# Pain Reducing Properties of the Mollii Suit on Adults with Chronic Pain Syndromes





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## Background

The Mollii suit, a garment with 58 built in electrodes, provides transcutaneous electrical stimulation to selected regions across the body. The stimulation induces pain inhibiting mechanisms in the central nervous system (CNS) and affects neurohormonal levels, leading to modulation of the CNS through activation of sensory afferent pathways. It is an approved non-pharmacological, non-invasive treatment to reduce spasticity and improve motor function in individuals with CNS lesions. Anecdotal evidence shows benefit in individuals with chronic pain syndromes.

#### Results

VAS-0 was 6.5±1.24. A highly significant drop was noted in VAS-1 (3.46±1.4) and VAS-24, (4.72±1.68), paired test p-values <0.001. A mixed-effect model, used to assess VAS change while controlling for sex, age, and diagnosis type, showed a significant drop in



VAS-1 and VAS-24.

The VAS-1 coefficient was -3.036 (p<0.001) while the VAS-24 coefficient was -1.789 (p<0.001). The results were not affected by the diagnoses, age or sex of the patient.

	Coefficient	95% Conf.Int.	Std. Error	p-value
(Intercept)	5.414	4.182,6.647	0.642	<0.0001
VAS1	-3.037	-3.206,-2.868	0.086	<0.0001
VASA24	-1.789	-1.981,-1.598	0.097	<0.0001
Age	0.021	-0.002 , 0.044	0.012	0.081
Gender:Female	0.230	-0.450,0.911	0.354	0.516
CFS	-0.799	-1.938,0.340	0.587	0.175
FM	-0.208	-1.117,0.701	0.474	0.661
HSP	-0.858	-1.747,0.032	0.460	0.064
MS	0.206	-0.866,1.279	0.561	0.713
Neuralgia	-1.047	-2.882,0.790	0.932	0.263
Parkinson	-0.599	-1.496,0.298	0.464	0.198
PTSD	0.319	-0.479,1.116	0.413	0.441
Stroke	0.077	-0.725,0.880	0.418	0.853

## **Objectives**

Investigate the Mollii Suit effect on pain in adults with different pain diagnosis.

### **Material & Methods**

An open-label uncontrolled study included 200 adults who used Mollii suit therapy for one-hour. 74 were diagnosed with Fibromyalgia, 29 with Parkinson, while other diagnosis had a frequency < 20. 7 patients whose diagnosis type occured only once were excluded from the study. Patients (Male: 75, Female: 118) were asked to fill a Visual Analogue Scale (VAS) just before the intervention (VAS-0), immediately afterwards (VAS-1) and twenty-four hours (VAS-24) later.



## Conclusion

Wearing the Mollii suit for 1 hour demonstrated significant subjective improvements in VAS scores. Placebo controlled studies are needed to further prove the efficacy of Mollii suit in treatment of pain.

