

# Youth and Prescription Drug Abuse



*One in five youths in the United States has misused a prescription drug. Nearly 1 in 20 has misused OxyContin in the past year.*



When talking to their teens about drugs, parents may not immediately think of the medicine cabinet. However, the average age at which youths begin to experiment with prescription pain relievers is 16 years old.<sup>1</sup> The *nonmedical use of prescription drugs*—that is, their use without a doctor’s prescription or in a manner in which the drugs were not intended—is much more prevalent today than it was prior to the mid-1990s, when many of today’s parents were themselves teenagers.<sup>2-4</sup> Youths aged 12–17 now make up approximately a third of all new abusers of these drugs.<sup>5</sup> National data indicate that approximately 2.5 million youths in the United States have misused or abused prescription drugs in their lifetime.<sup>5</sup> One in five high school students reports having taken at least one prescription drug in his or her lifetime without a doctor’s prescription.<sup>6</sup> After marijuana, the prevalence of nonmedical prescription drug use now exceeds the prevalence of all other illicit drug use among youths.<sup>5,7</sup>

Although parents may be reluctant to talk about drugs too early, the use of prescription drugs is of concern even among younger adolescents. More than 269,000 children aged 12–13 used psychotherapeutic drugs nonmedically during 2012.<sup>8</sup> The majority of these (232,000) involved prescription pain relievers.<sup>8</sup>



The types of prescription drugs misused by youths span a broad range of medications, including oxycodone pain relievers (e.g., Percocet®, Percodan®, Tylox®, OxyContin®); hydrocodone pain relievers (e.g., Vicodin®, Lortab®, Lorcet®/Lorcet Plus®); stimulants such as methylphenidate (e.g., Ritalin®, Concerta®), amphetamine-dextroamphetamine (e.g., Adderall®), dexamethylphenidate (e.g., Focalin®), and dextroamphetamine (e.g., Dexedrine®); and sedatives such as Zolpidem (e.g., Ambien®, Edluar®, Zolpimist®). When used as directed, these medications may provide effective treatment across many medical conditions. Among high school students, the annual prevalence of nonmedical use of OxyContin® and Vicodin® in 2011 was 4.9 percent and 8.1 percent, respectively, making these among the most frequently abused drugs by youths.<sup>2</sup>

Because these prescription drugs have legitimate medical uses and are legal when used correctly, youths may not fully understand the risks associated with their nonmedical use. However, prescription drug abuse carries risks ranging from slowed brain activity and irregular heartbeats to dangerously high body temperature, heart failure, or lethal seizures.<sup>9</sup> More than 1 million emergency department (ED) visits in 2009 involved nonmedical use of pharmaceuticals or dietary supplements.<sup>10</sup> Prescription pain relievers were present in half of nonmedical use ED visits, and drugs often used to treat anxiety or sleep disorders were present in over a third.<sup>10,11</sup> National data suggest that unintentional overdose deaths involving opioid pain relievers have quadrupled since 1999.<sup>12</sup> More people now die from overdoses of prescription pain relievers than of heroin and cocaine.<sup>12</sup>

In addition to the short-term health risks, initiating prescription drug and other substance use during adolescence carries long-term risks. Beginning drug use in adolescence is associated with increased likelihood of developing abuse or dependence problems later and also with increased likelihood of polysubstance abuse.<sup>13,14</sup>

Almost half of youths who misuse prescription drugs also report using at least two other drugs, most often marijuana and alcohol.<sup>3</sup> The risk of overdose is increased when prescription medications are used in combination with alcohol or other drugs. More than three-fourths (77 percent) of youth ED visits involving narcotics in 2009 included multiple drugs.<sup>11</sup>

### ■ *Which Youths Are at Greater Risk*

White youths are the ethnic group most likely to report ever having used a prescription drug nonmedically, followed by Hispanic/Latino adolescents and then African Americans.<sup>6,15-17</sup>

Evidence on the prevalence of use by gender is mixed, with some studies finding no difference by gender and others finding increased odds of use among either female or male youths.<sup>5,6,15-20</sup> However, female gender consistently was associated with greater pain reliever use among youths and, to a lesser extent, with tranquilizer use.<sup>5,15-19</sup> The prevalence of prescription drug misuse rises with age during adolescence, peaking in late adolescence or young adulthood.<sup>5,6,15,18</sup> Risk factors related to the misuse of prescription drugs include physical and mental health problems, although it is difficult to know whether such problems lead to or are caused by misuse.<sup>15-17,20</sup> A history of use of other illicit drugs and delinquent behavior are consistently associated with nonmedical use of prescription medication among youths.<sup>15-20</sup> Prescription drug misuse among youths has also been linked to weak bonds to school and family, poor school performance, risk taking and sensation seeking, and peer or parent support of misuse.<sup>15-20</sup> In addition, relatively low annual family income and lack of insurance have both been linked to the nonmedical use of pain relievers and stimulants.<sup>15,18-20</sup> Youths who live in rural areas are at higher risk for abuse of selected prescription drugs, including opioid pain relievers, compared to youths living in urban areas.<sup>21</sup>

