

Guideline: Widely used device for pain therapy not recommended for chronic low back pain

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A new guideline issued by the American Academy of Neurology finds that transcutaneous electric nerve stimulation (TENS), a widely used pain therapy involving a portable device, is not recommended to treat chronic low-back pain -- pain that has persisted for three months or longer -- because research shows it is not effective. The guideline is published in the December 30, 2009, online issue of *Neurology*, the medical journal of the American Academy of Neurology.

The guideline determined that TENS can be effective in treating diabetic nerve [pain](#), also called diabetic neuropathy, but more and better research is needed to compare TENS to other treatments for this type of pain.

Research on TENS for chronic low-back pain has produced conflicting results. For the guideline, the authors reviewed all of the evidence for low-back pain lasting three months or longer. Acute low-back pain was not studied. The studies to date show that TENS does not help with chronic low-back pain.

All but one of the studies excluded people with known causes of low-back pain, such as a pinched nerve, severe scoliosis (curving of the spine), severe spondylolisthesis (displacement of a backbone or vertebra) or obesity. In the one study that looked at low-back pain associated with known conditions, TENS was not shown to be effective. The only specific neurologic cause of chronic low-back pain where TENS was

studied was [multiple sclerosis](#), and TENS was not shown to help.

"The strongest evidence showed that there is no benefit for people using TENS for chronic low-back pain," said guideline author Richard M. Dubinsky, MD, MPH, of Kansas University Medical Center in Kansas City and a Fellow of the American Academy of Neurology. "Doctors should use clinical judgment regarding TENS use for chronic low-back pain. People who are currently using TENS for their [low-back pain](#) should discuss these findings with their doctors."

Dubinsky stated further that good evidence showed that TENS can be effective in treating diabetic nerve pain.

With TENS, a portable, pocket-sized unit applies a mild electrical current to the nerves through electrodes. TENS has been used for pain relief in various disorders for years. Researchers do not know how TENS may provide relief for pain. One theory is that nerves can only carry one signal at a time. The TENS stimulation may confuse the brain and block the real pain signal from getting through.

Back pain—both acute and chronic—is the second most common neurologic ailment in the United States, according to the National Institute of Neurological Disorders and Stroke, and is the most common cause of job-related disability. About 60 percent of people with diabetes will develop neuropathy.

Provided by American Academy of Neurology

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