



Focus

Youth Smoking Isn't Kid Stuff

Tobacco is the greatest cause of death in the United States, causing illnesses that each year claim more than 440,000 lives, cost more than \$150 billion in direct and indirect expenses, and account for the loss of 5 million years of potential life each year. For every person who dies of a disease attributable to smoking, there are 20 more people suffering from at least one serious illness related to smoking. This suffering, death, and expense could be avoided if Americans did not use tobacco. Individuals who do not start smoking will never face the risks that come with lighting up. Helping Americans avoid tobacco addiction, helping smokers break the habit, and protecting nonsmokers from the effects of secondhand smoke rank among the nation's greatest opportunities for preventing disease and death.

Because the majority of smokers take up the habit before their 18th birthday, the adolescent years are crucial in the effort to curb smoking. Eighty-two percent of today's adult smokers lit their first cigarette before age 18, and 35 percent were smoking daily by that age. Despite antismoking efforts going back to the first Surgeon General's report on the dangers of tobacco use in 1964, smoking remains disturbingly common among American youth. Each and every day, more than 4,000 kids aged 12 to 17 take their first puff. Twenty-eight percent of students in grades 9 through 12 currently use tobacco, and more than 13 percent of middle school students are current tobacco users. If current rates persist, diseases related to smoking will kill 6.4 million of today's young people.

Helping America's children and adolescents reach young adulthood tobacco free could greatly reduce the

numbers who will eventually develop any of a host of fatal diseases. Tobacco contains the highly addictive compound nicotine, and smokers generally find breaking their habit extremely difficult. The tens of millions of ex-smokers in this country, however, testify by their example that it can be done.

Health Effects

The grave, long-term effects of smoking include heart disease, chronic lung disease, and cancers of the lung, esophagus, larynx, pharynx, bladder, and mouth. Cigarettes also cause cervical, kidney, and pancreatic cancer. Pregnant women who smoke have a higher risk of pregnancy complications, and their babies have higher risks of low birth weight and sudden infant death syndrome.

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Major Health Promotion Efforts Target Youth Smoking

U.S. Department of Health and Human Services Secretary Tommy G. Thompson's *Steps to a Healthier US* initiative and the President's *Healthier US* initiative encourage all Americans—and especially young people—to make the lifestyle choices that lead to better health. Along with eating a nutritious diet and being physically active every day, avoiding tobacco tops the list of these health-smart choices.

Lowering the number of adolescents who smoke—and therefore the disease, disability, and death caused by tobacco use—is also a major thrust of *Healthy People 2010*. *Healthy People 2010* aims to have 79 percent of adolescents tobacco free by the year 2010.



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The major tobacco-related diseases take decades to develop, but smoking also harms young people's health in the short run; it reduces the rate of lung growth and lowers lung function. Teens who smoke are three times as likely to have shortness of breath and twice as likely to have phlegm as their nonsmoking peers. Young smokers have respiratory illnesses more often than nonsmokers and may also show early signs of heart disease and stroke. Their athletic performance and endurance suffer, even if they have athletic training.

Smoking in young people is associated with a constellation of other undesirable activities. Young smokers, for example, are more likely to be involved in substance abuse and other risky behaviors than nonsmokers. They face risks of abusing alcohol, marijuana, and cocaine that are 3, 8, and 22 times greater, respectively, than those faced by their nonsmoking peers. Some youngsters try to avoid harm from cigarettes by using cigars or smokeless tobacco, but these products also are addictive and pose serious health risks such as oral cancers; possible short-term effects include oral sores and bleeding.

Smoking Starts in Adolescence

An individual who reaches 18 without having started smoking has a very small chance of ever doing so. But the earlier males and females start, the stronger their addiction to nicotine is likely to be. Convincing an adolescent to pass up tobacco is, therefore, the key to a smoke-free life. However, antismoking messages aimed at youth must contend with tobacco company marketing campaigns costing more than \$11 billion a year that associate lighting up with glamour, "coolness," sex appeal, thinness, and good looks. Although tobacco advertising is not permitted on radio or TV, almost 90 percent of students still see tobacco ads in newspapers and magazines. Fewer than half of those students, however, have in the past year participated in a class discussion about the reasons people smoke. About 21 percent of students, including 10 percent of the nonsmokers, own at least one garment, piece of sports gear, or other item decorated with a tobacco-related logo; many of these logo items were given away by tobacco companies. And although

tobacco products may not legally be sold to minors, laws are often not uniformly enforced, and many youngsters have little difficulty obtaining cigarettes, cigars, and smokeless tobacco. More than 60 percent of the young people who attempt to buy cigarettes in stores succeed despite being under age.

