



THE PATH TO SMOKING ADDICTION STARTS AT VERY YOUNG AGES

Lifetime smoking and other tobacco use almost always begins by the time kids graduate from high school.¹ Young kids' naïve experimentation frequently develops into regular smoking, which typically turns into a strong addiction – well before the age of 18 – that can overpower the most well-intentioned efforts to quit. Accordingly, any efforts to decrease future smoking levels among high school students, college-aged youths, or adults need to include a focus on reducing experimentation and regular smoking among teenagers and even pre-teens, as well. Delaying the age when kids first experiment with cigarettes or first begin smoking can also reduce the risk that they become regular or daily smokers and increase their chances of successfully quitting if they do begin regular smoking.

How Early Do Kids Try Smoking?

Very little data about smoking is regularly collected for kids under 12, but the peak years for first trying to smoke appear to be in the sixth and seventh grades, or between the ages of 11 and 13, with a considerable number starting even earlier.² For example, in a nationwide *Monitoring the Future* survey, 8.8 percent of eighth grade students reported having first smoked by the fifth grade (ages 10 and 11), and 22.3 percent of eighth graders tried smoking by the eighth grade. Two out of three 12th-graders who were current smokers had started smoking by the end of ninth grade.³

A survey of 1,663 fifth grade students in Washington State found that 30 percent of the 10- and 11-year-olds had already tried at least one cigarette, with a little less than 10 percent having tried at least two.⁴ Similarly, a 1992 survey of 10- to 17-year-old smokers in Massachusetts found that they tried their first cigarette, on average, at age 12.⁵ In 2007, a nationwide survey of high school students found that 14.2 percent had smoked at least one entire cigarette before age 13, with more ninth-graders (16.3 percent) having smoked a full cigarette than 12th-graders (13.3 percent).⁶ By the end of high school, 43.6 percent of all kids have tried smoking.⁷

How Soon Do Kids Become Regular, Daily Smokers?

More than a third of all kids who ever try smoking a cigarette become regular, daily smokers before leaving high school.⁸ In fact, the addiction rate for smoking (the percentage of experimenters who ultimately become habitual users) is higher than the addiction rates for marijuana, alcohol, or cocaine.⁹ Moreover, a September 2000 study found that symptoms of addiction – strong urges to smoke, anxiety or irritability, or unsuccessfully quit attempts – can appear in young kids within weeks or only days after occasional smoking first begins, and well before daily smoking has even started.¹⁰ A 2007 study in the *Archives of Pediatric and Adolescent Medicine* found that some youths experience tobacco dependence within a day of first inhaling.¹¹

This addictive power of cigarettes explains the findings of a *Monitoring the Future* survey that approximately six percent of tenth graders had already become regular daily smokers. In the twelfth grade, a fifth of all students have smoked in the past 30 days, and one in ten (11.2 percent) are regular, daily smokers.¹² Smoking rates among kids who drop out of high school are even higher.¹³

To look at it another way, every day more than 3,500 kids under 18 try smoking for the first time, and about 1,000 other kids who have already experimented with cigarettes become new regular daily smokers.¹⁴ Overall, nearly 80 percent of all adult smokers first become regular smokers before the age of 18 and 90 percent do so before leaving their teens.¹⁵

Although some kids who become regular smokers quit before leaving high school, almost three out of every four regular smokers in high school have already tried to quit but failed. At any given time, fewer than one in seven high school smokers have even been able to successfully stop smoking for just 30 days or more.¹⁶ While only three percent of daily smokers in high school think that they will still be smoking at all in five years, more than 60 percent are still regular daily smokers seven to nine years later.¹⁷

Although Stopping Youth Smoking Initiation is Best, Simply Delaying It Can Produce Substantial Benefits

The earlier a kid first tries smoking the higher his or her chances of ultimately becoming a regular smoker and the less likely he or she is to quit.¹⁸

Research also shows that the earlier people begin to smoke the higher the risk they have of contracting lung cancer or experiencing a range of risk factors and health problems in adulthood.¹⁹ Overall, roughly a third of all kids who become regular smokers before adulthood will eventually die from smoking.²⁰ If current trends continue more than five million of the kids, under 18, who are alive today will die from tobacco-related causes.²¹

There is also evidence that smoking is sometimes a first step toward other substance abuse—stopping or delaying that first step will reduce that risk that kids will progress to other harmful substances.²²

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More information on kids and tobacco use is available at

http://www.tobaccofreekids.org/facts_issues/fact_sheets/toll/tobacco_kids/.

