

Clinical evaluation of pulsed electromagnetic field treatment for acute scaphoid fractures

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INNOVATION AND FUTURE

The clinical effects of PEMF bone growth stimulation have featured in the literature since 1977.⁸ An invention can only be considered an innovation if it is widely adopted in practice and has an impact on society. In other words: innovation also implies the large-scale implementation of a novel application of existing scientific knowledge. However, the number of studies reporting on the efficacy of PEMF bone growth stimulation in acute fractures is very limited.⁹ Given this dearth of evidence, the use of PEMF in the treatment of acute fractures is not recommended. However, if the required evidence is forthcoming in the future, this technology could come to be used on a larger scale. The studies described in this thesis are the first to evaluate the effect of PEMF in acute scaphoid fractures. Although the desired effects in terms of cost-effectiveness and efficacy were not achieved, our studies offer new insights into the applicability of PEMF in acute fractures, and the data obtained will serve as the basis for further research.