

Stimulating Brain Neuroplasticity through Walking

Ekso™ Bionic Exoskeleton

The Ekso™ Bionic exoskeleton is a battery-operated device consisting of an outer framework, worn by the patient, and powered by a system of motors that enables individuals with lower extremity weakness or paralysis to stand and walk on level surfaces.

How does the Ekso™ Work?

- The Ekso™ can be used as part of a therapy plan to retrain walking through repetitive patterning. With a therapist's assistance, patients learn how to balance and weight shift when wearing the exoskeleton so an efficient, reciprocal gait pattern can be practiced and re-learned.
- For patients who are unable to walk, successful training in the exoskeleton may result in greater functional independence at home.

What are the benefits of the Ekso™:

The Ekso™ can be used to stimulate brain neuroplasticity, re-educate muscles, increase muscle strength, improve range of motion, and increase blood circulation. The technology has been shown to improve the walking ability for people living with spinal cord injury, multiple sclerosis, stroke, brain injury, Guillain-Barré and general lower-extremity weakness or paralysis.

Patients must be screened by a specially trained therapist before using exoskeleton technology. Factors such as medical status, weight, height, and presence of spasticity are considered in determining if the patient would benefit from use of an exoskeleton.



Assistive
Rehabilitation
Technology Institute

The **Marianjoy Assistive Rehabilitation Technology Institute** offers solutions to everyday problems of daily living encountered by individuals with disabilities. The Institute consists of seven distinct centers which apply advancements in technology to benefit individuals with disabilities through maximizing functional independence, as well as expanding educational, vocational, recreational, and communicative opportunities.

- **Assistive Communication and Daily Living Center**
- **Balance and Vestibular Center**
- **Driver Rehabilitation Center**
- **Gait Analysis and Mobility Center**
- **Prosthetic and Orthotic Center**
- **Swallowing and Voice Center**
- **Wheelchair and Positioning Center**



To make an appointment or
for more information, call

630-909-7150

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