Research shows that not all youngsters are equally able to resist the lure of smoking. Young people with

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Youth Smoking in the United States

- 36 percent of middle school students and 64 percent of high school students have smoked cigarettes at least once
- 28 percent of high school students (33 percent of males; 24 percent of females) currently use some form of tobacco
- 23 percent of high school students (25 percent of males; 21 percent of females) are cigarette smokers, as are 10 percent of middle school students
- 12 percent of high school students (17 percent of males; 6 percent of females) smoke cigars
- 6 percent of students in grades 9 to 12 use smokeless tobacco (11 percent of males; 1 percent of females), as do 4 percent of middle school students (6 percent of males; 2 percent of females)
- 18 percent of high school students have smoked an entire cigarette before they reached age 13
- 10 percent of high school students smoked cigarettes on 20 of the previous 30 days
- Non-Hispanic white students are most likely to smoke; 25 percent are current smokers, compared with 15 percent of African American and 18 percent of Hispanic students
- 55 percent of current middle school smokers want to quit and 60 percent have tried to quit in the past 12 months
- 61 percent of high school smokers want to quit and 60 percent have tried to quit in the past 12 months



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a set of traits and behaviors that psychologists classify as a “novelty-seeking personality”—including a penchant toward risk taking, sensation seeking, impulsivity, and a high degree of excitement—are particularly susceptible to the tobacco companies’ blandishments. Adolescents with hyperactivity or high levels of aggressive behavior also tend to become smokers more often than those without these traits.

A number of factors combine to encourage adolescents to smoke. More often than their nonsmoking peers, young tobacco users have friends, siblings, or parents who smoke. They tend to come from lower socioeconomic backgrounds than nonsmokers and do less well in school. They tend to view smoking as normal and to ascribe to it such desirable consequences as aiding weight loss and enhancing attractiveness and “coolness.” Young smokers often have low self-image or self-esteem, and many lack the confidence and skills to refuse offers of tobacco. Teen smokers, furthermore, are more likely than other teens to abuse drugs and alcohol and to engage in risky sex and other potentially harmful behaviors.

There Is No Safe Substitute for Cigarettes!

People trying to avoid cigarettes sometimes turn to other forms of tobacco in the mistaken belief that they are “safe.” Every form of tobacco, however, poses its own serious health risks. Cigars raise smokers’ chances of getting cancer of the mouth, larynx, esophagus, and lungs. Smokeless tobacco, also known as spit tobacco or chewing tobacco, causes receding gums and mouth sores in the short run and in the long run increases the risk of heart disease and stroke and causes mouth, pharynx, and esophageal cancers. Bidis—hand-rolled cigarettes consisting of tobacco (often flavored) that is rolled in a brown tendu or temburni leaf and tied with string—also raise the risk of heart disease and cause mouth, pharynx, larynx, esophagus, stomach, and liver cancers. So-called “low tar” cigarettes carry risks similar to ordinary cigarettes.

Preventing Smoking and Kicking the Habit

To help children and adolescents reject smoking, parents, teachers, coaches, and other adults need strategies based on the youngsters’ motivations and level of understanding. Immediate concerns often have much greater impact than long-term, future consequences on children and adolescents; their mindset is, “That will never happen to me.” The fact that smoking cigarettes will lower an athlete’s performance, make a person smell bad, or eat up pocket money often proves more influential than warnings about health problems the child might experience 30 or 40 years from now. Knowing that tobacco has killed a relative or family friend often is far more powerful than the theoretical possibility of future illness.

Parents, the most influential adults in a child’s life, should start the conversation about the dangers of tobacco use in the earliest grades and keep it going through high school, offering information and ideas suited to the child’s age. Parents should emphasize and encourage their child’s power to choose a healthy lifestyle and help him or her develop methods of resisting offers of tobacco and peer pressure to use tobacco. Parents should help the child debunk the false image of smoking’s glamour spread by advertising, movies, TV, magazines, and popular music and should push for antismoking programs at schools, especially at the most vulnerable ages. Research shows that such programs do work to reduce smoking among middle school students. Parents should insist that all school gatherings and athletic matches be tobacco free and include anti-tobacco messages. Parents who use tobacco should make every effort to stop; if they cannot, they should avoid smoking in their child’s presence. They should never provide their child with tobacco or leave it where their child can find it.

