Pain is the most common reason people seek medical treatment. Patients often want the most potent painkillers—opioids, also referred to as narcotics.

If you have been injured on the job and have developed chronic pain, you might seek relief with narcotic medications. Narcotics are potent pain relievers. But there are many reasons why you should try safer medications before taking narcotics.

Prescription drug abuse, caused mainly by misuse of opioid painkillers, is the fastest-growing drug problem in the United States. Since 2003, more overdose deaths have involved opioid analgesics than heroin and cocaine combined. This epidemic parallels the huge increase in the number of prescriptions written for opioid medications over the past decade.

What Are Opiates?

Pure opium is a mixture of alkaloids extracted from the sap of the poppy plant’s unripe seedpods. Opioid painkillers include a wide variety of compounds, divided into classes based on whether they are straight extracts from the opium poppy, extracts that have been chemically modified, or completely synthetic compounds that have a similar mechanism of action but are unrelated to opium.*

Heroin, codeine, and morphine are natural derivatives of these alkaloids. Their effects, and the abuse potential of the various compounds, differ. Opiates can be short acting (e.g., morphine sulfate), extended release (short-acting formulations that are absorbed slowly so they can be taken at longer intervals), or long acting (e.g., methadone).

How Do These Drugs Work?

These drugs are easily absorbed through the gastrointestinal tract and attach to one or more of the four types of opiate receptors in the brain. When receptors are stimulated, they reduce pain without eliminating its cause. They produce sedation, euphoria, and respiratory depression. And they also slow gut function, leading to constipation.

Peak effects generally are reached in 10 minutes if taken intravenously, 30–45 minutes with an intramuscular injection, and 90 minutes by mouth.

* Extracts of the poppy include morphine sulfate (Conttin®, Roxinal®, and Avinza®) and codeine, sold as Tylenol 3®, Tylenol 4®, Fiorinal #3®, and Fioricet #3®. Semisynthetics include hydrocodone (Vicodin®, Vicodin ES®, Vicoprofen®, Lortab®, Lorcet®, Norco®), Hysingla® ER, Zohydro® ER), hydromorphone (Dilaudid®), oxycodone (Percocet®, Roxicet®, Endocet®, Percodan®, OxyContin®), and oxymorphone (Opana®, Opana ER®). Synthetics include methadone (Dolophine®, Methadose®), meperidine (Demerol®), fentanyl (Sublimaze®, Sufentanil®, Ultiva®, Actiq®), and loperamide (Imodium®).
**What Are the Signs of Overdose?**

Signs of overdose include slowed, obstructed, or stopped breathing; sleepiness progressing to stupor or coma; weak, floppy muscles; cold and clammy skin; pinpoint pupils; slow heart rate; dangerously low blood pressure; and death. Less commonly, sudden lung injury, uncontrollable seizures, and heart damage can occur.

**How Opiates Kill**

These medications are dangerous because the difference between the amount needed to feel their effects and the amount needed to kill a person is small and unpredictable.

Respiratory depression is the chief hazard associated with opiate painkillers. Other especially problematic drugs—alcohol, tranquilizers, and barbiturate sedatives found in sleeping pills and anti-anxiety medications—enhance the respiratory depression caused by opiates. So if someone is drinking or taking tranquilizers and takes usual doses of opiates, he or she may pass out, stop breathing, and die. To further complicate matters, opiates are broken down in the body to harmless compounds over different time periods. Mixing extended-release and long-acting opiates can be deadly. Also, the pain-relieving and euphoria-inducing aspect of opiates may wear off before the tendency to depress breathing does.

This is especially true of methadone. Methadone’s peak respiratory depressant effects typically occur later, and last longer, than its peak painkilling effects. Overdoses often occur when someone takes methadone for the first time or the dose is increased. What is worse, doctors prescribing various opiate medications may not understand how different opiate brands are metabolized, how different drugs cross-react, and how this affects overdose potential.

**Tolerance Brings Further Peril**

Another serious problem with opiates is tolerance, the ability to resist the action of a drug. Regular users of opiates and other drugs (such as alcohol) develop tolerance. In effect, a person who is a chronic opiate user feels less of its effect (and his or her body can tolerate more of the drug) than an initiate user feels. A common overdose death scenario among opiate addicts is when, because of tolerance, they increase the dose to get a rush, not realizing they are not tolerant to the respiratory depression effects.

Tolerance may not be the same for different opiates. Incomplete cross-tolerance is of particular concern for patients tolerant to one opiate who are being converted to treatment with methadone.

There is an emerging body of evidence that opiates, when taken for long periods of time, may actually increase the body’s perception of pain. This may lead to a feedback loop of need for higher and higher doses, more and more risk of overdose, and increasing pain.
Why Are Opiates Prescribed If They Are So Dangerous?

Opioid pain medications are the most powerful pain relievers available to ease severe pain. Too often, though, they are prescribed when safer medications would suffice, and they are prescribed in larger amounts than needed.

So, think twice about taking them; if you need to take them, do so with caution. Using someone else’s medication could cost you your life.

Dispose of unused pills safely.

Useful Web Site


Resources


