

Commonly Abused Prescription Medications-Opiates

What are Opioids?

Opioids are commonly prescribed because of their effective analgesic, or pain-relieving, properties. Studies have shown that properly managed medical use of opioid analgesic compounds (taken exactly as prescribed) is safe, can manage pain effectively, and rarely causes addiction.

Among the compounds that fall within this class are hydrocodone (e.g., Vicodin), oxycodone (e.g., OxyContin—an oral, controlled-release form of the drug), morphine, fentanyl, codeine, and related medications. Morphine and fentanyl are often used to alleviate severe pain, while codeine is used for milder pain. Other examples of opioids that can be prescribed to relieve pain include propoxyphene (Darvon); hydromorphone (Dilaudid); and meperidine (Demerol), which is used less often because of its side effects. In addition to their effective pain-relieving properties, some of these medications can be used to relieve severe diarrhea (for example, Lomotil, also known as diphenoxylate) or severe coughs (codeine).

How are Opioids Abused?

Opioids can be taken orally, or the pills may be crushed and the powder snorted or injected. A number of overdose deaths have resulted from the latter routes of administration, particularly with the drug OxyContin, which was designed to be a slow-release formulation. Snorting or injecting opioids results in a rapid release of the drug into the bloodstream, exposing the person to high doses and causing many of the reported overdose reactions.

How do Opioids Affect the Brain?

Opioids act by attaching to specific proteins called opioid receptors, which are found in the brain, spinal cord, and gastrointestinal tract. When these compounds attach to certain opioid receptors in the brain and spinal cord, they can effectively change the way a person experiences pain.

In addition, opioid medications can affect regions of the brain that mediate what one perceives as pleasure, resulting in the initial euphoria or sense of well-being

that many opioids produce. Repeated abuse of opioids can lead to addiction—a chronic, relapsing disease, characterized by compulsive drug seeking and abuse despite its known harmful consequences.

What Adverse Effects Can be Associated with Opioids?

Opioids can produce drowsiness, cause constipation, and, depending upon the amount taken, depress breathing. Taking a large single dose could cause severe respiratory depression or death.

These medications are only safe to use with other substances under a physician's supervision. Typically, they should not be used with alcohol, antihistamines, barbiturates, or benzodiazepines. Because these substances slow breathing, their combined effects could lead to life-threatening respiratory depression.

What Happens When you Stop Taking Opioids?

Patients who are prescribed opioids for a period of time may develop a physical dependence on them, which is not the same as addiction. Repeated exposure to opioids causes the body to adapt, sometimes resulting in tolerance (that is, more of the drug is needed to achieve the desired effect compared to when it was first prescribed) and withdrawal symptoms upon abrupt cessation of drug use. Thus, individuals taking prescribed opioid medications should not only be given these medications under appropriate medical supervision, but should also be medically supervised when stopping use in order to reduce or avoid withdrawal symptoms. Symptoms of withdrawal can include restlessness, muscle and bone pain, insomnia, diarrhea, vomiting, cold flashes with goose bumps (“cold turkey”), and involuntary leg movements.

Are there Treatments for Opioid Addiction?

Individuals who abuse or are addicted to prescription opioid medications can be treated. Initially, they may need to undergo medically supervised detoxification to help reduce withdrawal symptoms—however, that is just the first step. Options for effectively treating addiction to prescription opioids are drawn from research

on treating heroin addiction. Behavioral treatments combined with medications have proven effective. Currently used medications are:

- ***Methadone***, a synthetic opioid that eliminates withdrawal symptoms and relieves craving, has been used for more than 30 years to successfully treat people addicted to heroin.
- ***Buprenorphine***, another synthetic opioid, is a more recently approved medication for treating addiction to heroin and other opiates. It can be prescribed in a physician's office and has a better safety profile than methadone.
- ***Naltrexone*** is a long-acting opioid receptor blocker that can be employed to help prevent relapse. It is not widely used, however, because of poor compliance, except in highly motivated individuals (e.g., physicians at risk of losing their medical license). It should be noted that this medication can only be used for someone who has already been detoxified, since it can produce severe withdrawal symptoms in a person continuing to abuse opioids.

Naloxone is a short-acting opioid receptor blocker that counteracts the effects of opioids and can be used to treat overdoses.