If, however, a young person does begin to use tobacco, a number of available resources, publications, telephone hotlines, and Web sites can help in the difficult task of quitting. The would-be quitter will have to contend with withdrawal symptoms that can include irritability, nervousness, dizziness, headaches,

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sore throat, dry mouth, and feelings of depression that can last a week or two. Cravings for tobacco may last much longer. Psychological preparation, careful planning for dealing with problems and stresses, and social support all contribute to success at quitting. Smoking cessation aids such as nicotine-replacement patches can be very helpful to smokers strongly committed to quitting. The teen smoker's doctor should evaluate whether using them is appropriate.

Spotlight

Many young people try smoking because of its supposed "coolness" and glamour—an impression fostered by billions of dollars of tobacco company advertising. To counter this false and dangerous idea, the Centers for Disease Control and Prevention's (CDC's) Sports Initiatives tie freedom from tobacco to the real glamour of major sports stars. Baseball slugger Sammy Sosa, martial arts great Jackie Chan, Olympic Gold Medal skier Picabo Street, Olympic Gold Medal gymnast Dominique Dawes, mountain biking World Cup winner Alison Dunlap, skateboarding great Tony Hawk, world-record pole vaulter Stacy Dragila, and the entire champion U.S. Women's Soccer Team have lent their names, images, and support to CDC's campaign.

"Sports and tobacco don't mix." "The only addiction tolerated by stars of the Women's United Soccer Association is the game." These are only two of the inspiring antismoking messages on free posters available by download or mail order from CDC. Capitalizing on the immense popularity of soccer, CDC has partnered with the World Health Organization (WHO), the National Cancer Institute, the International Olympic Committee, the Fédération Internationale de Football Association (FIFA), and other organizations to launch the SmokeFree Soccer program, which distributes antismoking posters featuring American, Brazilian, Chinese, and Canadian stars. Together with WHO, CDC is working to ensure that major international competitions such as the World Cup, the Olympics, and the Paralympics are smoke-free events that actively promote healthy living and freedom from tobacco.

In addition, the Sports Initiative brings the smoke-free message home to youth sports leagues and school sports teams across the United States. The *Tobacco-Free Sports Playbook*, available free of charge for download or in hard copy, offers coaches, school administrators, and health officials strategies to encourage healthy lifestyles through youth athletics. The *Smoke-Free Soccer Coach's Manual*, available for free download, provides creative drills and lessons that coaches can use to teach their team members about the dangers of tobacco. "Soccer...Kickin' Butts," a documentary featuring several American sports stars, emphasizes the advantages of a tobacco-free, soccer-playing lifestyle. Information on downloading and ordering Sports Initiative materials is available at www.cdc.gov/tobacco/sports_initiatives_splash.htm.

Resources

Tobacco Information and Prevention Source (TIPS), maintained by the Centers for Disease Control and Prevention, presents a wide range of antismoking resources, including statistics, information on health effects, methods of smoking cessation, posters and booklets, links to other Web sites, and more at www.cdc.gov/tobacco/.

The President's *HealthierUS* initiative and Secretary Tommy G. Thompson's *Steps to a HealthierUS* initiative provide resources for making healthy lifestyle choices, including avoiding tobacco, at www.healthierus.gov and www.healthierus.gov/steps, respectively.

Tips4Youth, with materials on smoking prevention and cessation for young people, is at www.cdc.gov/tobacco/tips4youth.htm.

Smoke Screeners, a program to teach students to see through the glamour of smoking in the mass media, is at www.cdc.gov/tobacco/smokescreen.htm.

I Quit! is a colorful and hip smoking cessation guide designed for youth available for free download at www.cdc.gov/tobacco/quit/IQuit.pdf.

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Information on the Great American Smokeout®, a smoking cessation program sponsored by the American Cancer Society since 1977, is available at www.cancer.org/docroot/ped/ped_10_4.asp?sitearea=who.

Keep Kids From Smoking, at www.KeepKidsFromSmoking.com/index.asp?src=overture, offers resources to help parents discuss tobacco with their children, including age-specific advice, “Ask the Expert” feature, and a free parents’ guide.

Teen Advice Online, at www.teenadviceonline.org/archive, provides an interactive discussion site where teens ask and answer questions and give advice on a variety of questions, including whether to start smoking and how to stop.

Tobacco Free Kids, at <http://tobaccofreekids.org>, offers a wide range of information and resources to use in advocating on the issue of youth smoking.