¹ Substance Abuse and Mental Health Services Administration (SAMHSA), HHS, Calculated based on data in National Household Survey on Drug Abuse, 2001.

² Johnston, LD, et al., *Monitoring the Future National Survey Results on Drug Use, 1975-2007. Volume I Secondary School Students*, National Institute on Drug Abuse, Institute for Social Research, University of Michigan, NIH Publication No. 08-6418A, 2008 http://monitoringthefuture.org/pubs/monographs/vol1_2007.pdf. [This school-based study does not survey kids who have dropped out of school, who tend to have higher smoking rates].

³ Johnston, LD, et al., *Monitoring the Future National Survey Results on Drug Use, 1975-2007. Volume I Secondary School Students*, National Institute on Drug Abuse, Institute for Social Research, University of Michigan, NIH Publication No. 08-6418A, 2008.

⁴ Bowen, DJ, et al., "Description of Early Triers," *Addictive Behavior* 16(3-4):95-101, 1991.

⁵ DiFranza, JR, et al., "Tobacco Acquisition and Cigarette Brand Selection Among Youth," *Tobacco Control* 3:334-38, 1994.

⁶ U.S. Centers for Disease Control and Prevention (CDC), "Youth Risk Behavior Surveillance, United States, 2007," *Morbidity and Mortality Weekly Report (MMWR)* 57(SS-4), June 6, 2008 <http://www.cdc.gov/mmwr/pdf/ss/ss5704.pdf>.

⁷ Johnston, LD, et al., *Monitoring the Future National Survey Results on Drug Use, 1975-2009. Volume I Secondary School Students*, National Institute on Drug Abuse, Institute for Social Research, University of Michigan, NIH Publication No. 08-6418A, 2009 <http://monitoringthefuture.org/data/09data/pr09ciq1.pdf>.

⁸ CDC, "Selected Cigarette Smoking Initiation and Quitting Behaviors Among High School Students—United States, 1997," *MMWR* 47(19):386-389, May 22, 1998, <http://www.cdc.gov/mmwr/preview/mmwrhtml/00052816.htm>.

⁹ Addiction rates can be determined by looking at the ratio between the number of people who try a substance and the number who become regular daily users. This data is available from both the Monitoring the Future Studies and the National Household Surveys on Drug Abuse. See, also, CDC, "Symptoms of Substance Dependence Associated with Use of Cigarettes, Alcohol, and Illicit Drugs—United States, 1991-1992," *MMWR* 44(44):830-831,837-839, November 10, 1995, <http://www.cdc.gov/mmwr/preview/mmwrhtml/00039501.htm>; Anthony, JC, et al., "Comparative Epidemiology of Dependence on Tobacco, Alcohol, Controlled Substances, and Inhalants: Basic findings from the National Comorbidity Survey," *Experimental and Clinical Psychopharmacology* 2:244-268, 1994, www.hcp.med.harvard.edu/ncs.

¹⁰ DiFranza, JR, et al., "Initial Symptoms of Nicotine Dependence in Adolescents," *Tobacco Control* 9:313-19, September 2000.

¹¹ DiFranza, JR, et al., "Symptoms of Tobacco Dependence After Brief Intermittent Use," *Archives of Pediatric and Adolescent Medicine* 161(7), July 2007.

¹² Johnston, LD, et al., *Monitoring the Future National Survey Results on Drug Use, 1975-2009. Volume I Secondary School Students*, National Institute on Drug Abuse, Institute for Social Research, University of Michigan, NIH Publication No. 08-6418A, 2009. <http://monitoringthefuture.org/data/09data/pr09ciq1.pdf>.

