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VA research on **PAIN MANAGEMENT**

VA researchers are working to develop new approaches to alleviate Veterans' pain, which may result from spinal cord injury, burns, amputations, traumatic brain injury, cancer, or musculoskeletal conditions.

ABOUT PAIN MANAGEMENT

- Pain is one of the most common reasons Americans consult a physician. Acute pain is caused by a specific condition like a broken bone or childbirth, and typically goes away once the underlying cause ends or is fixed. Chronic pain is ongoing pain that usually lasts longer than six months.
- According to the [CDC](#), 50 million U.S. adults have chronic pain. Approximately 19.6 million have high-impact chronic pain that limits at least one major life activity. One-third of people with high-impact chronic pain have difficulty with self-care activities like getting dressed.
- Joint and back pain and other musculoskeletal ailments are the most common diagnoses among Iraq and Afghanistan Veterans. Chronic pain is more prevalent and of greater intensity in Veterans than in the general population.
- Unrelieved and persistent chronic pain can contribute to depression, anxiety, poor sleep patterns, decreased quality of life, and substance use disorders. It is also a risk factor for suicide.
- The consequences of chronic pain include lost work productivity, disability, and increased health care costs.

VA RESEARCH ON PAIN MANAGEMENT: OVERVIEW

- VA is conducting studies to find ways to decrease medical and behavioral harms related to opioid use and misuse, improve access to effective complementary approaches to pain care, and help Veterans select individualized treatment options to address pain and improve function, among other areas.
- The [Center for Neuroscience and Regeneration Research](#), a collaboration between VA and its partners, conducts biomedical research that contributes to the scientific understanding of pain, especially nerve pain. The center is dedicated to molecular and cell-based discoveries on nervous system function.
- VA's [Pain, Research, Informatics, Medical Comorbidities, and Education \(PRIME\) Center](#), part of the VA Connecticut Healthcare System, conducts research to improve pain care and sponsors education activities for Veterans and clinical staff.
- The [Chronic Pain Rehabilitation Program](#) at the James A. Haley Veterans Hospital in Tampa, Florida, is a nationally known center for chronic pain research, treatment, and education. The CPRP offers inpatient and outpatient rehabilitation programs to help Veterans manage their chronic pain conditions.

- The [Center for Health Equity Research and Promotion \(CHERP\)](#) is a VA HSR&D Center of Innovation whose mission is to advance the quality and equity of health care for vulnerable Veteran populations. CHERP is examining the associations of socioeconomic status and geographic residence with pain management in Veterans.
- The [Pain Management and Patient Aligned Care CREATE](#) encourages VA investigators to collaborate with partners to enhance Veterans' access to pain care, to use health information technology to promote better pain care for Veterans, and to build sustainable improvements in pain care.

SELECTED MILESTONES AND MAJOR EVENTS

- 2000** - [Discovered](#) that ion channels—specialized proteins in nerve cells—are heavily implicated in neuropathic pain
- 2008** - Established the VA Pain Research, Informatics, Multimorbidities, and Education (PRIME) Center to study the interaction between pain and associated chronic conditions
- 2015** - Determined that VA's stepped-care model of pain management significantly reduced disability and pain interference and severity in Veterans with chronic pain

(Continued on back)



2016 - Established the musculoskeletal diagnosis cohort, made up of more than 5 million Veterans in VA care, to characterize variations in pain, treatment, and outcomes

2017 - Partnered with other federal agencies to fund \$81 million in new research on nondrug treatment of pain for military personnel and Veterans

2018 - Published results from the Strategies for Prescribing Analgesics Comparative Effectiveness (SPACE) trial, which found no significant difference in function for Veterans receiving opioid or non-opioid medication for chronic back, hip, or knee pain

RECENT STUDIES: SELECTED HIGHLIGHTS

Increasing opioid dosing does not seem to improve chronic pain, found a study by VA Portland researchers and colleagues. Out of 500 patients with chronic pain in the study, about 20% had their opioid dose increased. But only 3% of those patients showed meaningful improvement in pain. ([Pain](#), June 2020)

Veterans with musculoskeletal disorder and higher body weight are more likely to report experiencing

pain, according to a VA Boston study. The higher patients' body mass index, the more likely they were to report pain. Patients with moderate obesity were 9% more likely to report pain, and those with severe obesity had 23% higher odds of pain compared to patients with lower weight. ([Pain Medicine](#), March 18, 2020)

Non-drug therapies may help service members with chronic pain avoid adverse outcomes later in life, found a study by VA Palo Alto researchers. Veterans who received non-drug therapies like acupuncture, biofeedback, or chiropractic care during their service had a significantly lower risk of new-onset alcohol or drug use disorders; poisoning with opioids, barbiturates, or sedatives; and suicidal thoughts and attempts while under VA care. ([Journal of General Internal Medicine](#), March 2020)

Rural Veterans receive more opioid prescriptions than urban Veterans, according to an Iowa City VA study. Among nearly 5 million VA patients, rural Veterans received over 30% more opioids than their urban counterparts. The difference may reflect barriers to access to non-medication treatments for chronic

pain. ([Military Medicine](#), Dec. 1, 2019)

Adding collaborative care to an automated self-management program improved outcomes for Veterans with chronic musculoskeletal pain and mood disorders, in a Richard J. Roudebush VA Medical Center study. Patients receiving collaborative care from a team of nurses and physicians who provided regular phone contacts and optimized medication management were more likely to see symptom improvement, compared with those receiving automated self-monitoring and standard care only. ([Journal of General Internal Medicine](#), September 2019)

Researchers at the Southeast Louisiana Veterans Healthcare System have developed a new drug for pain that has less risk for addiction and overdose compared to currently available opioid medications. The new drug, ZH853, was as effective as morphine at relieving pain in rats. It reduced the length of time the animals felt pain and also had anti-inflammatory effects. ([Journal of Neuroinflammation](#), May 21, 2019)

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