

Roland, et al. 2000. Pulsed Magnetic Energy on a Microsurgically Transferred Vessel. *Plast. Reconstr. Surg* 105:1371.

This article reports the findings of a study that attempted to elucidate whether pulsed magnetic energy stimulates neovascularization in vivo, using a microsurgically created arterial loop model in a prospective randomized trial of 108 rats (n = 12/group). Pulsed magnetic energies of 0.1 and 2.0 gauss were applied immediately postoperatively and for 4, 8, and 12 weeks, respectively, with a statistically significant increase in neovascularization among the treated animals (500% increase compared with control rats). The study provides a starting point for future study and evaluation of the stimulation of angiogenesis with the use of pulsed magnetic energy and suggests a possible use of this modality to increase the quality of revascularized tissue.