

Acupuncture for Spinal Cord Injuries

Editorial Staff

In the United States, [spinal cord injuries](#) (SCIs) affect approximately 250,000 individuals, with an estimated 12,000 individuals sustaining these injuries a year. Decades of research has been dedicated to the development of medical treatments that enhance short- and long-term survival from these injuries, along with improved understanding and pathophysiology of spinal cord injury, the most devastating sequelae of spinal trauma.

Aside from just the physical complications of spinal cord injuries, the estimated **medical costs are astronomical**. The lifetime medical costs for a 25-year-old with high (C1-C4 region of the spine) quadriplegia is more than \$3 million and for those with incomplete spinal cord injury (i.e., some motor function is retained), the amount is \$680,000. Furthermore, lost wages, fringe benefits and productivity can add up to another annual \$62,000 in lost dollars.

Now, however, acupuncture may help reduce some of those devastating costs. In a [recent study](#), "Acupuncture's Effects in Treating the Sequelae of Acute and Chronic Spinal Cord Injuries: A Review of Allopathic and Traditional Chinese Medicine Literature," published in *Evidence-Based Complementary and Alternative Medicine*, acupuncture treatment was shown to significantly improve long-term recovery following an SCI. Peter T. Dorsher and Peter M. McIntosh of the Mayo Clinic in Jacksonville, Fla., conducted a review of 10 studies that reported on acupuncture as a treatment for spinal cord injury, in order to draw conclusions on efficacy from a larger patient pool. Two studies looked at all SCI problems, three looked at bladder problems, three looked at pain issues, and one looked at [dysreflexia](#) (spasms that raise blood pressure and may lead to stroke).

In looking at various complications that may arise after a spinal cord injury, the researchers stated, "There is evidence that use of electro-acupuncture in acute spinal cord injured subjects may significantly improve their long-term neurologic recovery including motor, sensory and bowel/bladder function. Acupuncture may even improve neurourologic function in spinal cord injured individuals with chronic neurogenic bladder, and may also be a useful adjunct in the management of their chronic neuropathic and musculoskeletal pain conditions. ... Though those retrospective studies do not provide the detailed patient or methodologic data that would permit rigorous scientific conclusions of acupuncture's effects in treating the sequelae of acute and chronic SCIs, they do provide important guidance on TCM concepts and point selections recommended by experts for treating the sequelae of SCI."

The researchers further speculated upon the possible mechanism for how acupuncture may be of benefit, noting, "The acupuncture effects appear to result from stimulation of appropriate spinal cord segmental levels or peripheral nerves, and the known release of endogenous opioids at the spinal cord level produced by acupuncture treatment and electrical stimulation of peripheral nerves provides a plausible mechanism for its effects in pain relief and limiting SCI after acute trauma."

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