



## TOBACCO HARM TO KIDS

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Over 1.1 million middle and high school students still smoke. Nationwide, 5.8 percent of high school students and 2.3 percent of middle school students currently smoke.<sup>1</sup> In addition, U.S. high school boys smoke cigars at a higher rate than cigarettes (9.0% for cigars and 7.3% for cigarettes, nationally), and cigar smoking by high school boys equals or surpasses cigarette smoking in at least 33 states and DC.<sup>2</sup> 7.5 percent of U.S. high school boys (and 1.8% of high school girls) are current smokeless or spit tobacco users.<sup>3</sup> In some states, spit tobacco use among high school males is much higher than the national rate. For example, in West Virginia, Alabama, Tennessee and Ohio, 14.5 percent, 13.6 percent, 13.5 percent and 12.8 percent of high school boys use spit tobacco, respectively.<sup>4</sup>

Nearly percent of smokers begin at or before the age of 18.<sup>5</sup> There are more than 86,000 new underage daily smokers in this country each year—and roughly one-third of them will eventually die prematurely from smoking-caused disease.<sup>6</sup> According to the U.S. Surgeon General, 5.6 million kids under the age of 18 who are alive today will ultimately die from smoking-related disease.<sup>7</sup>

To make matters worse, 37.9 percent (14 million) kids aged 3 to 11 still are exposed to secondhand smoke.<sup>8</sup> In addition, 8.4 percent of all pregnant women smoke, and many non-smoking pregnant women are exposed to secondhand smoke – causing enormous harms to newborn babies.<sup>9</sup>

***Tobacco Use Harms At or Around Birth.*** Smoking and exposure to secondhand smoke among pregnant women causes spontaneous abortions, ectopic pregnancies, still-born births, low-birth-weight babies, and other pregnancy and delivery complications requiring neonatal intensive care. Exposure to nicotine during fetal development, which is a critical time for brain development, also can have lasting negative consequences on brain development.<sup>10</sup> In addition, smoking and exposure to secondhand smoke during pregnancy directly increase the risk of health and behavioral problems including: abnormal blood pressure in infants and children, cleft palates and lips, childhood leukemia, infantile colic, childhood wheezing, respiratory disorders in childhood, eye problems during childhood, intellectual disability, attention deficit disorder, behavioral problems and other learning and developmental problems.<sup>11</sup>

Each year in the United States, more than 400,000 live-born infants are exposed in utero to tobacco from pregnant women smoking.<sup>12</sup> Smoking causes more than 1,000 deaths due to perinatal conditions annually, including 400 from sudden infant death syndrome (SIDS).<sup>13</sup>

***Harm to Kids from Smoking by Family Members.*** Parental or other household smoking after birth also increases the chances that exposed children will suffer from smoke-caused coughs and wheezing, bronchitis, asthma, pneumonia, potentially fatal lower respiratory tract infections, eye and ear problems or injury or death from cigarette-caused fires. Each year, 280 children die from respiratory illness caused by secondhand smoke; and another 300 kids suffer from injuries caused by smoking-caused fires.<sup>14</sup> Secondhand smoke aggravates asthma symptoms in 400,000 to 1 million children, is responsible for between 150,000 and 300,000 new cases of bronchitis and pneumonia and 7,500 to 15,000 hospitalizations among kids (aged 18 months or younger), and causes 790,000 cases of otitis media (an acute or chronic inflammation of the middle ear) that result in office visits each year.<sup>15</sup> Moreover, in 2013, there were more than 8,000 reports of potentially toxic exposure to tobacco and nicotine products among children five years old or younger, caused primarily by young children ingesting cigarettes.<sup>16</sup>

***Harm to Youth from Their Own Smoking.*** Most people focus on the increased risk of heart disease, lung cancer and other cancers from smoking and believe that the harms to kids from their own smoking or other tobacco use do not appear for many years. In fact, many health consequences can occur quite quickly. For example:

