

WalkAide®

The WalkAide® is a medical device that combines functional electrical stimulation (FES) to improve the walking ability of people living with foot-drop. The WalkAide® is also utilized as a neurorehabilitation tool by clinicians.

Individuals who may benefit from the WalkAide® include those who exhibit footdrop due to brain/spinal diseases or trauma, such as:

- Stroke
- Multiple sclerosis
- Spinal cord injury
- Traumatic brain injury
- Brain tumor
- Cerebral palsy
- Injury to the central nervous system

How does the WalkAide® work?

Footdrop is a weakness or paralysis of the muscles that are involved in lifting the front part of the foot, causing the person to drag the toe of the shoe or slap the foot on the floor. The WalkAide® uses FES to restore typical nerve activity to muscle signals in the leg and foot, effectively lifting the foot at the appropriate time. Using tilt-sensor technology to analyze the movement of the leg, the WalkAide® adjusts the timing of stimulation for every step. The system electrically stimulates the peroneal nerve, which activates the muscles to raise the foot at the appropriate time.

What are the advantages of using the WalkAide®?

- It can replace traditional ankle-foot orthoses that can be uncomfortable and a potential source for skin breakdown.
- It can reengage existing nerve pathways and muscles without limiting range of motion at the ankle.
- By recruiting existing muscles, the WalkAide® can reduce atrophy and muscle fatigue.
- Easy one-handed application and operation is possible for the WalkAide®.



MARIANJOY

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 that 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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