

Stimulants.....

What are they?

Just as the names suggests, stimulants increase alertness, attention, and energy, as well as, elevate blood pressure and increase heart rate and respiration. Stimulants, historically were used to treat asthma and other respiratory problems, obesity, neurological disorders, and a variety of other ailments. As their potential for abuse and addiction became apparent, the medical use of stimulants began to decrease. Now stimulants are prescribed for the treatment of only a few health conditions, including narcolepsy, ADHD, and depression that has not responded to other treatments.

How do stimulants affect the brain and body?

Stimulants such as, Dexedrine and Adderall, and Ritalin and Concerta, have chemical structures similar to a family of key brain neurotransmitters called monoamines, which include norepinephrine and dopamine. Stimulants enhance the effects of these chemicals in the brain. They also increase blood pressure and heart rate, constrict blood vessels, increase blood glucose, and open up the pathways of the respiratory system. The increase of dopamine is associated with a sense of euphoria that can accompany these drugs.

What are the possible consequences of stimulant use and abuse?

As with other drugs of abuse, it is possible for someone to become dependent upon or addicted to many stimulants. Withdrawal symptoms associated with the discontinuing stimulant use include:

- Fatigue
- Depression
- Disturbance of sleep patterns

Repeated use of some stimulants over a short period can lead to feelings of hostility or paranoia. Taking high doses of a stimulant may result in dangerously high body temperature and irregular heartbeat. There is also the potential for cardiovascular failure or lethal seizures.

Is it safe to use stimulants with other medications?

Stimulants should only be used in combination with other medications under a physician's supervision. Patients should also be aware of the dangers associated with mixing stimulants and over-the-counter cold medicines that contain decongestants; combining these substances may cause blood pressure to become dangerously high or lead to irregular heart rhythms.

Source: The National Institute on Drug Abuse; The Science of Drug Abuse and Addiction. (NIDA).

More than 6.3 Million Americans Reported Current Use of Prescription Drugs for Nonmedical Purposes in 2003



Source: Office of Applied Studies, Substance Abuse and Mental Health Services Administration. National Survey on Drug Use and Health, 2004.

Preventing and Recognizing Prescription Drug Abuse

The risks for addiction to prescription drugs increase when the drugs are used in ways other than for those prescribed. Healthcare providers, primary care physicians, and pharmacists, as well as, patients themselves, can all play a role in identifying and preventing prescription drug abuse.

It is estimated that more than 50 million Americans will suffer from chronic pain. Healthcare providers have long wrestled with a dilemma: "How to adequately relieve a patient's suffering, while avoiding the potential for that patient to become addicted to the pain medication.

Although these drugs carry a risk for addiction, physicians must watch for signs of abuse and addiction. Often time the likelihood is low, with the exception of those with personal or family history of drug abuse or mental illness.

Pain management for patients who have a substance abuse disorder is particularly challenging, but these patients can still be treated successfully with opioid pain medications.

Taking prescriptions only as prescribed is one way. Reporting any side effects or reactions to your physician is important also. If you are considering taking an over the counter medication with a prescribed opioid, stimulant or CNS depressant, don't take any chances, ask your physician or pharmacist if it is ok, or what they recommend.

Prescription drug addiction can be treated. Behavioral treatments encourage patients to stop drug use and teach them how to function without drugs, handle cravings, avoid drugs and situations that could lead to drug use, and how to handle a relapse should it occur.

Medicinal treatments can be effective for some addictions such as, opioid addiction. These treatments counter the effects of the drug on the brain and behavior, and can relieve withdrawal symptoms, treat overdose, or help overcome drug cravings.

Research has shown that a combination of both treatments is most effective.



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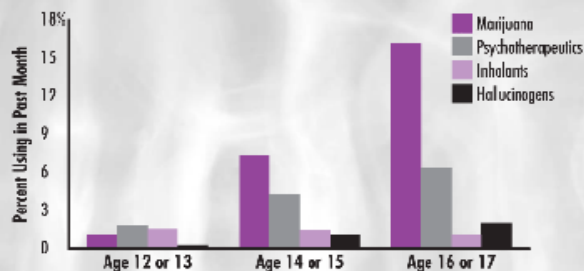
Prescription Drug Abuse & Addiction

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Trends in Prescription Drug Abuse

Past Month Use of Selected Illicit Drugs Among Youths, by Age: 2003



Source: Office of Applied Studies, Substance Abuse and Mental Health Services Administration, National Survey on Drug Use and Health, 2004.

Adolescents and young adults

Data from the 2003 NSDUH indicate that 4.0 percent of youth ages 12 to 17 reported non-medical use of prescription medications in the past month. Rates of abuse were highest among the 18-25 age group (6.0 percent). Among the youngest group surveyed, ages 12-13, a higher percentage reported using psychotherapeutics (1.8 percent) than marijuana (1.0 percent).

