

# Drug Fact Sheet

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## Dextromethorphan (DXM)

### Overview

DXM is a cough suppressor found in more than 120 over-the-counter (OTC) cold medications, either alone or in combination with other drugs such as analgesics (e.g. acetaminophen), antihistamines (e.g. chlorpheniramine), decongestants (e.g. pseudoephedrine) and/or expectorants (e.g. guaifenesin). The typical adult dose for cough is 15 or 30 mg taken three to four times daily. The cough-suppressing effects of DXM persist for 5 to 6 hours after taken. When taken as directed, side-effects are rarely observed.



### Street names

CCC, Dex, DXM, Poor Man's PCP, Robo, Rojo, Skittles, Triple C, Velvet

### Looks like

Cough syrup, tablets, capsules, powder

### Methods of abuse

DXM is abused in high doses to experience euphoria and visual and auditory hallucinations. Abusers take various amounts depending on their body weight and the effect they are attempting to achieve (see box below). Some abusers ingest 250 to 1,500 milligrams in a single dosage, far more than the recommended therapeutic dosages described above. Illicit use of DXM is referred to on the street as "Robo-tripping," "skittling" or "dexing." The first two terms are derived from the products that are most commonly abused, Robitussin and Coricidin HBP. DXM abuse has traditionally involved drinking large volumes of the OTC liquid cough preparations. More recently, however, abuse of tablet and gel capsule preparations has increased. These newer, high-dose DXM products have particular appeal for abusers: They are much easier to consume; they eliminate the need to drink large volumes of unpleasant-tasting syrup; and they are easily portable and concealed, allowing an abuser to continue to abuse DXM throughout the day, whether at school or work. DXM powder, sold over the Internet, is also a source of DXM for abuse. (The powdered form of DXM poses additional risks to the abuser due to the uncertainty of composition and dose.) DXM is also distributed in illicitly manufactured tablets containing only DXM or mixed with other drugs such as pseudoephedrine and/or methamphetamine. DXM is abused by individuals of all ages but its abuse by teenagers and young adults is of particular concern. This abuse is fueled by DXM's OTC availability and extensive "how to" abuse information on various web sites. The 2006 Monitoring the Future (MTF) showed that 4%, 5%, and 7% of 8th, 10th, and 12th grade students, respectively, reported nonmedical use of DXM during the previous year. This was the first year MTF added DXM to the survey for students.

### Affect on mind

Some of the many psychoactive effects associated with high-dose DXM include confusion, inappropriate laughter, agitation, paranoia, hallucinations and other sensory changes, including the feeling of floating and changes in hearing and touch. Long-term abuse of DXM is associated with severe psychological dependence. Abusers of DXM describe the following four dose-dependent "plateaus:" Plateau Dose (mg) Behavioral Effects 1st 100–200 Mild stimulation 2nd

200–400 Euphoria and hallucinations  
3rd 300– 600 Distorted visual perceptions  
Loss of motor coordination  
4th 500-1500 Out-of-body sensations

### **Affect on body**

DXM intoxication involves becoming over-excitability or lethargy, loss of coordination, slurred speech, sweating, hypertension and/or involuntary spasmodic movement of the eyeballs. The use of high doses of DXM in combination with alcohol or other drugs is particularly dangerous, and deaths have been reported. Approximately 5-10% of Caucasians are poor DXM metabolizers, at increased risk for overdoses and deaths. DXM taken with antidepressants can be life threatening. As noted above, OTC products that contain DXM often contain other ingredients such as acetaminophen, chlorpheniramine, and guaifenesin that have their own effects, such as liver damage, rapid heart rate, lack of coordination, vomiting, seizures and coma. In order to circumvent the many side effects associated with these other ingredients, a simple chemical extraction procedure has been developed and published on the Internet that removes most of these other ingredients in cough syrup.

### **Drugs causing similar effects**

Depending on the dose, DXM can have effects similar to marijuana or Ecstasy. In high doses its out-of-body effects are similar to those of Ketamine or PCP.

### **Overdose effects**

DXM overdose can be treated in an emergency room setting and generally does not result in severe medical consequences or death. Most DXM-related deaths are caused by ingesting the drug in combination with other drugs. DXM-related deaths also occur from impairment of the senses, which can lead to accidents. In 2003, a 14-year-old boy in Colorado who abused DXM died when he was hit by two cars as he attempted to cross a highway. State law enforcement investigators suspect that the drug affected the boy's depth perception and caused him to misjudge the distance and speed of the oncoming vehicles.

### **Legal status in the United States**

DXM is a legally marketed cough suppressant that is neither a controlled substance nor a regulated chemical under the Controlled Substances Act (CSA). DEA is currently reviewing DXM for possible control.

### **Common places of origin**

Much of what is abused is diverted from legitimate use. DXM abusers can obtain the drug at almost any pharmacy or supermarket, seeking out the products with the highest concentration of the drug from among all the OTC cough and cold remedies that contain it. DXM products and powder can also be purchased on the Internet.