Foundation for a Smokefree America, at www.anti-smoking.org/quitting.htm, was started by tobacco heir and former smoker Patrick Reynolds. The foundation provides a variety of antismoking resources, including a kid-friendly antismoking Web site at www.notobacco.org.

“Why Chicks Flick,” an article from WebMD about why girls smoke, with advice to parents on how to help them not begin, is available at http://my.webmd.com/content/article/14/1674_51445.

Quit4Life, sponsored by Health Canada, is at www.hc-sc.gc.ca/hecs-sesc/tobacco/youth/quit/quit.html. Aimed at teens and young adults, it provides advice on quitting, including specific advice for males and females that takes into account the slightly different effect of nicotine on each gender.

Kids Against Tobacco Smoke, a kid-friendly site at www.roycastle.org/kats/intro.htm, offers a bulletin board and online games with sound that teach about the dangers of smoking.

B-Free From Tobacco, at www.be-free.org, offers free downloadable songs, articles and Web pages created by kids, and more.

Girl Power! is a health site aimed at girls; it provides information, links, and resources for girls about healthy living, including the facts about tobacco (www.girlpower.gov/girlarea/bodyfx/tobacco.htm).

You Can Quit Smoking, at www.surgeongeneral.gov/tobacco/conspack.html, provides a variety of smoking cessation materials, including a guide to quitting, a 5-day countdown book to help prepare for quitting, and a pocket card to provide encouragement. All are available for free download or order.

Activities

The entertainment industry has the ability to create and reinforce messages about tobacco use. The Centers for Disease Control and Prevention’s (CDC’s) Office on Smoking & Health is one of many organizations working to discourage messages in entertainment promoting tobacco. Several celebrities, including cover model/entrepreneur Christy Turlington, actor Esai Morales (NYPD Blue), Ted Danson, and Sean Penn, join CDC in a frank discussion of artists’ rights and social responsibility within the entertainment world. See www.cdc.gov/tobacco/celebs.htm for more information on this topic.

CDC offers educational information and resources for specific audiences such as employers, parents, educators, health professionals, and Spanish speakers on its Tobacco Information and Prevention Source (TIPS) Web page www.cdc.gov/tobacco/edumat.htm.

Materials are also searchable by topic. CDC presents the full text of documents such as *You Can Quit Smoking* and *I Quit! What To Do When You’re Tired of Smoking, Chewing, or Dipping*, along with related Web links in the “How To Quit” section of its Web site www.cdc.gov/tobacco/how2quit.htm.

Smokefree.gov offers science-driven tools, information, and support that have been effective in helping smokers quit. The site presents state and national resources, free materials, and the best quitting advice the National Cancer Institute and its partners have to offer. Its resources include booklets such as *Clearing*

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the Air, for all smokers wishing to quit, and *Clear Horizons*, for smokers over 50.

The Substance Abuse and Mental Health Services Administration (SAMHSA) (<http://ncadi.samhsa.gov/govpubs/phd633>) offers *Tips for Teens: The Truth About Tobacco*, which gives the facts about the consequences of tobacco use and answers frequently asked questions.

The American Cancer Society (ACS) also offers free quitline services. A recent study showed that after 1 month, 21 percent of people who were counseled through the California Smokers' Helpline were not smoking, compared with 10 percent of a group that did not receive counseling. Many states run free quitlines for residents, and smokers can get help finding one in their area by calling ACS at 1-800-ACS-2345.

Teens across the country are saying goodbye to smelly clothes, yellow teeth, and a weekly allowance going down the drain. They are learning to take control of their lives and to make the choice to quit smoking, with the help of the American Lung Association's (ALA's) teen smoking cessation program Not On Tobacco (N-O-T) (www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=39865). After 3 years of development, pilot testing, revision, and evaluation, N-O-T has been rolled out nationwide. A preliminary, 6-month postprogram evaluation showed that more than 22 percent of teens participating in N-O-T stopped smoking, and 64.5 percent greatly reduced the number of cigarettes they smoke. ALA also offers other materials and resources to help all people stop smoking, including a free smoking cessation program in seven modules called Freedom From Smoking®. To find out more about this program, visit www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=39240.

Tobaccofree.org is a Web site sponsored by the Foundation for a Smokefree America and is devoted to empowering smokers to quit and youth to stay smoke free. *Tobaccofree.org* features videos, quitting tips, a message to youth from Patrick Reynolds, grandson of R.J. Reynolds, and much more.

