



# PAIN MANAGEMENT

*VA is working to develop new approaches to alleviate Veterans' pain, which may result from spinal cord injury, burns, amputations, traumatic brain injury, cancer, arthritis, or any number of other conditions. VA's research portfolio in this area covers a remarkably wide range of topics, from drug discovery to alternative treatments such as yoga or massage. VA investigators are also leaders in studying the impact of pain on daily function and quality of life.*

## EXAMPLES OF VA RESEARCH ADVANCES

**NEW TARGETS FOR PAIN RELIEF**—Durham VA researchers and colleagues at Duke University Medical Center are exploring brain chemicals that seem linked to chronic pain. The group assessed the levels of five neurosteroids in 90 Veterans who had low back pain, chest pain, muscle soreness, or headache. Neurosteroids are brain chemicals that affect the actions of many neurotransmitters. The group found that allopregnanolone levels were lower in people with more severe low back pain and chest pain. Another neurosteroid, DHEA, was found at lower levels in people with more muscle soreness. And a third chemical, DHEAS, was found at higher levels in people with chest pain. The Durham team is also involved in studies of neurosteroids and their roles in schizophrenia, posttraumatic stress disorder and traumatic brain injury. If further research clarifies the role of neurosteroids in pain symptoms, the chemicals could be targets for pain-relief therapy.

**CRANIAL STIMULATION**—Cranial electrotherapy stimulation (CES) may help to relieve chronic nerve pain in people with spinal cord injuries. Currently, there is no reliable treatment for such pain. A Houston VA team assigned study participants to six months of CES or six months of sham stimulation. The treatments were given for 21 days and lasted one hour each day. They involved running a small amount of electrical current through electrodes clipped to each ear. The group receiving CES felt more pain relief. Other studies have suggested that CES may relieve pain in people with spinal cord injuries or fibromyalgia.

**MIND-BODY PROGRAM FOR LOW BACK PAIN**—VA researchers from Pittsburgh have started a clinical trial to test a mind-body program for older adults with lower back pain. The trial will include 300 people, aged 65 and older. They will be randomized to either a meditation program or a health education program. The meditation program is modeled on the Mindfulness-Based Stress Reduction program, an eight-week program first offered in 1979. Researchers will evaluate pain relief, function, and neuropsychological performance. This is the first large, well-controlled, comprehensive examination of the effects of a mind-body program on older adults with chronic pain.

★ **FACTS ABOUT PAIN**—*Pain is one of the most common reasons people consult a physician and is cited as the most common symptom in Service members returning from combat deployments. About half of VA patients are diagnosed with at least one type of chronic pain. Some types of chronic pain, such as the nerve pain experienced by some people with spinal cord injury, are notoriously difficult to treat. The VA's Chronic Pain Rehabilitation Program, established in 1988 and based at the Tampa VA Medical Center, is a nationally known center for chronic pain research, treatment, and education ([www.tampa.va.gov/chronicpain](http://www.tampa.va.gov/chronicpain)).*