

Rintala, D. H., Tan, G., Willson, P., Bryant, M. S., and Lai, E. C. H. (2009). Feasibility of using cranial electrotherapy stimulation for pain in persons with Parkinson's disease. *Parkinson's Disease*. 8 pages, 2010.

Objectives. To assess the feasibility of treating musculoskeletal pain in the lower back and/or lower extremities in persons with Parkinson's disease (PD) with cranial electrotherapy stimulation (CES). **Design.** Randomized, controlled, double-blind trial. **Setting.** Veterans Affairs Medical Center, Community. **Participants.** Nineteen persons with PD and pain in the lower back and/or lower extremities. Thirteen provided daily pain rating data. **Intervention.** Of the thirteen participants who provided daily pain data, 6 were randomly provided with active CES devices and 7 with sham devices to use at home 40 minutes per day for six weeks. They recorded their pain ratings on a 0-to-10 scale immediately before and after each session. **Main Outcome Measure.** Average daily change in pain intensity. **Results.** Persons receiving active CES had, on average, a 1.14-point decrease in pain compared with a 0.23-point decrease for those receiving sham CES (Wilcoxon $Z = -2.20$, $P = .028$). **Conclusion.** Use of CES at home by persons with PD is feasible and may be somewhat helpful in decreasing pain. A larger study is needed to determine the characteristics of persons who may experience meaningful pain reduction with CES. Guidelines for future studies are provided.

