Drug Enforcement Administration
Diversion Control Division
Drug & Chemical Evaluation Section

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HYDROCODONE

(Trade Names: Vicodin®, Lortab®, Lorcet-HD®, Hycodan®, Vicoprofen®)

Introduction:

Hydrocodone is a prescription medication approved by the United States Food and Drug Administration (FDA) for the treatment of severe chronic pain. This drug continues to be encountered by law enforcement, documented in national crime lab reports, reported to poison control centers, and diverted for illicit use and abuse.

Licit Uses:

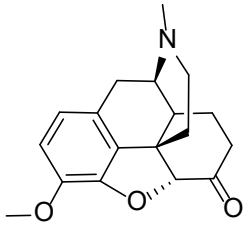
Hydrocodone is an antitussive (cough suppressant) and narcotic analgesic agent for the treatment of moderate to moderately severe pain. Studies indicate that hydrocodone is as effective, or more effective, than codeine for cough suppression and nearly equipotent to morphine for pain relief.

According to IQVIA National Prescription Audit™, total prescriptions for all products containing hydrocodone dispensed in the United States reached a peak of approximately 144.5 million in 2011 before declining to 93.7 million in 2016, 56.5 million in 2021, and 47.4 million in 2024. Hydrocodone is marketed in several hundred brand name and generic products, most of which are combination products. The most frequently prescribed combination is hydrocodone and acetaminophen (e.g., Vicodin® and Lortab®).

In response to the opioid crisis, there have been ongoing efforts to implement best practices, revise clinical guidelines, and reduce prescriptions for hydrocodone.

Chemistry:

Hydrocodone [4,5α-epoxy-3-methoxy-17-methyl-morphinan-6-one; dihydrocodeinone; CAS: 125-29-1] is a semi-synthetic opioid most closely related to codeine in structure and morphine in producing opiate-like effects. The chemical structure of hydrocodone is shown below:



Pharmacology:

The first report that suggested that hydrocodone produces euphoria and habituation symptoms was published in 1923. The first report on hydrocodone dependence and addiction was published in 1961.

Hydrocodone exerts its principle pharmacological effects through agonistic binding to opioid receptors. Hydrocodone primarily binds and activates the *mu*-opioid receptor in the central nervous system and possesses analgesic and antitussive effects. Binding of hydrocodone to this receptor also results in euphoria, respiratory depression, decreased gastrointestinal motility, and physical dependence. Additionally, hydrocodone is converted to hydromorphone by the cytochrome P450 enzyme, CYP2D6.

As with most opiates, abuse of hydrocodone is associated with tolerance, dependence, and addiction. The co-formulation with acetaminophen carries an additional risk of liver toxicity when high, acute doses are consumed. Some individuals who abuse very high doses of acetaminophen-containing hydrocodone products may be spared this liver toxicity if they have been chronically taking these products and have escalated their dose slowly over a long period of time.

Illicit Uses:

Hydrocodone is abused for its opioid effects. Widespread diversion of hydrocodone via fraudulent call-in prescriptions, altered prescriptions, theft, and illicit purchases from internet sources currently exists but has been made more difficult by the present controls placed on hydrocodone products. Hydrocodone pills are the most frequently encountered dosage form in illicit traffic. Hydrocodone is generally abused orally, often in combination with alcohol.

America's Poison Centers reported that in 2022, hydrocodone was associated with 1,420 case mentions, 514 single exposures, and 3 deaths in the United States. In 2023, hydrocodone was associated with 1,458 case mentions and 523 single exposures, but no deaths in the United States.

The National Survey on Drug Use and Health indicated that in 2024, 3.4 million individuals (1.2% of the population) aged 12 years or older reported misusing hydrocodone products within the past year. This incidence has decreased since 2015 when 7.2 million individuals (2.7% of the population) aged 12 years or older reported past-year misuse of hydrocodone.

The 2025 Monitoring the Future Study Annual Report estimated annual use of Vicodin without a doctor's orders has decreased overall since 2009. For 2024, the prevalence of past-year use of Vicodin without a doctor's orders was 0.9% for 8th graders, 1.0% for 10th graders, and 0.7% for 12th graders. Of note, there was a significant increase in past-year misuse among 10th graders in 2024.

User Population:

Every age group has been affected by the relative ease of hydrocodone availability and the perceived safety of these products by medical prescribers. Sometimes viewed as a "white collar" addiction, hydrocodone abuse, while decreasing, persists among all ethnic and economic groups.

Illicit Distribution:

Hydrocodone has been encountered in tablets, capsules, and liquid form on the illicit market. However, hydrocodone tablets with the co-ingredient acetaminophen is the most frequently encountered form. Hydrocodone is not typically found to be clandestinely produced. Diverted pharmaceuticals are the primary source of the drug for abuse purposes. Doctor shopping, altered or fraudulent prescriptions, fraudulent call-in prescriptions, diversion by some physicians and pharmacists, and drug theft are major sources of the diverted drug.

DEA's National Forensic Laboratory Information System (NFLIS) Drug database collects scientifically verified data on drug items and cases submitted to and analyzed by participating federal, state, and local forensic drug laboratories. NFLIS-Drug received over 45,500 reports of hydrocodone in 2010, over 27,000 in 2015, over 9,200 in 2020, and over 4,700 in 2024.

Control Status:

Hydrocodone is controlled in schedule II of the Controlled Substances Act.

Comments and additional information are welcomed by the Drug and Chemical Evaluation Section; Fax 571-362-4250, Telephone 571-362-3249, or Email DPE@dea.gov.