A new scientific review of 148 studies enrolling over 4.3 million adult chronic pain patients treated with prescription opioid painkillers has found that nearly one in ten patients experiences opioid dependence or opioid use disorder and nearly one in three shows symptoms of
dependence and opioid use disorder. This review provides a more accurate—and more concerning—rate of opioid misuse than has previously been calculated. It was conducted by researchers at the University of Bristol, and appears in the scientific journal *Addiction*.

Companies like Oxycontin manufacturer Purdue Pharma have claimed that fewer than 1% of opioid prescriptions result in problems for patients. This new review makes clear that such claims greatly understate the risk of opioid misuse and addiction.

The researchers divided the 148 studies into four general categories, depending on how the studies defined problematic opioid use:

1. Dependence and opioid use disorder: 43 studies that identified problematic opioid use through diagnostic codes (formal diagnoses using precise definitions);
2. Signs and symptoms of dependence and opioid use disorder: 44 studies that looked for behaviors indicating dependence and opioid use disorder, such as craving, tolerance, or withdrawal, without use of specific diagnostic codes;
3. Aberrant behavior: 76 studies that looked for inappropriate or concerning behavior, such as seeking early refills, repeated dose escalations, or frequently lost prescriptions; and
4. At risk of dependence and opioid use disorder: 8 studies that looked for characteristics that might increase the risk of developing *opioid dependence* or opioid use disorder in the future; however, the characteristics do not fall within previous categories of aberrant behavior or dependence and opioid use disorder.

Some studies reported multiple results within the same participants using different measurement criteria, so the sum of the number of studies in each category equals more than 148. The prevalence (frequency) of
problematic opioid use for each category was:

1. Dependence and opioid use disorder: 9.3%, or nearly 1 in 10 patients.
2. Signs and symptoms of dependence and opioid use disorder: 29.6%, nearly 1 in 3 patients.
3. Aberrant behavior: 22%, more than 1 in 5 patients.
4. At risk of dependence and opioid use disorder: 12.4%, nearly 1 in 8 patients.

Lead author Kyla Thomas, Professor of Public Health Medicine at the University of Bristol, explains, "Clinicians and policy makers need a more accurate estimate of the prevalence of problematic opioid use in pain patients so that they can gauge the true extent of the problem, change prescribing guidance if necessary, and develop and implement effective interventions to manage the problem. Knowing the size of the problem is a necessary step to managing it."

The studies in this review were predominantly from North American research and high-income countries. In all, 106 of the 148 studies were conducted between 2010 and 2021; the oldest study was from 1985. Study size ranged from 15 to 2,304,181 patients. Due to the high heterogeneity of the studies, these findings should be interpreted with caution.


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