- Beyond smoke- or nicotine-stained teeth, smokers are also more likely to suffer from periodontal disease and to have more serious periodontal disease, including tooth loss.<sup>17</sup>

- Chronic coughing, increased phlegm, emphysema and bronchitis have been well-established products of smoking for decades. Smokers are also more susceptible to influenza and are more likely to experience severe symptoms when they get the flu.<sup>18</sup>
- Smoking causes mild airway obstruction, reduced lung function and slowed growth of lung function among adolescents.<sup>19</sup>
- Teenage smokers suffer from shortness of breath almost three times more often as teens that don't smoke and produce phlegm more than twice as often as teens who don't smoke. Not surprisingly, smoking also hurts young people's physical fitness in terms of both performance and endurance—even among young people trained in competitive running.<sup>20</sup>
- The resting heart rates of young adult smokers are two to three beats per minute faster than nonsmokers, and studies have shown that early signs of heart disease and stroke can be found in adolescents who smoke.<sup>21</sup>
- Smoking is also associated with hearing loss, vision problems and increased headaches.<sup>22</sup>
- While many smokers believe that smoking relieves stress, it is actually a major cause. Smoking only appears to reduce stress because it lessens the irritability and tension caused by the underlying nicotine addiction.<sup>23</sup>
- High school seniors who are regular smokers and began smoking by the ninth grade are more than twice as likely than their nonsmoking peers to report poorer overall health; are roughly two and a half times more likely to report cough with phlegm or blood, shortness of breath when not exercising and wheezing or gasping; and are three times more likely to have seen a doctor or other health professional for an emotional or psychological complaint.<sup>24</sup>
- Smoking causes bad breath, makes smokers' homes and clothes stink, and reduces their sense of smell.<sup>25</sup>

**Campaign for Tobacco-Free Kids, September 21, 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> Centers for Disease Control (CDC), "Tobacco Product Use and Associated Factors Among Middle and High School Students—United States, 2019," *MMWR*, 68, December 6, 2019, <https://www.cdc.gov/mmwr/volumes/68/ss/pdfs/ss6812a1-H.pdf>. Current smoker defined as having smoked in the past month.

<sup>2</sup> National: CDC, "Tobacco Product Use and Associated Factors Among Middle and High School Students—United States, 2019," *MMWR*, 68, December 6, 2019, <https://www.cdc.gov/mmwr/volumes/68/ss/pdfs/ss6812a1-H.pdf>. State Data from YRBS, YTS and other state-specific surveys. 33 states + DC include: AL, AZ, CA, CT, DE, DC, FL, GA, IL, IN, KS, KY, LA, MD, MA, MI, MN, MS, MT, NE, NV, NH, NJ, NM, NY, OH, PA, RI, SC, TN, TX, VT, WI, WY.

<sup>3</sup> CDC, "Tobacco Product Use and Associated Factors Among Middle and High School Students—United States, 2019," *MMWR*, 68, December 6, 2019, <https://www.cdc.gov/mmwr/volumes/68/ss/pdfs/ss6812a1-H.pdf>.

<sup>4</sup> CDC, "Youth Risk Behavior Surveillance—United States, 2019," <https://yrbs-explorer.services.cdc.gov/#/tables?questionCode=H37&topicCode=C02&year=2019>.

<sup>5</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>6</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>7</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>8</sup> CDC, "Exposure to Secondhand Smoke Among Nonsmokers—United States, 1988-2014," *MMWR* 67(48): 1342-1346, <https://www.cdc.gov/mmwr/volumes/67/wr/pdfs/mm6748a3-H.pdf>.

<sup>9</sup> CDC, "Smoking Prevalence and Cessation Before and During Pregnancy: Data from the Birth Certificate, 2014," National Vital Statistics Reports, 65(1), February 10, 2016, [http://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65\\_01.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr65/nvsr65_01.pdf).

