



<b>Title</b>	<b>Accelerated Systematic Review of Spinal Cord Stimulation (Neurostimulation)</b>
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## Aim

To assess the effectiveness and safety of spinal cord stimulation (neurostimulation).

(RCTs) comparing SCS with an alternative treatment, placebo, or no treatment. RCTs were included if they reported pain or pain relief as an outcome.

## Conclusions and results

Spinal cord stimulation (SCS) was shown to be effective in relieving pain in only some of the included studies, but the small patient numbers may have limited the ability of studies to detect clinically important differences. SCS appears to be relatively safe, although the long-term safety and effectiveness of SCS have not yet been evaluated.

Nine RCTs of spinal cord stimulation covering five indications were included – four angina trials, one failed back surgery syndrome, two critical limb ischemia, one complex regional pain syndrome, and one painful diabetic neuropathy. SCS was more effective in terms of pain relief or reducing anginal attacks when compared with placebo or delayed implantation, but no difference was found in the comparisons with CABG or switching SCS on and off in the same patient. For critical limb ischemia, SCS was more effective in relieving pain than analgesia alone, but no difference was found when SCS plus best medical treatment was compared with best medical treatment alone. For complex regional pain syndrome, SCS was more effective in relieving pain than physiotherapy, but no difference was found between SCS and placebo for painful diabetic neuropathy. The most frequently reported complications were electrode or lead displacements, which required reintervention and repositioning, although these complications are decreasing as the technology improves. A small number of implant and battery failures have been noted, as has one duodenal perforation and two dural punctures. Infection at the implant site appears to be relatively common.

## Methods

MEDLINE and PreMEDLINE were searched up to April 2003, and the Cochrane Library Issue 2, 2003 was searched for reports of randomized controlled trials