

Opioids ease osteoarthritis pain only slightly. Deadly risks need to be weighed against benefit

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Osteoarthritis is one of the leading causes of disability, [affecting more than 500 million people globally](#).

Most doctors encourage physical activity, maintaining a healthy weight and short-term use of a simple painkiller like paracetamol to manage the

pain.

Opioids, like codeine, morphine or oxycodone, have a reputation as powerful painkillers and are commonly prescribed for persistent osteoarthritis pain. Up to 40% of people with knee osteoarthritis in the US are [treated with opioid medicines](#).

People who begin taking opioid medicines to treat chronic pain conditions like osteoarthritis may end up taking them on an ongoing basis and expose themselves to serious harms including [dependence, overdose and even death](#).

In Australia, deaths from opioids [now exceed the national road toll](#).

In our new study, [published today](#), we reviewed all the relevant research and found opioids only offer very small benefits for the relief of osteoarthritis pain. Patients—and their doctors—need to carefully weigh up the risks and benefits of taking these commonly prescribed medicines for the treatment of osteoarthritis.

Small shifts on the pain scale

Opioids are types of narcotic drugs that work on the central nervous system to relieve pain. Our team from the University of Sydney and [Sydney Musculoskeletal Health](#) conducted a large review of 36 randomized controlled trials that compared opioid medicines to a placebo (or inactive pill) for osteoarthritis pain of the knee or hip. This kind of review represents the highest level of research evidence.

The combined trial results show the overall effects of opioid medicines compared to placebo on important outcomes such as pain and function.

The review found opioid medicines provide a very small improvement in

pain and function compared with placebo. This improvement amounted to approximately 5 points or less on a 0 (no pain) to 100 (worst pain imaginable) pain scale. These modest effects are similar to what is expected if [using paracetamol for osteoarthritis](#) and less than one-third as effective as [certain non-steroidal anti-inflammatory pills or creams](#) including ibuprofen.

Our findings add weight to other research into the effectiveness of opioids. Australian researchers [observed](#) late last year that opioids were no more effective than mild painkillers after surgery for fracture.

More was not more effective

Importantly, we found no significant link between the dosage amount of opioid medicine and the level of pain relief. So, if an opioid medicine isn't helping manage pain, increasing the dose is not likely to provide any further benefit.



Patients may get just as much pain relief from paracetamol or ibuprofen. Credit: [Shutterstock](#)

The harms of opioids are well known, particularly at higher doses. Common side effects include nausea, constipation and fatigue. The [review](#) revealed the risk of experiencing unwanted effects like these when taking an opioid is almost 1.5 times greater than when taking a placebo.

Opioids also carry a risk of [tolerance](#), which happens when the current dose is no longer helpful in managing the pain and a larger dose is needed to achieve the same effect.

These medicines can also lead to [dependence](#), where stopping the opioid

suddenly can lead to unpleasant withdrawal symptoms such as an inability to sleep, agitation, sweating and heart palpitations.

The risk of life-threatening overdose events is high with regular use of opioid medicines, as opioids inhibit the part of the brain that regulates our breathing. Opioids are the [most common cause of drug-induced deaths in Australia](#), with 1,121 deaths reported in 2019 alone. The majority of these deaths (around 56%) resulted from prescription opioid medicines rather than illicit opioids such as heroin.

Scientists are working on [new pain-relieving compounds](#) that activate opioids receptors but are safer for patients.

Patients get hooked and fast

In the past few years, growing evidence has revealed taking opioid medicines for just a short amount of time can lead to persistent use.

About 24% of patients who use opioid medicines for 12 days will [continue to use opioids for at least a year](#). This goes up to 43% after just one month of opioid use.

With long-term use, the risk of adverse effects is greatly increased, especially as it is likely people will need higher doses to achieve the same level of pain control.

Chronic pain conditions like osteoarthritis are also commonly treated with long-acting formulations of opioid medicines such as OxyContin. However these types of opioids, which are intended to be taken regularly instead of only when needed, are associated with a [six-fold increased risk of overdose](#) compared with short-acting formulations.

Breaking News: Over 100,000 people in the U.S. died of drug

overdoses as the pandemic spread, surpassing the toll of gun violence and car crashes combined. The nearly 30% rise in deaths last year was fueled by the use of fentanyl.

<https://t.co/6SEgqhZcmo>

— The New York Times (@nytimes) [November 17, 2021](#)

Choose wisely

Our new findings will provide people with realistic expectations about the benefits these drugs can provide for chronic [pain](#). Then they can carefully weigh this up with the risks.

Opioid medicines provide modest benefits for [osteoarthritis](#) which is similar to, or considerably less than, more simple analgesics like paracetamol or ibuprofen.

If you do choose or are prescribed to start an opioid [medicine](#), discuss the benefits and potential harms with a doctor first. If you are concerned about the amount of [opioid](#) medicines you are using, or the duration you have been using them, speak with your doctor about a [dose-reduction plan](#).

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