



Opiates, including heroin and prescription painkillers, are present in 20% of suicide deaths each year.
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Narcotic Painkillers—Do They Work?

The results of a new study published in the *Journal of the American Medical Association* (JAMA) reveal that narcotic painkillers actually only work slightly better at relieving chronic pain than placebo (sugar) pills.

The report was published in the December 18th issue of JAMA, and is in line with the U.S. Centers for Disease Control (CDC) recommendations that discourage physicians from prescribing narcotic painkillers for most cases of chronic pain. Chronic pain is described as experiencing pain on most days for the past six months. The CDC reports that about 50 million Americans suffer from chronic pain.

But opioid-based narcotic painkillers make only a small difference in pain level for most patients, and they also come with side effects like respiratory problems, drowsiness, nausea, vomiting, and constipation. Add to that the potential for serious addiction, and it becomes obvious (as has been noted in prior issues of this *Employee Education Newsletter*) that opioid-based painkillers should be a last resort if they are prescribed at all.

Over-the-Counter Options

While opioids can ease some cancer-related pain, or short-term pain after surgery, chronic pain is different and does not respond well to opioid-based treatment. But no one should have to suffer from long-term pain, so what are the alternatives?

Unfortunately, a mistake too often made by doctors is to increase the

dosage of an opioid painkiller when patients say it's not working to relieve their pain. But the best practice is to prescribe an opioid drug as a short-term trial only, and if it does not help, patients should discontinue use and seek other forms of treatment. Patients with chronic pain often experience impaired physical functioning and poor quality of sleep, and this most recent report found that the benefits of narcotic painkillers at improving these conditions are very limited.

Opioid painkillers are really no better at relieving chronic pain than Advil, Motrin, or Tylenol—which, of course, are non-addictive and safer (when taken as directed). In a study conducted at Case Western Reserve University in Cleveland, the researchers found that a combination of 400 milligrams of Advil or Motrin with 1,000 milligrams of Tylenol was more effective than Vicodin or Oxycontin at relieving pain. The study concluded that: "The best available data suggests that the use of nonsteroidal medications (NSAIDs), with or without acetaminophen, offers the most favorable balance between benefits and harms, optimizing efficacy (effectiveness) while minimizing acute adverse events."

So, what can individuals suffering from pain do to alleviate their discomfort? The best strategy for controlling around-the-clock pain is to alternate taking an over-the-counter acetaminophen pain reliever like Tylenol with an ibuprofen like Advil. These medications don't interfere with each other in any way. In fact, their combined use can reduce pain to such a degree that stronger opioid medications may not be needed. A study

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conducted by the University of Auckland found that when taken together, acetaminophen and ibuprofen provided better pain relief than using the drugs on their own.

How do over-the-counter drugs like Tylenol work to relieve pain? Tylenol is a type of analgesic that changes the way the brain perceives pain and lowers the temperature of the body. This is known as an antipyretic effect. The *exact* mechanism of how Tylenol works is unclear, but scientists believe it works by inhibiting cyclo-oxygenase (primarily COX-2). However, patients should be aware that Tylenol is metabolized in part by the liver, so people with liver problems should avoid taking it when possible.

Motrin is a nonsteroidal anti-inflammatory drug. Like Tylenol, it inhibits prostaglandin synthesis. Prostaglandins mediate pain, inflammation, and fever. But inhibiting prostaglandin synthesis can also cause vasoconstriction, which can harm the kidneys, so people with kidney problems should avoid Motrin. Always check the label of any over-the-counter drug and only take as recommended.

Other Forms of Pain Relief

For those who are concerned about taking Advil, Motrin, or Tylenol to treat pain, there are other methods of pain relief that may work.

Heating pads and compression bandages can sometimes help provide relief to areas of pain. Heat triggers anti-inflammatory proteins and compression decreases blood flow to injuries, which

keeps inflammation and swelling down. A combination of medical treatments like cognitive behavioral therapy, acupuncture, physical therapy, and exercise have also worked to ease patients' long-term pain.

Some physical therapists use Pulsed Electromagnetic Field (PEMF) Therapy to heal fractures and torn cartilage faster, and some surgeons recommend it as a post-op way to minimize soft tissue inflammation. PEMF machines send electromagnetic pulses through tissue, gently stimulating anti-inflammatory and repair compounds.

Cryotherapy, or ice baths, can also relieve certain types of pain. These methods work to alleviate pain by causing the body to release cold-shock proteins that decrease inflammation and speed up recovery.

A method of pain treatment known as Transcutaneous Electrical Nerve Stimulation (TENS) sends a mild electrical current through muscle and soft tissue, stimulating repair compounds and pain-relieving endorphins.

Conclusion

More than 2,000,000 Americans are now addicted to narcotic painkillers, and overdoses result in the deaths of more than 40,000 people in the U.S. annually. Fortunately, safe alternatives for alleviating pain do exist, but patients should always consult with their doctor before stopping the use of any medication.