



## THE PATH TO TOBACCO ADDICTION STARTS AT VERY YOUNG AGES

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Lifetime smoking and other tobacco use almost always begins by the time kids graduate from high school.<sup>1</sup> 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. Any efforts to decrease future tobacco use levels among high school students, college-aged youths or adults must include a focus on reducing experimentation and regular tobacco use among teenagers and pre-teens.

### How Early Do Kids Try Smoking?

Every day about 1,600 kids under 18 try smoking for the first time.<sup>2</sup> Though very little data about smoking is regularly collected for kids under 12, 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.<sup>3</sup>

A 2019 nationwide survey found that 7.9 percent of high school students had tried cigarette smoking (even one or two puffs) before the age of 13.<sup>4</sup> The 2019 nationwide Monitoring the Future Study reports that 22.3 percent of twelfth grade students, 14.2 percent of tenth grade students, and 10.0 percent of eighth grade students had ever tried smoking.<sup>5</sup>

According to the National Survey on Drug Use and Health, nearly 80 percent of all adult smokers begin smoking by age 18; and 90 percent do so before leaving their teens.<sup>6</sup> One study found that in 2018, 51.3% of lifetime cigarette users had initiated use at 14 years or younger and more than a quarter started by 12 years of age.<sup>7</sup>

### How Soon Do Kids Become Regular, Daily Smokers?

Every day more than 235 kids who have already experimented with cigarettes become new regular, daily smokers.<sup>8</sup> This is because nicotine is a highly addictive drug; and adolescents, who are still going through critical periods of growth and development, are particularly vulnerable to its effects.<sup>9</sup> Research on nicotine dependence shows that key symptoms of addiction—strong urges to smoke, anxiety, irritability and unsuccessful 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.<sup>10</sup> Some youths experience tobacco dependence within a day of first inhaling.<sup>11</sup> According to a 2010 report prepared for the European Union by a group of distinguished scientists, tobacco has a substantially higher risk of causing addiction than heroin, cocaine, alcohol, or cannabis.<sup>12</sup>

This early exposure and addiction to nicotine can negatively impact brain development and have big implications for future tobacco use and smoking-related harms. As reported by the U.S. Surgeon General, “the addiction caused by the nicotine in tobacco smoke is critical in the transition of smokers from experimentation to sustained smoking and, subsequently, in the maintenance of smoking for the majority of smokers who want to quit.”<sup>13</sup> Nearly half (47%) of adult smokers transition to regular, daily smoking before age 18; and eight in ten transition to regular, daily smoking before they turn 21.<sup>14</sup>

While some kids will quit smoking before leaving high school, the majority will try to quit and fail. According to a 2015 national survey, nearly half (45.4%) of current high school smokers had tried quitting.<sup>15</sup> Because of the addictive power of nicotine, however, about three out of four teen smokers end up smoking into adulthood, even if they intend to quit after a few years.<sup>16</sup>

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

Delaying the age when kids first experiment or begin using tobacco can reduce the risk that they transition to regular or daily tobacco use and increase their chances of successfully quitting, if they do become regular users.<sup>17</sup> Delaying the use of tobacco may also help reduce the duration and intensity of a person's smoking, which are strongly associated with increased risk for serious health conditions.

Research shows that risk for smoking-caused diseases is affected not just by how much people smoke but also by how long they smoke. An earlier age of smoking initiation means that the potential duration of smoking throughout a person's lifespan is increased; therefore, that person's risk of developing lung cancer or experiencing a range of risk factors and smoking-related health problems in adulthood is also increased.<sup>18</sup> Smokers who started smoking at younger ages are also among the heaviest users.<sup>19</sup>

Overall, roughly one-third of all kids who become regular smokers before adulthood will eventually die from smoking.<sup>20</sup> If current trends continue, 5.6 million of the kids under 18 who are alive today will die from tobacco-related causes.<sup>21</sup>

Evidence also shows that smoking can be a first step toward other substance abuse. Stopping or delaying that first step will reduce the risk that kids will progress to using other harmful substances.<sup>22</sup>

### **Campaign for Tobacco-Free Kids, September 15, 2020 / Maddy Bolger**

**More information on kids and tobacco use is available at**

<https://www.tobaccofreekids.org/fact-sheets/tobaccos-toll-health-harms-and-cost/tobacco-and-kids>.

