aspects in Physiotherapy Rehabilitation

**Paula Maria Martini\***

Department of Physiotherapy, University of Guanajuato, Mexico, North America

**Received:** November 09, 2021; **Accepted:** November 21, 2021; **Published:** November 28, 2021

**\*Corresponding author:**

Paula Maria Martini

✉ malarvizh23@gmail.com

Department of Physiotherapy, University of Guanajuato, Mexico, North America.

**Citation:** Martini PM (2021) Neurological Aspects in Physiotherapy Rehabilitation. J Physiother Res Vol.5 No.11:55

## Brief Report

Patients with nervous system or neurological illnesses may benefit from neurological rehabilitation. The goal of rehabilitation is to improve a patient's function, decrease debilitating symptoms, and improve their quality of life. The forms of rehabilitation treatments that are prescribed are determined by the bodily parts that are impacted by the neurological illness.

The concept behind neuro rehabilitation is that motor learning aids in motor recovery after an injury. Little is understood, however, about how brain injury affects learning, how learning mechanisms interact with spontaneous biological healing, and how to best incorporate learning principles into rehabilitation training procedures.

We identify two types of motor learning, adaptation and skill acquisition, and explain their implications for neurorehabilitation. Resolution of impairment (reacquisition of premorbid movement patterns) and compensation (employment of alternate motions or effectors to achieve the same goal) are two types of functional recovery that respond to training procedures. Rather than focusing on the elimination of impairment, modern neurorehabilitation approach focuses on achieving quick independence in daily activities through compensatory methods.

Animal models, on the other hand, reveal that after focal ischemia damage, there is a small window of increased plasticity (around 3–4 weeks) that, when combined with training protocols, leads to considerable increases in motor function. In humans, practically all recovery from damage occurs in the first three months after a stroke, suggesting that targeting impairment during this time window with intensive motor learning protocols could result in gains in function equivalent to those reported in animal models in terms of effect size.

## Symptoms

Any patient with a neurological ailment who receives a prescription or order from a doctor may be referred for rehabilitation.

The following symptoms may indicate the need for neurological rehabilitation:

- Pain
- Difficulty walking

- Muscle weakness and altered muscle tone
- Difficulties with daily tasks such as dressing, showering, and toileting
- Having trouble swallowing
- Difficulty in communicating
- Impaired thinking, memory, and problem-solving abilities
- Vision or eye-hand coordination problems

## Diagnosis

Patients with the following diagnoses, but not limited to, may benefit from neurological rehabilitation:

- Aneurysm
- Amyotrophic Lateral Sclerosis (ALS)
- Brain Injury
- Tumor of the brain
- Charcot-Marie-Tooth disease (CMT)
- Hemorrhage in the brain
- Neurological Congenital Disorders
- Diabetic Neuropathy is a condition that occurs when a person has diabetes.
- Dystonia
- Encephalitis
- Epilepsy

- Disc Herniation
- Meningitis
- Memory Problems
- Movement Disturbances

### Multiple Sclerosis (MS)

Muscular Dystrophy (MD) is a type of muscular dystrophy that affects

- Neurofibromatosis
- Disorders of the Neuromuscular System
- Parkinson's ailment
- Stroke
- Injury to the spinal cord
- Treatment

While a patient's primary care medical team will still be present, the rehabilitation team will give extra treatments and therapies. The rehabilitation team is made up of highly trained specialists that are dedicated to meeting the individual needs of each patient. Following an evaluation, the best suited treatment plan for each patient is devised. Some of the following team members may be involved in neurological rehabilitation:

Doctors that specialise in physical medicine and rehabilitation are known as physiatrists.

Patients see neuropsychologists for cognitive and/or behavioural difficulties resulting from a brain damage, stroke, or other illness. They also work with individuals who require assistance adjusting to changes in their abilities. They might suggest cognitive therapy, relaxation techniques, or other treatments.

Physical therapists assist and treat patients who are suffering from pain or have lost strength, range of motion, balance, or coordination as a result of a disease or injury. Their mission is to help people regain and retain their capacity to move and do physical duties.

Patients' ability to perform daily chores such as eating, dressing, toileting, and bathing is assessed by occupational therapists. Their purpose is to assist patients in doing as much as possible on their own. As directed by the physician, occupational therapists can undertake vision evaluations.

Speech-language pathologists help people with speech and thinking difficulties. These issues are typical in people who have had a stroke, a brain injury, or other nervous system alterations. Patients who have trouble swallowing are also treated by speech-language pathologists.

Therapeutic recreation specialists assist patients in pursuing or developing new leisure activities. They give assistance and community involvement opportunities that patients can continue after they leave the inpatient rehabilitation programme.