### ■ *Why Youths Use Prescription Drugs*

Youths may perceive that because prescription drugs have legal and legitimate medical uses, they are a safer alternative to other types of drugs.<sup>22,23</sup> Youths may believe that their parents would be less concerned about the use of prescription drugs than of illicit or street drugs.<sup>22-24</sup> When asked why they misuse prescription drugs, youths' reasons vary by drug classification.<sup>25</sup> For pain reliever or tranquilizer misuse, self-medication is the most common motivation; for example, youths report tranquilizer misuse in an effort to treat insomnia, and as many as half of all youths who misuse prescription opioids may be seeking relief for physical pain.<sup>24,25</sup> A smaller proportion of youths report recreational

reasons for using pain relievers or tranquilizers, such as experimental use or to get high. In contrast, youths with nonmedical stimulant use tend to report recreational motives about as often as self-medicating motives, including desire for increased concentration and alertness, to study or stay awake, to "party," or to get high.<sup>25,26</sup> Finally, poisoning, often with a mix of prescription drugs, is one of the top three most common youth suicidal acts.<sup>27</sup>

### ■ *How Youths Obtain Prescription Drugs and Pharmaceuticals in the Home*

Because prescription medications may be found in the household or acquired from friends or family, youths may find them easier to obtain than other types of illicit drugs. Nearly half of youths (47 percent) say it is easy to obtain prescription drugs from a parent's medicine cabinet.<sup>28</sup> Nearly two-thirds of youths aged 12–17 who abused pain relievers received them from a friend, family member, or relative.<sup>5,29</sup> Although relatively few youths with legal prescriptions report selling their medications, up to 25 percent have either traded or given them away.<sup>30,31</sup> Some drug abuse experts and law enforcement officials have reported "pharm" or "skittles parties" at which youths are served opioid pain pills and other prescription drugs obtained from parents' medicine cabinets and then mixed in a bowl. Although the frequency is believed to be relatively low, youths are in greater danger of ingesting unfamiliar or unidentified pills when sharing prescription drugs in this manner, making treatment a challenge.<sup>32</sup> In addition, suicidal youth tend to empty the medicine cabinet. A medicine cabinet filled with leftover pills from old prescriptions or with prescription opiates raises the chance that an attempt will be lethal.



## ■ *Recognizing the Signs of Prescription Drug Abuse*

Parents and teachers can recognize the warning signs of prescription drug abuse, including the following:<sup>28</sup>

- Missing prescription medications from your medicine cabinet;
- Additional filled prescriptions on your pharmacy record that you did not order;
- Changes in a youth's physical health or personality, including
  - » Fatigue or excessive sleeping, red or glazed eyes, or repeated health complaints;
  - » Sudden mood changes, such as irritability, negative attitude, or personality changes;
  - » General loss of interest in hobbies, sports activities, or social activities;
  - » Decreased interest—or obsessive interest—in schoolwork;
  - » Secretiveness or withdrawal from family; and
  - » Changes in friends.

Parents should contact their teen's physician or other health professional if they observe these signs in their teen.

## ■ *How Parents Can Help*

The correct storage and disposal of household medications are crucial strategies in the prevention of teen prescription drug abuse:

- Keep medications in a safe place.
- Lock up prescription pain relievers.
- Be aware of what types of medications you have in your household.
- Monitor your medications; keep track of how many pills are in your prescription bottles.
- Dispose of old or unused medications properly. Many people hold on to prescription medications after they are no longer needed or have expired. Your pharmacist can provide more detail about how to dispose of unneeded drugs in the proper manner.

Talk to family members, neighbors, and friends with whom your teen spends time; encourage them to safeguard the medications stored in their homes.

