



Redefining NeuroRehab

MyndMove™ Fact Sheet

Overview

MyndMove™ is a non-invasive functional electrical stimulation (FES) therapy for the treatment of arm and hand paralysis due to a stroke or spinal cord injury. Functional electrical stimulation (FES) is the application of electrical stimulation to a paralyzed nerve or muscle to restore or achieve function. The goal of neurorehabilitation is to enable early return to independence in activities of daily living. MyndMove™ therapy delivers significant lasting voluntary upper extremity function to maximize independence and enhance quality of life. **MyndMove™** is manufactured by MyndTec Inc., a privately held medical technology company located in Mississauga, Ontario, Canada.

MyndMove Therapy is approved for commercial use in the USA and Canada.

Benefits of MyndMove™

- **MyndMove™** therapy treats the entire arm from shoulder to fingers. **MyndMove™** therapy leverages the concept of neuroplasticity creating new neural pathways enabling the voluntary movement of the muscles needed to move the paralyzed limb.
- **MyndMove™** therapy retrains the brain to move the arm, hands and fingers, so individuals can do activities of daily living such as feeding, dressing, bathing, grooming and toileting more independently and with greater confidence. Improved independence translates into reduced costs and has widely reported psychological benefits.

Clinical Trial Results

MyndMove™ is the culmination of years of laboratory and clinical research by Dr. Milos R. Popovic, Toronto Rehab Chair in Spinal Cord Injury Research at the Toronto Rehab Institute - University Health Network, and professor at the Institute of Biomaterials and Biomedical Engineering at the University of Toronto.

Three randomized control trials, two looking at Spinal Cord Injury (SCI)³ and one looking at stroke patients^{1,2}, examined the effect of FES therapy using the MyndMove™ protocols. These studies found that patients who underwent 40 one-hour long sessions, 5 times per week over an 8-12 week period, demonstrated significant and lasting recovery of voluntary arm and hand movement. Patients participating in these studies represented those with some of the most severe deficits in motor function. This ground-breaking, desperately needed therapy for upper body paralysis is delivered by specially trained physical and occupational therapists.

Approved Indications:

MyndMove™ is an electrical stimulation device indicated for the following uses:

1. Functional Electrical Stimulation (FES): Improvement of arm and hand function and active range of motion in patients with hemiplegia due to stroke or upper limb paralysis due to C3-T1 spinal cord injury.
2. NeuroMuscular Electrical Stimulation (NMES):
 - i. maintenance and/or increase of arm and hand range of motion,
 - ii. prevention and/or retardation of disuse atrophy,
 - iii. increase in local blood circulation
 - iv. reduction in muscle spasm, and
 - v. re-education of muscles.
3. MyndMove™ Therapy can only be administered by Trained MyndMove™ Therapists who are physical and occupational therapists and also licensed or certified physical therapist assistants (PTAs) and occupational therapy assistants (OTAs) under their supervision who have completed MyndMove™ training, by MyndTec, on the use of the MyndMove™ system.

Facts and Figures: According to the Centers for Disease Control and Prevention

Stroke is a leading cause of serious long-term disability. Stroke reduces mobility in more than half of stroke survivors age 65 and over.^{4,5}

Stroke costs the United States an estimated \$34 billion each year. This total includes the cost of health care services, medicines to treat stroke, and missed days of work.^{4,5}

An estimated 2.5 million people in the US currently live with moderate to severe mobility impairment of their arm and hand following a stroke or SCI. Every year, an additional **795,000 people** in the United States experience a stroke⁴ and 40% of these individuals will have persisting moderate to severe impairment.

MyndMove

1. Improves Function
2. Maximizes Independence
3. Enhances Quality of Life

Media Contact

If you are a member of the media and you require more information from MyndTec Inc., please contact us, at **1-888-363-0581** or info@myndtec.com.

References

1. Popovic, M., Kapadia, N., Zivanovic, V., Furlan, J., Craven, B. C., McGillivray, C. Functional Electrical Stimulation Therapy of Voluntary Grasping Versus only Conventional Rehabilitation for Patients with Subacute Incomplete Tetraplegia: A Randomized Clinical Trial. *Neurorehabilitation and Neural Repair*. 2011;25:5-433.
2. Thrasher TA., Zivanovic V., Mclroy W., Popovic MR., Rehabilitation of Reaching and Grasping Function in Severe Hemiplegic Patients Using Functional Electrical Stimulation Therapy. *Neurorehabilitation and Neural Repair*. 2008;22:706-14.
3. Marquez-Chin, C., Bagher, S., Zivanovic, V., Popovic, MR. Functional electrical stimulation therapy for severe hemiplegia: Randomized control trial revisited. *Canadian Journal of Occupational Therapy*. 2017;84(2):87-97
4. Benjamin EJ, Blaha MJ, Chiuve SE, et al. on behalf of the American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics—2017 update: a report from the American Heart Association. *Circulation*. 2017
5. Stroke Facts. Centers for Disease Control and Prevention. January 31, 2020. Content source: National Center for Chronic Disease Prevention and Health Promotion, Division for Heart Disease and Stroke Prevention. Retrieved on April 29, 2020 from: <https://www.cdc.gov/stroke/facts.htm>