In the Literature

Cigarette Use Among High School Students—United States, 1991–2003. *Journal of the American Osteopathic Association* 104(8) (August 2004): 328–331.

Cigarette use is the leading preventable cause of death in the United States. To examine changes in cigarette use among high school students in the United States during 1991–2003, the Centers for Disease Control and Prevention analyzed data from the national Youth Risk Behavior Survey. This report summarizes the results of that analysis, which indicated that although (1) the prevalence of lifetime cigarette use was stable among high school students during the 1990s and (2) the prevalence of both current and current frequent cigarette use increased into the late 1990s, all three behaviors had declined significantly by 2003.

Inattentiveness, Parental Smoking and Adolescent Smoking Initiation. Barman, S.K., et al. *Addiction* 99(8) (August 2004): 1049–1061.

The goal of this study was to examine how adolescents' inattentive behavior, together with parental smoking patterns, predicted smoking initiation by age 14. The study examined smoking patterns of twin pairs, with one twin of each pair assigned to the study group and one assigned to the control group. Researchers found that inattentiveness and parental smoking additively predicted both experimental and current smoking in adolescence.

Influence of Maternal Tobacco Smoking During Pregnancy on Uterine, Umbilical and Fetal Cerebral Artery Blood Flows. Albuquerque, C.A., et al. *Early Human Development* 80(1) (October 2004): 31–42.

Cigarette smoking during pregnancy is a major cause of adverse perinatal outcome, but effects on critical fetal and maternal circulations remain unclear. This study aimed to determine (1) the influence of habitual maternal cigarette smoking on blood flow velocities in uterine, umbilical, and fetal middle cerebral arteries; and (2) the time course of changes in these flows after smoking a cigarette. The research showed that maternal cigarette smoking is associated with evidence of chronically increased resistances in the uterine,

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umbilical, and fetal middle cerebral arteries, but not with significant correlations between the time of the last cigarette smoked and blood flow velocities.

Morbidity and Mortality Weekly Report—Cigarette Use Among High School Students—United States, 1991–2003. 53(23) June 18, 2004.

The report concludes that if prevention efforts are sustained and current patterns continue, the United States could achieve the 2010 national health objective of reducing current smoking rates among high school students to 16 percent or less.

Reducing Occupation-Based Disparities Related to Tobacco: Roles for Occupational Health and Organized Labor. Barbeau, E.M., et al. *American Journal of Industrial Medicine* 46(2) (August 2004): 170–179.

Tobacco exacts a disproportionate toll on individuals employed in working class occupations because of higher prevalence of smoking and exposure to secondhand smoke. The authors present an overview of recent advances that may help to reduce these disparities, including research findings on a successful social contextual intervention model that integrates smoking cessation and occupational health and safety, and a new national effort to link labor unions and tobacco-control organizations around their shared interest in reducing tobacco's threat to workers' health.

Socio-demographic Correlates of Cigarette Smoking Among High School Students: Results From the British Columbia Youth Survey on Smoking and Health. Johnson J.L., et al. *Canadian Journal of Public Health* 95(4) (2004 July–August): 268–271.

The object of this study was to describe the association between selected socio-demographic factors (age, gender, ethnicity, and region) and the prevalence of smoking among adolescents in two regions of British Columbia and to report recent findings related to the prevalence of tobacco use in British Columbia. A cross-sectional school-based survey was conducted using a random sample of 3,280 students from 13 schools in two regions of British Columbia. Ethnic group membership was strongly associated with smoking status, which changed very little after controlling for other socio-demographic factors.

Meetings

Second International Congress on Women, Heart Disease, and Stroke. Orlando, FL. Visit <http://americanheart.org/presenter.jhtml?identifier=3022283>. February 16–19, 2005.

16th Annual National Youth-At-Risk Conference. Savannah, GA. Visit <http://ceps.georgiasouthern.edu/conted/yarcallforproposal2005.html>. March 6–9, 2005.

Society for Research on Nicotine and Tobacco 11th Annual Meeting and 7th Annual European Conference. Prague, Czech Republic. Visit www.srnt.org/meeting/2005/2005.html. March 20–23, 2005.

National Conference on Tobacco or Health. Chicago, IL. Visit www.tobaccocontrolconference.org/2005/conference. May 4–6, 2005.

World No-Tobacco Day. Visit www.wntd.com/about_index.cfm. May 31, 2005.

World Assembly on Tobacco Counters Health. New Delhi, India. Visit <http://watch-2000.org>. December 5–9, 2005.