Only 22 percent of youths report discussing the risks of abusing any prescription drug without a doctor's prescription with their parents.<sup>28</sup> However, parental communication may substantially influence youths; youths who learn in the home about the dangers of drug use are up to 50 percent less likely to use drugs than those who are not taught about this at home. Here are some ways that parents can help:<sup>28</sup>

- Set a good example: over a quarter (28 percent) of parents have themselves taken a prescription drug without having their own prescription for it.
- Talk to your teen about prescription medications.
- Provide a safe environment for your teen to talk or ask questions about drug misuse or abuse.
- Don't fall into the trap of thinking only "illegal" drugs are a threat; remind your teen that it is also illegal to take someone else's prescription or to share their prescriptions with others.
- Monitor your teen's use of the Internet, especially for any illegal online purchases.
- Encourage your teen to ask you or a doctor about the negative side effects of a prescribed medication and about what to do in case of a suspected negative effect.
- Alert your family physician if you are concerned about your child, and ask the physician to talk to your teen about the proper use of prescription medicines.
- Share information at Parent Teacher Association meetings or other groups where parents gather.



## References

- 1 Meier, E. M., Troost, J. P., & Anthony, J. C. (2012). Extramedical use of prescription pain relievers by youth aged 12 to 21 years in the United States. *Archives of Pediatric and Adolescent Medicine*, 166(9), 803–807.
- 2 Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2012). *Monitoring the Future national survey results on drug use, 1975–2011: Volume II, College students and adults ages 19–50*. Ann Arbor, MI: Institute for Social Research, University of Michigan.
- 3 National Institute on Drug Abuse. (2011, October). *Prescription drugs: Abuse and addiction* (NIH Publication No. 11-4881). Washington, DC: U.S. Department of Health and Human Services. Retrieved from <http://www.drugabuse.gov/publications/research-reports/prescription-drugs>
- 4 Community Epidemiology Work Group. (2004, November). *Epidemiologic trends in drug abuse: Advance report: Prescription drug abuse, June 2004* (NIH Publication No. 04-5363A). Bethesda, MD: National Institute on Drug Abuse. Retrieved from <http://www.drugabuse.gov/PDF/CEWG/AdvReport604.pdf>
- 5 Substance Abuse and Mental Health Services Administration. (2013). *Results from the 2012 National Survey on Drug Use and Health: Detailed tables*. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- 6 Centers for Disease Control and Prevention. (2010). CDC survey finds that 1 in 5 U.S. high school students has abused prescription drugs [Press release]. Retrieved from <http://www.cdc.gov/media/pressrel/2010/r100603.htm>
- 7 White House Office of National Drug Control Policy. (2007). *Teens and prescription drugs: An analysis of recent trends on the emerging drug threat*. Rockville, MD: Executive Office of the President.
- 8 Substance Abuse and Mental Health Services Administration. (2013). *Results from the 2012 National Survey on Drug Use and Health: Detailed tables. Table 1.2A—Types of illicit drug use in lifetime, past year, and past month among persons aged 12 or 13: Numbers in thousands, 2011 and 2012*. Rockville, MD: Author.
- 9 National Institute on Drug Abuse. (N.d.). Commonly abused drugs: Health effects. Retrieved from <http://www.drugabuse.gov/drugs-abuse/commonly-abused-drugs/health-effects>
- 10 Substance Abuse and Mental Health Services Administration, Center for Behavioral Health Statistics and Quality. (2010). *The DAWN Report: Highlights of the 2009 Drug Abuse Warning Network (DAWN) findings on drug-related emergency department visits*. Rockville, MD: Author. Retrieved from: <http://www.oas.samhsa.gov/2k10/DAWN034/EDHighlights.htm>
- 11 Substance Abuse and Mental Health Services Administration. (2010). *Trends in ED visits involving nonmedical use of narcotic pain relievers*. Rockville, MD: Author.
- 12 Centers for Disease Control and Prevention. (2013). QuickStats: Number of deaths from poisoning, drug poisoning, and drug poisoning involving opioid analgesics—United States, 1999–2010. *Morbidity and Mortality Weekly Report*, 62(12), 234.
- 13 Chen, C.-Y., Storr, C. L., & Anthony, J. C. (2009). Early-onset drug use and risk for drug dependence problems. *Addictive Behaviors*, 34(3), 319–322.
