



Recent Findings Regarding the Efficacy of functional electrical stimulation in patients with chronic hemiplegia and multiple sclerosis: a narrative literature review.

Stevens P, Hunsaker RB.

In recent years, numerous studies have reported the effect of FES in the management of foot drop. The purpose of this article is to review these latest findings according to both the diagnosis and various functional domains of the individual clinical trials. These findings support the assertion that FES systems facilitate both immediate and extended improvements in gait velocity across both smooth and irregular surfaces in patients with chronic hemiparesis. In addition, beneficial effects on the symmetry and rhythmicity of gait, along with positive “therapeutic” or “carry-over” effects, have been identified. Patient-derived data indicated high acceptance rate and may provide further insight into what aspects of FES usage are perceived by patients to be most beneficial. Any empirical advantage of FES systems over ankle-foot orthoses for patients with chronic hemiparesis seem to require a degree of acclimation to the FES intervention. Recent evidence supports the efficacy of an orthotic effect associated with the use of FES during both short-distance and endurance walking events among patients with more debilitating MS. In contrast, the use of FES by less debilitated patients with MS does not seem to increase the speed of short-distance walking events. To the limited extent that I has been investigated, there is no apparent evidence of a therapeutic or carry-over effect associated with FES among the more debilitation forms of MS. This has not been investigated among the more functional walkers with MS.

Stevens P, Hunsaker RB. Recent Findings Regarding the Efficacy of functional electrical stimulation in patients with chronic hemiplegia and multiple sclerosis: a narrative literature review. *J Prosthet Orthot.* 2010;22:166-171