¹³ See, e.g., Grunbaum JA, et al., "Youth Risk Behavior Surveillance—National Alternative High School Youth Risk Behavior Survey, United States, 1998," *MMWR Surveillance Summary* 48(7):1-44, October 29, 1999; Weller, NF, et al., "Health Risk Behaviors of Texas Students Attending Dropout Prevention/Recovery Schools in 1997," *Journal of School Health* 69(1):22-28, January 1999; de Moor, C, et al., "Patterns and Correlates of Smoking and Smokeless Tobacco Use Among Continuation High School Students," *Addictive Behavior* 19(2):175-84, March-April 1994.

¹⁴ SAMHSA, *Results from the 2008 National Survey on Drug Use and Health, Detailed Tables*. <http://www.oas.samhsa.gov/NSDUH/2K8NSDUH/tabs/sect4peTabs10to11.pdf>.

¹⁵ SAMHSA, Calculated based on data in 2006 *National Household Survey on Drug Use and Health*.

¹⁶ CDC, "Selected Cigarette Smoking Initiation and Quitting Behaviors Among High School Students—United States, 1997," *MMWR* 47(19):386-389, May 22, 1998, <http://www.cdc.gov/mmwr/preview/mmwrhtml/00052816.htm>.

¹⁷ Johnston, LD, et al., *National survey results on drug use from the Monitoring the Future study, 1975-1997, Volume I: Secondary school students*, National Institute on Drug Abuse, Rockville, MD, NIH Publication No. 98-4345, 1998.

¹⁸ See, e.g., Khuder, SA, et al., "Age at Smoking Onset and its Effect on Smoking Cessation," *Addictive Behavior* 24(5):673-7, September-October 1999; D'Avanzo, B, et al., "Age at Starting Smoking and Number of Cigarettes Smoked," *Annals of Epidemiology* 4(6):455-59, November 1994; Chen, J & Millar, WJ, "Age of Smoking Initiation: Implications for Quitting," *Health Reports* 9(4):39-46, Spring 1998; Everett, SA, et al., "Initiation of Cigarette Smoking and Subsequent Smoking Behavior Among U.S. High School Students," *Preventive Medicine* 29(5):327-33, November 1999; Breslau, N & Peterson, EL, "Smoking cessation in young adults: Age at initiation of cigarette smoking and other suspected influences," *American Journal of Public Health* 86(2):214-20, February 1996.

¹⁹ Hegmann, KT, et al., "The Effect of Age at Smoking Initiation on Lung Cancer Risk," *Epidemiology* 4(5):444-48, September 1993; Lando, HA, et al., "Age of Initiation, Smoking Patterns, and Risk in a Population of Working Adults," *Preventive Medicine* 29(6 Pt 1):590-98, December 1999.

²⁰ CDC, "Incidence of Initiation of Cigarette Smoking—United States, 1965-1996," *MMWR* 47(39):837-840, October 9, 1998, <http://www.cdc.gov/mmwr/preview/mmwrhtml/00055070.htm>.

²¹ CDC, "Projected Smoking-Related Deaths Among Youth—United States," *MMWR* 45(44):971-974, November 8, 1996, <http://www.cdc.gov/mmwr/preview/mmwrhtml/00044348.htm>.

²² See, e.g., HHS, *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*, 1994; Center on Addiction and Substance Abuse, Columbia University, *Cigarettes, Alcohol, Marijuana: Gateways to Illicit Drug Use*, October 1994. See, also, Chaloupka, F, et al., "Do Higher Cigarette Prices Encourage Youth to Use Marijuana?," National Bureau of Economic Research, February 1999, www.uic.edu/~fjc/Presentations/Papers/W6939.pdf, Campaign for Tobacco-Free Kids Factsheet, *Smoking and Other Drug Use*, <http://www.tobaccofreekids.org/research/factsheets/pdf/0106.pdf>.