



## The Lowdown on **Hydrocodone**

**The active ingredient in many prescription pain relievers such as Vicodin® is a powerful drug—and dangerous when not used as prescribed.**

**T**here is great news from the latest Monitoring the Future (MTF) Study, a survey that tracks teen drug use from year to year: Overall drug abuse is down among teens. Unfortunately, there's some bad news too: Abuse of prescription drugs remains at high levels. Of particular concern is the continued abuse of Vicodin®, whose principal ingredient is hydrocodone, with nearly one in ten high school seniors abusing Vicodin® in 2006.

Taken under the supervision of a doctor, hydrocodone can be helpful in relieving acute and chronic pain. Yet the risks of abuse and addiction can be very real. As Nora D. Volkow, M.D., Director of NIDA, points out: "Hydrocodone is a powerful pain medication, but when abused—used without a prescription, from someone else's prescription, or in a different form or dosage than what a doctor would prescribe—it can lead to

serious health consequences, even death, especially when combined with alcohol or other drugs."

### **SO, WHAT IS HYDROCODONE?**

Hydrocodone is a powerful **opioid** (a pain reliever acting on the central nervous system) for the relief of moderate to severe pain. Hydrocodone is formulated under a number of different brand names, such as Vicodin®, Anexsia®, Lorcet®, and Norco®. Another well-known opioid is oxycodone, the generic name for the drugs OxyContin®, Percodan®, and Percocet®. Available by prescription only, hydrocodone is similar in potency to oral **morphine** (an analgesic derived from poppies) and is in the same opioid drug class as heroin. Opioids act by attaching to specific proteins called **opioid receptors** found in the brain, spinal cord, and gastrointestinal tract, and can effectively change the way a person

Photo, composite image: © Masterfile; pills: © Jessica Moon.

experiences pain. Additionally, opioids affect regions of the brain, including the **nucleus accumbens** (a key structure in reward, motivation, and addiction), resulting in initial euphoria.

The high levels of Vicodin® abuse may be linked to its widespread availability—a fact that becomes even more troubling when considering the health risks of abusing hydrocodone and other prescription drugs. (See the sidebar “Prescription for Disaster.”) According to NIDA researcher Sean McCabe and others, some of the leading sources for teens obtaining prescription opioids are family members and friends. Many people assume that if a drug is “legal” and prescribed by a doctor, it’s okay to use. But hydrocodone and other prescription medicines can be as harmful as illicit street drugs when abused or combined with alcohol or other

## PRESCRIPTION FOR DISASTER

A prescription is a doctor’s instructions to a particular patient: Only this person can take this medication, in this amount, for this length of time. When the medication is taken on purpose for any other reason, by any other person, including the patient, that is called *abuse*.

The following categories define and describe the kinds of prescription drugs most abused by teens.



**Opioids**, like *Vicodin*® and *OxyContin*®, are prescribed to treat severe pain. Dangers when abused:

- Extremely addictive
- Can slow one’s breathing
- Particularly dangerous with alcohol

**Benzodiazepines**, like *Xanax*®, *Valium*®, and *Librium*®, are central-nervous-system depressants prescribed to treat anxiety, acute stress reactions, and panic attacks. Dangers when abused:

- Addictive
- Can slow breathing and heartbeat, especially if combined with prescription pain medicines, certain over-the-counter cold and allergy medications, or alcohol
- Can lead to withdrawal and possible seizures when discontinued after prolonged use or high doses

**Stimulants**, like *Ritalin*® and *Adderall*®, are prescribed mainly for attention-deficit hyperactivity disorder. Dangers when abused:

- Addictive
- Can create extremely high body temperature
- Can cause seizures/irregular heartbeat

For additional information on prescription drug abuse and addiction, see:

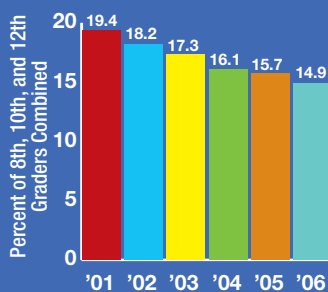
[www.drugabuse.gov/researchreports/prescription/prescription.html](http://www.drugabuse.gov/researchreports/prescription/prescription.html)

[www.scholastic.com/headsup](http://www.scholastic.com/headsup)

### Good News/Bad News About Teen Drug Abuse

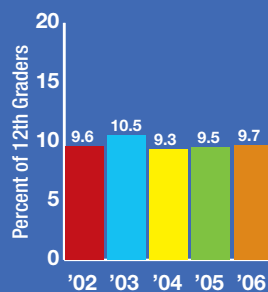
#### Good News

23% Decline in Past Month Use of Illicit Drugs by Teens Since 2001



#### Bad News

Nearly 1 in 10 High School Seniors Abused Vicodin® in the Past Year



From Monitoring the Future Study 2006

medications. (Visit [www.scholastic.com/headsup](http://www.scholastic.com/headsup) for information about the dangers of mixing hydrocodone with alcohol and other drugs.)

The steady decline in drug use noted in the MTF Study is encouraging. Teens are getting the message about the dangers and serious consequences of drug abuse. But, unfortunately, the message may not be getting through as clearly when it comes to the abuse of hydrocodone and other prescription medications.

# HEADS UP: WHAT DO YOU KNOW?

Answer the questions below to test yourself on vocabulary and facts you learned in the article “The Lowdown on Hydrocodone.”

## VOCABULARY

Match each word in Column A to its meaning in Column B.

### Column A

1. opioid
2. morphine
3. opioid receptors
4. nucleus accumbens

### Column B

- A. analgesic derived from poppies
- B. proteins found in the brain, spinal cord, and gastrointestinal tract
- C. pain reliever acting on the central nervous system
- D. key structure of the brain involved in reward, motivation, and addiction

## READING COMPREHENSION: Multiple Choice

Fill in the circle next to the correct answer for the multiple-choice questions below.

1. Overall drug use among teens is
  - (A) minimal.
  - (B) going up.
  - (C) going down.
  - (D) the same.
2. What prescription drug is abused by one out of ten high school seniors?
  - (A) Valium®
  - (B) Librium®
  - (C) Ritalin®
  - (D) Vicodin®
3. As an opioid, hydrocodone is in the same drug class as
  - (A) Tylenol®.
  - (B) heroin.
  - (C) alcohol.
  - (D) antihistamines.
4. Both opioids and benzodiazepines can slow a person’s breathing.
  - (A) true
  - (B) false
5. Stimulants can lower a person’s body temperature.
  - (A) true
  - (B) false

## BONUS: Making Smart Choices

The article “The Lowdown on Hydrocodone” discusses the dangers associated with the abuse of hydrocodone and other prescription drugs. If you’re faced with a situation involving the abuse of prescription drugs, it’s important to make smart choices. Here are some things to remember:

- If you have a physical or emotional problem that you need help with, talk to a doctor, nurse, or school counselor.
- A doctor knows important specifics about each patient and can monitor progress when drugs are prescribed.
- It is illegal to use or sell medications prescribed for someone else.

Considering these facts, as well as those in the article “The Lowdown on Hydrocodone,” how might you respond to the following scenarios?

1. Your back hurts a little and a friend offers you a pill she got from her mother’s medicine cabinet. “It’s for pain,” she says. “My mom used it after her surgery.” You wonder, “Should I take it?”
2. You’re at a party and somebody offers you a prescription medication, saying “Don’t worry, it’s legal. Look at all the celebrities who are doing it.”
3. You’ve been prescribed a pain reliever by a doctor. You think, “If one pill every four hours is good, wouldn’t three pills every four hours speed up my recovery?”