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<sup>1</sup> Substance Abuse and Mental Health Services Administration (SAMHSA), HHS, Calculated based on data in National Household Survey on Drug Abuse, 2012. See also, HHH, "Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General," 2012, <http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/full-report.pdf>.

<sup>2</sup> Substance Abuse and Mental Health Services Administration (SAMHSA), HHS, *Results from the 2019 National Survey on Drug Use and Health, NSDUH: Detailed Tables*, 2019, <https://www.samhsa.gov/data/report/2019-nsduh-detailed-tables>.

<sup>3</sup> Miech, RA, et al., *Monitoring the Future National Survey Results on Drug Use, 1975-2015: Volume 1, Secondary School Students*, Ann Arbor, Institute for Social Research, The University of Michigan, 2016. [http://www.monitoringthefuture.org/pubs/monographs/mtf-vol1\\_2015.pdf](http://www.monitoringthefuture.org/pubs/monographs/mtf-vol1_2015.pdf).

<sup>4</sup> CDC, *2019 High School Youth Risk Behavior Survey Data*. Available at <https://yrbs-explorer.services.cdc.gov/#/tables?questionCode=H31&topicCode=C02&year=2019>. Accessed on August 21, 2020.

<sup>5</sup> University of Michigan, Monitoring the Future Study, 2019, <http://monitoringthefuture.org/data/19data/19drtbl1.pdf>.

<sup>6</sup> United States Department of Health and Human Services. Substance Abuse and Mental Health Services Administration. Center for Behavioral Health Statistics and Quality. National Survey on Drug Use and Health, 2014. ICPSR36361-v1. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2016-03-22. <http://doi.org/10.3886/ICPSR36361.v1>.

<sup>7</sup> Evans-Polce, R et al., "Trends in E-Cigarette, Cigarette, Cigar, and Smokeless Tobacco Use Among US Adolescent Cohorts, 2014–2018," *American Journal of Public Health*, 110(2): 163-165, February 2020.

<sup>8</sup> SAMHSA, HHS, *Results from the 2019 National Survey on Drug Use and Health, NSDUH: Detailed Tables*, 2019, <https://www.samhsa.gov/data/report/2019-nsduh-detailed-tables>.

<sup>9</sup> HHS, *The Health Consequences of Smoking—50 Years of Progress, A Report of the Surgeon General*, 2014, <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/>. See also, HHS, "Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General," 2012, <http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/full-report.pdf>.

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

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

<sup>12</sup> Scientific Committee on Emerging and Newly Identified Health Risks ("SCENIHR"), *Addictiveness and Attractiveness of Tobacco Additives*, 2010.

<sup>13</sup> HHS, *The Health Consequences of Smoking—50 Years of Progress, A Report of the Surgeon General*, 2014, <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/>. See also, HHS, *How Tobacco Smoke Causes Disease: The Biology and Behavioral Basis for Smoking-Attributable Disease: A Report of the Surgeon General*, 2010, <http://www.ncbi.nlm.nih.gov/books/NBK53017/>.

<sup>14</sup> United States Department of Health and Human Services. Substance Abuse and Mental Health Services Administration. Center for Behavioral Health Statistics and Quality. National Survey on Drug Use and Health, 2014. ICPSR36361-v1. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2016-03-22. <http://doi.org/10.3886/ICPSR36361.v1>.

<sup>15</sup> CDC, "Youth Risk Behavior Surveillance—United States, 2015," *MMWR*, 65(6), June 10, 2016. [http://www.cdc.gov/healthyyouth/data/yrbs/pdf/2015/ss6506\\_updated.pdf](http://www.cdc.gov/healthyyouth/data/yrbs/pdf/2015/ss6506_updated.pdf).

<sup>16</sup> HHS, *Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General*, 2012.

<sup>17</sup> 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.

<sup>18</sup> See also, HHH, "Preventing Tobacco Use Among Youth and Young Adults: A Report of the Surgeon General," 2012, <http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/full-report.pdf>. See also, 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.

<sup>19</sup> HHS, *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*, 1994.

<sup>20</sup> 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>.

<sup>21</sup> HHS, *The Health Consequences of Smoking—50 Years of Progress, A Report of the Surgeon General*, 2014, <http://www.surgeongeneral.gov/library/reports/50-years-of-progress/>.

<sup>22</sup> 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](http://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>.