- 14 McCabe, S. E., West, B. T., & Boyd, C. J. (2013). Medical use, medical misuse, and nonmedical use of prescription opioids: Results from a longitudinal study. *Pain*, 154(5), 708–713.
- 15 Young, A. M., Glover, N., & Havens, J. R. (2012). Nonmedical use of prescription medications among adolescents in the United States: A systematic review. *Journal of Adolescent Health*, 51(1), 6–17. doi:10.1016/j.jadohealth.2012.01.011
- 16 Substance Abuse and Mental Health Services Administration, Center for the Application of Prevention Technologies. (2013, September). *Risk and protective factors associated with nonmedical use of prescription drugs: A review of literature*. Rockville, MD: Author.
- 17 Colliver, J. D., Kroutil, L. A., Dai, L., & Gfroerer, J. C. (2006). *Misuse of prescription drugs: Data from the 2002, 2003, and 2004 National Surveys on Drug Use and Health* (DHHS Publication No. SMA 06-4192, Analytic Series A-28). Rockville, MD: Substance Abuse and Mental Health Services Administration, Office of Applied Studies.
- 18 Sung, H. E., Richter, L., Vaughan, R., Johnson, P. B., & Thom, B. (2005). Nonmedical use of prescription opioids among teenagers in the United States: Trends and correlates. *Journal of Adolescent Health*, 37, 44–51.
- 19 McCabe, S. E., West, B. T., Teter, C. J., & Boyd, C. J. (2012). Medical and nonmedical use of prescription opioids among high school seniors in the United States. *Archives of Pediatric and Adolescent Medicine*, 163(8), 739–744. doi:10.1001/archpediatrics.2012.85
- 20 Katz, C., El-Gabalawy, R., Keyes, K. M., Martins, S. S., & Sareen, J. (2013). Risk factors for incident nonmedical prescription opioid use and abuse and dependence: Results from a longitudinal nationally representative sample. *Drug and Alcohol Dependence*, 132(1–2), 107–113.
- 21 Young, A. M., Glover, N., & Havens, J. R. (2012). Rural adolescents' nonmedical prescription drug use: Implications for intervention. *Prevention Researcher*, 19(1), 7–9.
- 22 Manchikanti, L. (2006). Prescription drug abuse: What is being done to address this new drug epidemic? *Pain Physician*, 9(4), 287–321. Retrieved from <http://www.asipp.org/documents/PrescriptiondrugabuseWhatsbeing.pdf>
- 23 Friedman, R. (2006). The changing face of teenage drug abuse: The trend toward prescription drugs. *New England Journal of Medicine*, 354(14), 1448–1450.
- 24 McCabe, S. E., Boyd, C. J., Cranford, J. A., & Teter, C. J. (2009). Motives for nonmedical use of prescription opioids among high school seniors in the United States: Self-treatment and beyond. *Archives of Pediatric and Adolescent Medicine*, 163, 739–744.
- 25 Boyd, C. J., McCabe, S. E., Cranford, J. A., & Young, A. (2006). Adolescents' motivations to abuse prescription medications. *Pediatrics*, 118(6), 2472–2480.
- 26 Wilens, T. E., Adler, L. A., Adams, J., Sgambati, S., Rotrosen, Sawtelle, R., . . . Fusillo, S. (2008). Misuse and diversion of stimulants prescribed for ADHD: A systematic review of the literature. *Journal of the American Academy of Child and Adolescent Psychiatry*, 47(1), 21–31.
- 27 Centers for Disease Control and Prevention. (2012). Suicide prevention: Youth suicide. Retrieved from [http://www.cdc.gov/violenceprevention/pub/youth\\_suicide.html](http://www.cdc.gov/violenceprevention/pub/youth_suicide.html)
- 28 Substance Abuse and Mental Health Services Administration. (2012). *Talking to your kids about prescription drug abuse* (SMA-12-4676B1). Rockville, MD: Center for Substance Abuse Treatment. Retrieved from <http://store.samhsa.gov/shin/content/SMA12-4676B1/SMA12-4676B1.pdf>
- 29 McCabe, S. E., Cranford, J. A., Boyd, C. J., & Teter, C. J. (2007). Motives, diversion, and routes of administration associated with nonmedical use of prescription opioids. *Addictive Behaviors*, 32, 562–575
- 30 Boyd, C. J., McCabe, S. E., Cranford, J. A., & Young, A. (2007). Prescription drug abuse and diversion among adolescents in a southeast Michigan school district. *Archives of Pediatric and Adolescent Medicine*, 161, 276–281.
- 31 Ford, J. A., & Lacerenza, C. (2011). The relationship between source of diversion and prescription drug misuse, abuse, and dependence. *Substance Use & Misuse*, 46, 819–827.
- 32 Deutsch, K. (2013, November 12). "Skittles parties" on Long Island raise concerns. *Long Island Newsday*. Retrieved from <http://www.newsday.com/long-island/skittles-parties-on-long-island-raise-concerns-1.6431204>



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