The NIDA Monitoring the Future survey of 8th-, 10th-, and 12th-graders found that the non-medical use of opioids, tranquilizers, sedatives/barbiturates, and amphetamines was unchanged between 2003 and 2004. Specifically, the survey found that 5.0 percent of 12th-graders reported using OxyContin without a prescription in the past year, and 9.3 percent reported using Vicodin, making Vicodin one of the most commonly abused licit drugs in this population. Past year, non-medical use of tranquilizers (e.g., Valium, Xanax) in 2004 was 2.5 percent for 8th-graders, 5.1 percent for 10th-graders, and 7.3 percent for 12th-graders. Also within the past year, 6.5 percent of 12th-graders used sedatives/ barbiturates (e.g., Amytal, Nembutal) non-medically, and 10.0 percent used amphetamines (e.g., Ritalin, Benzedrine).

Youth who use other drugs are more likely to abuse prescription medications. According to the 2001 National Household Survey on Drug Abuse (now the NSDUH), 63 percent of youth who had used prescription drugs non-medically in the past year had also used marijuana in the past year, compared with 17 percent of youth who had not used prescription drugs non-medically in the past year.

Opiads.....What are they, and what effects can they have if abused?



Opioids are commonly prescribed because of their effective analgesic, or pain relieving properties. Medications that fall within this class referred to as Prescription Narcotics include:

- Morphine (Kadian, Avinza) - often used before and after surgical procedures to alleviate severe pain
- Codeine - often prescribed for mild pain
- Oxycodone (OxyContin, Percodan, Percocet) - For moderate to severe pain..... and related drugs

How do Opioids affect the brain and body?

Opioids act on the brain and body by attaching to specific proteins called opioid receptors, which are found in the brain, spinal cord, and gastrointestinal tract. When these drugs attach to certain opioid receptors, they can block the perception of pain. Opioids can produce drowsiness, nausea, constipation, and depending on the amount of drug taken, depress respiration. Opioids can also induce a euphoria by affecting the brain regions that mediate what we perceive as pleasure. This feeling is often intensified for those who abuse the drug when administered other than the prescribed way. For example, OxyContin is often snorted or injected to enhance its euphoric effects, while at the same time increasing the risk for serious medical consequences, such as opioid overdose.

What are the possible consequences of Opioid use and abuse?

Taken as directed, these prescription drugs can be effectively used to manage pain. If misused and abused addiction can occur. The body becomes dependent and adapts to the presence of the drug. When the drug is stopped or reduced, withdrawal symptoms may occur. Withdrawal symptoms include:

- Restlessness
- Muscle and bone pain
- Insomnia
- Diarrhea
- Vomiting
- Cold flashes with goose bumps ("Cold Turkey")
- Involuntary leg movements

Long-term use of opioids can lead to physical dependence and addiction. Taking large single doses of an opioid could cause severe respiratory depression that can lead to death.

CNS Depressants.... What are they?

CNS depressants, sometimes referred to as sedatives or tranquilizers, are substances that can slow normal brain function. Some CNS depressants are useful in the treatment of anxiety and sleep disorders. Among the medications that are commonly prescribed for these purposes are:

- **BARBITURATES** - such as Mebaral and Nembutal, used to treat anxiety, tension, and sleep disorders.
- **BENZODIAZEPINES** - such as Valium, Librium, and Xanax, used to treat anxiety, acute stress reactions, and panic attacks. The more sedating drugs such as Halcion and Prosom are prescribed for short-term treatment of sleep disorders. Usually, benzodiazepines are not prescribed for long-term use.

How do CNS depressants affect the brain and body?

Most CNS depressants act on the brain by affecting the neurotransmitter gammaaminobutyric acid (GABA). Neurotransmitters are brain chemicals that facilitate communication between brain cells. GABA works by decreasing brain activity. Although the different classes of CNS depressants work in unique ways, it is through their ability to increase GABA activity that they produce a drowsy or calming effect that is beneficial to those suffering from anxiety or sleep disorders.

What are the possible consequences of CNS depressant use and abuse?

Despite the beneficial effects barbiturates and benzodiazepines have the potential for abuse and should only be used as prescribed. During the first few days of taking a prescribed CNS depressant. A person usually feels sleepy and uncoordinated, but as the body becomes accustomed to the effects of the drug, these feelings begin to disappear. If one uses the drug long-term, the body will develop a tolerance for the drug, and larger doses will be needed to achieve the same initial effects. Continued use can lead to physical dependence and when reduced or stopped, withdrawal symptoms occur. Because all CNS depressants work slowly on the brain's activity, when an individual stops taking them, the brain's activity can rebound and race out of control, potentially leading to seizures and other harmful consequences.

Is it safe to use CNS depressants with other medications?

Only use CNS depressants in combination with other medications if your doctor tells you it is ok. Typically, they should not be combined with any other medication or substance that causes CNS depression, including some prescription pain medicines, some over-the-counter cold and allergy medicines, and alcohol. Using CNS depressants with these other substances-particularly alcohol, can slow both the heart and respiration and may lead to death.