<sup>10</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>11</sup> **On abnormal blood pressure in infants and children**, see, e.g., Morley, R, et al., "Maternal Smoking and Blood Pressure in 7.5 to 8 Year Old Offspring," *Archives of Disease in Childhood* 72(2):120-24, February 1995; Blake, KV, et al., "Maternal Cigarette Smoking During Pregnancy, Low Birth Weight and Subsequent Blood Pressure in Early Childhood," *Early Human Development* 57:137-147, 2000. **On cleft palates and lips**, see Nagourney, E, "Consequences: Linking Cleft Palates and Smoking Moms," *New York Times*, April 12, 2000 [citing recent study in *Plastic and Reconstructive Surgery*, the Journal of the American Society of Plastic Surgeons]. **On childhood leukemia**, see, e.g., Stjernfeldt, M, et al., "Maternal Smoking and Irradiation During Pregnancy as Risk Factors for Child Leukemia," *Cancer Detection and Prevention* 16(2):129-35, 1992. **On birth defects**, see, e.g., Kallen, K, "Maternal Smoking During Pregnancy and Limb Reduction Malformations in Sweden," *AJPH* 87(1):29-32, January 1997; Czeizel, AE, et al., "Smoking During Pregnancy and Congenital Limb Deficiency," *BMJ* 308(6942):1473-76, 1994; Drews, CD, et al., "The Relationship Between Idiopathic Mental Retardation and Maternal Smoking During Pregnancy," *Pediatrics* 97(4):547-53, April 1997. **On colic**, see Reijneveld, SA, et al., "Infantile Colic: Maternal Smoking As Potential Risk Factor," *Archives of Disease in Childhood* 83:302-303, October 2000. **On wheezing and respiratory problems**, see, e.g., Hu, FB, et al., "Prevalence of Asthma and Wheezing in Public Schoolchildren: Association with Maternal Smoking During Pregnancy," *Annals of Allergy, Asthma, and Immunology* 79(1):80-84, July 1997; Tager, IB, et al., "Maternal Smoking During Pregnancy: Effects on Lung Function During the First 18 Months of Life," *American Journal of Respiratory and Critical Care Medicine* 52(3):977-83, September 1995; Lux, AL, et al., "Wheeze Associated with Prenatal Tobacco Smoke Exposure: A Prospective, Longitudinal Study," *Archives of Disease in Childhood* 83:307-12, October 2000. **On eye problems**, see, e.g., Hakim, RB & Tielsch, JM, "Maternal Cigarette Smoking During Pregnancy: A Risk Factor for Childhood Stabismus," *Archives of Ophthalmology* 110(10):1459-62, October 1992. **On impaired intellectual development**, see, e.g., Frydman, M, "The Smoking Addiction of Pregnant Women and the Consequences on the Offspring's Intellectual Development," *Journal of Environmental Pathology, Toxicology and Oncology* 15(2-4):169-72, 1996; Olds, DL, et al., "Intellectual Impairment in Children of Women Who Smoke During Pregnancy," *Pediatrics* 93(2):221-27, 1994 [correction published in 93(6, Pt 1):973, June 1994]. **On developmental and behavioral problems, including criminality**, see, e.g., Milberger, S, et al., "Further Evidence of an Association Between Maternal Smoking During Pregnancy and Attention Deficit Hyperactivity Disorder: Findings from a High-Risk Sample of Siblings," *Journal of Clinical Child Psychology* 27(3):352-58, October 1998; Orlebeke, JF, et al., "Child Behavior Problems Increased By Maternal Smoking During Pregnancy," *Archives of Environmental Health* 54(1):15-19, 1999; Fergusson, DM & Horwood, LJ, "Prospective Childhood Predictors of Deviant Peer Affiliations in Adolescence," *Journal of Child Psychology and Psychiatry* 40(4):581-92, May 1999; Orlebeke, JF, et al., "Increase in Child Behavior Problems Resulting From Maternal Smoking During Pregnancy," *Archives of Environmental Health* 52(4):317-21, 1997.

<sup>12</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>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/>.

