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## News Release

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### One in 4 People Prescribed Opioids Progressed to Longer-Term Prescriptions

ROCHESTER, Minn. — [Opioid painkiller addiction](#) and accidental overdoses have become far too common across the United States. To try to identify who is most at risk, [Mayo Clinic](#) researchers studied how many patients prescribed an opioid painkiller for the first time progressed to long-term prescriptions. The answer: 1 in 4. People with histories of [tobacco use](#) and [substance abuse](#) were likeliest to use opioid painkillers long-term.

**MUTLIMEDIA ALERT: Video and audio are available for download on the [Mayo Clinic News Network](#).**

The findings are published in the July issue of the medical journal [Mayo Clinic Proceedings](#).

While the study identified past or present nicotine use and substance abuse as top risk factors for long-term use of opioids, all patients should proceed with caution when offered opioid painkiller prescriptions, says lead author [W. Michael Hooten, M.D.](#), an anesthesiologist at Mayo Clinic in Rochester.

“From a patient perspective, it is important to recognize the potential risks associated with these medications. I encourage use of alternative methods to manage pain, including non-opioid analgesics or other nonmedication approaches,” Dr. Hooten says. “That reduces or even eliminates the risk of these medications transitioning to another problem that was never intended.”

Discovering who is likeliest to end up using the drugs long-term is critically important due to the widespread problems associated with their misuse, he says.

“Many people will suggest it’s actually a national epidemic. More people now are experiencing fatal overdoses related to opioid use than compared to heroin and cocaine combined,” Dr. Hooten says, citing data from the [Centers for Disease Control and Prevention](#).

Researchers used the National Institutes of Health-funded [Rochester Epidemiology Project](#) to get a random sample of 293 patients who received a new prescription in 2009 for an [opioid painkiller](#) such as oxycodone, morphine, hydromorphone, oxymorphone, hydrocodone, fentanyl, meperidine, codeine and methadone.

They found that 21 percent, or 61 people, progressed from short-term use to prescriptions lasting three to four months, and 6 percent, or 19, of the 293 studied ended up with more than a four-month supply of the drugs.

The identification of nicotine use and substance abuse as top risk factors for long-term use of opioids suggests that physicians should be particularly careful about prescribing the painkillers to patients with such histories, Dr. Hooten says.

Why is there such a connection? The science shows it's all in our heads. The neurobiology related to chronic pain, chronic opioid use and addiction is similar, Dr. Hooten says. For example, nicotine activates a group of receptors, or brain structures, in a way very similar to how opioids and chronic pain may activate them.

Long-term opioid use may actually make people more sensitive to pain – a condition called opioid-induced hyperalgesia, another [recently published study](#) by Dr. Hooten and other Mayo researchers found.

If opioids must be used, as is usually the case with surgery or traumatic injuries, reducing the dose and limiting the duration is important, Dr. Hooten says.

“The next step in this research is to drill down and find more detailed information about the potential role of dose and quantity of medication prescribed,” he says. “It is possible that higher dose or greater quantities of the drug with each prescription are important predictors of longer-term use.”

The Rochester Epidemiology Project is funded by [National Institute on Aging](#) grant R01-AG034676.

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