

# Pain relief without opioids? Yes, it's possible

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Are opioid medications the only way to fight pain? Experts at USC say no, as growing research shows that non-opioid pain medicine and other tools can help people reduce or even avoid the use of narcotics.

Pain management professionals use a variety of tools to ease discomfort,



including other prescription and over-the-counter medications, as well as psychological interventions and mind-body therapies to minimize opioid use. Melissa Durham, associate professor of clinical pharmacy at the USC School of Pharmacy, and Faye Weinstein, director of pain management psychology at the Keck School of Medicine of USC, weigh in on the latest therapies available for non-opioid treatment.

### **Opt for Non-opioid Pain Medicine**

Opioids can relieve pain, but for many, they may do more harm than good. That's one reason why insurance companies are cracking down on covering opioid prescriptions. Add it all together and the demand for effective alternatives is at an all-time high. These are a few non-opioid treatment options that provide effective relief:

- Over-the-counter drugs: Nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen and naproxen, help reduce the inflammation that exacerbates pain. Acetaminophen (known by the brand name Tylenol) is also an effective pain reliever, but it doesn't reduce inflammation. "Using an NSAID in combination with acetaminophen can be an effective combination," Durham says. The key: Use the lowest dose of medication for the shortest duration. Long-term use could lead to liver damage, heart problems and other complications. (And, Durham adds, always check with your pharmacist before starting a new over the counter medication.)
- Antidepressants: You don't feel pain in the part of your body that hurts—instead, the sensation of pain stems from your brain. So do depression and anxiety. One of the symptoms of depression is physical pain. "So, even if you're not depressed, some antidepressants, such as duloxetine, can help lessen pain," Durham explains.
- Anti-seizure medications: Medications that counter seizures, like



- gabapentin and pregabalin, work on the same neurotransmitters as pain. Muscle relaxants: Muscle relaxants help release tension and restore functionality.
- Local anesthetics: A variety of prescription topical solutions, patches, gels and creams can help alleviate pain. Usually, these medications contain a numbing agent, such as lidocaine.
- Other medications: Research suggests that other medications may play a role in pain management. While doctors usually use naltrexone to save people from opioid overdose, using this drug in extremely low doses also can help quiet pain. Researchers are also investigating another medication called ketamine (often referred to as a horse tranquilizer) for use among patients with pain. More research is needed to determine the safest and most effective ways to use these medications.

This is only a sampling of medications available to treat pain. If you're concerned about using opioids—or even if you're not—talk to your doctor about ways to ease pain with non-opioid treatment.

### See a Therapist

People who suffer from chronic pain often hear, "It's all in your head." To some degree, that's true. Pain processing happens in the brain, not at the source of your pain. If you can get into your head and use your mind to your advantage, you may be able to better deal with pain. A few techniques pain management specialists use:

- Cognitive behavioral therapy: This form of psychotherapy can help people learn to swap negative thought patterns for more optimistic—and realistic—thoughts and behaviors. "Many people develop this sort of catastrophic thinking about their pain, which actually worsens their pain score," Weinstein explains.
- Occupational therapy: Getting back to regular, routine activities



can serve as a distraction, and that ultimately may lessen the perception of pain. Occupational therapy helps people regain their function.

 Mind-body therapies: Practices such as deep breathing and meditation can keep people from panicking about pain or the threat of it.

## **Self-Regulation Training**

People who suffer from chronic pain are hypersensitized to things that might cause pain. The pain response that at first protects them begins to work against them by over-responding to the mere suggestion of impending pain. That's why education plays a huge role in pain management and relapse prevention.

When health professionals educate patients about what's going on within the body and why they hurt, patients report feeling less pain, Weinstein says. "Patients can learn not only about how their nervous systems work, but they also learn how to dial [the nervous system] down."

In addition to education, therapists provide what they call self-regulation training to give patients skills and strategies to manage pain. This training may include biofeedback, which uses sensors attached to equipment to measure various biological processes, such as muscle tension, peripheral blood flow and electrical activity from stress. Patients watch as the biofeedback equipment displays these measurements on a monitor the patient can see. "The equipment is used to illustrate the mind-body connection, to show them how their bodies adapt to compensate for pain," Weinstein says.

As patients practice thoughts and behaviors, such as deep breathing, muscle relaxation exercises and soothing mental images, they watch their readings change on the monitors.



When used together, education, self-regulation training strategies and biofeedback can help patients reduce muscle spasm, decrease pain flares and avoid inflaming their nervous system, as well as preventing other physical changes that can worsen pain.

#### **Attack Pain on All Fronts**

Pain is a complex process that affects areas of the brain involved in sleep, motivation and emotion. Because the experience of pain is so farreaching, doctors believe the best approach to pain management is a combination of therapy, mindset and medication.

"If we really want to address the opioid crisis, we have to offer patients treatments that are as effective as opioids, but don't put them at risk of developing dependence," Durham says. "The most effective approach to pain management requires multiple disciplines, and almost always includes medications and psychological intervention."

#### Provided by University of Southern California

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