<sup>14</sup> See, e.g., Li, JS, et al., "Meta-Analysis on the Association Between Environmental Tobacco Smoke (ETS) Exposure and the Prevalence of Lower Respiratory Tract Infection in Early Childhood," *Pediatric Pulmonology* 27(1):5-13, January 1999; DiFranza, JR & Lew, RA, "Morbidity & Mortality in Children Associated with the Use of Tobacco Products By Other People," *Pediatrics* 97(4):560-68, April 1997; Adair-Bischoff, CE & Sauve, RS, "Environmental Tobacco Smoke and Middle Ear Disease in Preschool-Age Children," *Archives of Pediatric and Adolescent Medicine* 52(2):127-33, February 1999; American Academy of Pediatrics Committee on Environmental Health, "Environmental Tobacco Smoke: A Hazard to Children," *Pediatrics* 99(4):639-42, April 1997; Mannino, DM, et al., "Environmental Tobacco Smoke Exposure and Health Effects in Children," *Tobacco Control* 5(1):13-18, Spring 1996; Anderson HR & Cook, DG, "Passive Smoking and Sudden Infant Death Syndrome: Review of the Epidemiological Evidence," *Thorax* 52(11):1003-09, November 1997; Hall, Jr., JR, *The U.S. Smoking-Material Fire Problem Through 1995*, National Fire Protection Association, September 1997.

<sup>15</sup> California Environmental Protection Agency, *Proposed Identification of Environmental Tobacco Smoke as a Toxic Air Contaminant: Executive Summary*, June 24, 2005, <http://www.arb.ca.gov/regact/ets2006/ets2006.htm>. CDC, *Secondhand Smoke (SHS) Facts*, accessed January 2, 2014, [http://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/secondhand\\_smoke/general\\_facts/index.htm](http://www.cdc.gov/tobacco/data_statistics/fact_sheets/secondhand_smoke/general_facts/index.htm). United States Environmental Protection Agency, *Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders*, 1992.

<sup>16</sup> Mowry, JB, et al., "2013 Annual Report of the American Association of Poison Control Centers' National Poison Data System (NPDS): 31<sup>st</sup> Annual Report," *Clinical Toxicology*, 52:1032-1283, 2014.

<sup>17</sup> See, e.g., Tonetti, MS, "Cigarette Smoking and Periodontal Disease: Etiology and Management of Disease," *Annals of Periodontology*, 3(1): 88-101, July 1998; Burgan, SW, "The Role of Tobacco Use in Periodontal Diseases: A Literature Review," *General Dentistry* 45(5):449-60, September-October 1997; Krall, EA, "Smoking, Smoking Cessation, and Tooth Loss," *Journal of Dental Research* 76(10):1653-59, October 1997.

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<sup>20</sup> Arday, DR, et al., "Cigarette smoking and self-reported health problems among US high school seniors, 1982-1989," *American Journal of Health Promotion* 10(2):111-116, 1995.

<sup>21</sup> HHS, *Preventing Tobacco Use Among Young People: A Report of the Surgeon General*, 1994.

<sup>22</sup> For hearing loss, see, e.g., Noorhassim, I & Rampal, KG, "Multiplicative Effect of Smoking and Age on Hearing Impairment," *American Journal of Otolaryngology* 19(4):240-43, July-August 1998; Cruickshanks, KJ, et al., "Cigarette Smoking and Hearing Loss: The Epidemiology

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<sup>23</sup> Parrott, AC, "Does Cigarette Smoking Cause Stress?," *American Psychologist* 54(10):817-20, October 1999.

<sup>24</sup> Arday, DR, et al., "Cigarette smoking and self-reported health problems among US high school seniors, 1982-1989," *American Journal of Health Promotion* 10(2):111-116, 1995.

<sup>25</sup> Fiser, A, "Smell Perception in Smokers," *Medicinski Pregled* 43(1-2):48-49, 1990 [in Serbo-Croatian]; Moritz, RP & Winkler, U, "Effect of Smoking on Sense of Smell and Taste," *Zeitschrift Fur Die Gesamte Hygiene Und Ihre Grenzgebiet* 33(12):660-61, December 1987 [in German].