Medical Benefits of the ERGYS and REGYS FES* Leg-Cycle Ergometers: A Survey of Published Clinical Studies


**Conclusion:** One year of electrically induced cycle training can reverse several of the inactivity associated changes seen after SCI. Among the changes noted were a 12% growth in the stimulated muscle and a six-fold work performance increase accompanied by a 23% increase in maximal oxygen uptake. [REGYS]


**Conclusion:** Tetraplegic persons conditioned by electrically stimulated cycling have greater lower extremity blood flow and hyperemic responses to occlusion than do their sedentary counterparts. [ERGYS]


**Conclusion:** Two-time per week NMES leg cycle training program will also result in significant increases in exercise tolerance and cardiorespiratory capacity in persons with SCI (compared with three times per week). [REGYS]


**Conclusion:** 30 weeks of FNS exercise training led to significant increases in beta endorphin-like immunoreactivity, improved regulation of cortisol, and improved scores on a depression index. [REGYS, ERGYS]

**Conclusion:** Six months of exercise led to significant increases in left ventricular internal dimension and intraventricular septal and posterior wall thicknesses in quadriplegics. [ERGYS]


**Conclusion:** When the lower motor neuron system is intact, paraplegics and quadriplegics can perform substantial exercise through the use of computerized functional electrical stimulation. Many of the effects of physical inactivity experienced after SCI may be reversed by FES intervention. [REGYS, ERGYS]


**Conclusion:** Despite the existence of sympathetic impairment, 30 minutes of FES leg-cycle exercise in a controlled environment does not result in inappropriate physiologic responses in SCI individuals. [ERGYS]


**Conclusion:** A majority of SCI subjects indicated improved self-image and perceived their appearance to be better following training. [ERGYS]