# MyndMove Redefining NeuroRehab





MyndMove<sup>™</sup> therapy delivers significant lasting voluntary upper extremity function to maximize independence and enhance quality of life. Designed for patients with upper-limb paralysis following stroke, spinal cord or other neurological injury, MyndMove<sup>™</sup> is a non-invasive functional electrical stimulation (FES) therapy.

The unique waveform shape and stimulation parameters generated by our proprietary device make the FES treatment well tolerated. Robust muscle contractions can be obtained with less power resulting in greater comfort for the patient and enhanced therapeutic compliance.

MyndMove<sup>™</sup> FES therapy has 8 channels and over 30 embedded protocols that allow clinicians to stimulate natural, purposeful, functional movements in patients. This dynamic therapy can treat the whole arm from shoulder to fingers. Combinations of reaching & grasping include:

- Lateral pinch
- Lumbrical grasp

**Bilateral grasp** 

- Pinch grasp
  - Palmar grasp
- Forward reach
- Tripod grasp
- Side reach

MyndMove was developed based on a culmination of over a decade of laboratory and clinical research led by Dr. Milos Popovic, director of the KITE Research Institute, Toronto Rehabilitation Institute-University Health Network and professor at University of Toronto, Canada.



## **Clinical Evidence**

The randomized controlled trials (RCT) examined the effect of FES therapy using the MyndMove<sup>™</sup> protocols. These trials demonstrated significant and lasting recovery of voluntary arm and hand movement. Patients participating in these trials represented those with some of the most severe deficits in motor function. The effectiveness of MyndMove to improve arm and hand function have been studied in:

- individuals with C3-C7 incomplete SCI
- individuals with severe hemiplegia due to stroke

### **RCT: Stroke Rehabilitation**

**Design**: Patients with severe upper extremity paralysis underwent 1 hour sessions of FES therapy (MyndMove<sup>™</sup>) or Conventional Occupational Therapy (Control) for 5 days a week for 12-16 weeks.

Results: MyndMove™ FES group improved significantly more than patients undergoing conventional occupational therapy for the same timeframe in: object manipulation, Barthel Index, Self-Care Functional Independence Measure (pictured), and Upper Extremity Fugl-Meyer scores.

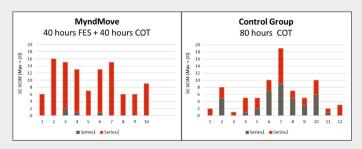
#### **RCT: SCI Rehabilitation**

**Design**: Patients underwent 40 hours of FES therapy (MyndMove<sup>™</sup>) + 40 hours of Conventional Occupational Therapy (COT) or 80 hours of COT (Control) for 5 days a week for 8 weeks.

**Results**: MyndMove<sup>™</sup> FES group improved significantly more than patients in the conventional occupational therapy group in self-care SCIM scores. Studies have demonstrated that FES therapy using MyndMove<sup>™</sup> protocols can lead to lasting recovery of upper extremity function.

Self Care- FIM™	CONTROL (n=11)		MyndMove (n=10)	
	Before	After	Before	After
31 - 42				<b>ŤŤŤŤŤ</b>
21 - 30		<b>ŤŤŤŤ</b>		<b>ŤŤŤŤŤ</b>
11 - 20	<b>ŤŤŤŤ</b>	<b>ŤŤŤŤ</b>	ŤŤ	
6 - 10	<u>ŧŧŧŧŧ</u> ŧ	<b>ŤŤŤ</b>	<b>ŤŤŤŤŤŤŤ</b> Ť	

Thrasher, et al. (2008) Rehabilitation of reaching and grasping function in severe hemiplegic patients using functional electrical stimulation therapy.



Popovic, et al. (2011) Functional electrical stimulation therapy of voluntary grasping versus only conventional rehabilitation for patients with sub-acute incomplete tetraplegia: a randomized clinical trial.

### **Indications For Use**

**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.

**NeuroMuscular Electrical Stimulation (NMES)** Maintenance and/or increase of arm and hand range of motion; prevention and/or retardation of disuse atrophy; increase in local blood circulation; reduction of muscle spasm; and re-education of muscles. **MyndMove<sup>™</sup> therapy** can only be administered by Occupational or Physical Therapists that have completed MyndMove<sup>™</sup> training by MyndTec on the use of the MyndMove<sup>™</sup> System.

www.myndtec.com 1-905-363-0571







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