

Pennsylvania's 100% Tobacco Free Schools Toolkit *for Student Assistance Programs*



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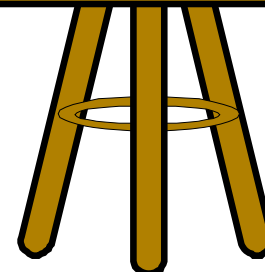
Includes fact sheets; presentations for students, parents and staff; and templates that are available on CD or at www.tobaccofreeallegheny.org

TobaccoFreeAllegheny

This presentation is part of the Tobacco Free Schools Toolkit. The printed booklet that accompanies the presentation is available from Tobacco Free Allegheny.

TobaccoFreeAllegheny

Basic Tobacco: 101



What is Nicotine?

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- Nicotine is the primary component in tobacco that acts on the brain.
- Nicotine is one of more than 4,000 chemicals found in tobacco products and in smokeless tobacco products.
- Nicotine is a colorless liquid that turns brown when burned.
- Nicotine is the most frequently used addictive drug.

Nicotine Absorption

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- Nicotine enters the body through the skin lining the mouth and nose or by inhalation in the lungs.
 - Cigarette smoking can cause nicotine to reach the brain within 10 seconds of inhalation.
 - Cigar, pipe and smokeless tobacco are absorbed at a slower rate.

Effects of Nicotine

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- Nicotine increases blood pressure, respiration and heart rate.
- Nicotine also suppresses insulin output, causing smokers to be in a constant state of slight low sugar.
- Nicotine indirectly causes a release of dopamine in the limbic system that controls pleasure and motivation.
- Nicotine can also exert a sedative effect, depending on the level of the smoker's nervous system arousal and amount of nicotine taken.

Who Smokes?

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- According to the 1999 National Household Survey on Drug Abuse:
 - 57 million Americans were current smokers.
 - 7.6 million used smokeless tobacco.
 - Each day in the US, more than 2,000 people under the age of 18 begin smoking.

Is Nicotine Addictive?

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- Most smokers are addicted to nicotine.
- Smokers compulsively seek and use nicotine in spite of negative health consequences and withdrawal symptoms.

Impact of Nicotine Addiction

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- Tobacco kills more than 430,000 US citizens each year.
- Tobacco use is the leading cause of preventable death in the US.
- \$80 billion of US health-care costs per year is attributable to smoking—\$53 billion in indirect costs.

Is Nicotine Addictive?

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- More than 90% of those smokers who try to quit without seeking treatment fail.
- Repeated exposure to nicotine results in tolerance.
- Nicotine is metabolized quickly. As tolerance is built, cigarettes at the end of the day have less effect than those first in the morning.
- Cessation of nicotine use can be followed by withdrawal symptoms.

Nicotine Withdrawal

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- These symptoms may begin within a few hours of the last cigarette, peak within the first few days and subside within a few weeks. For some people, symptoms may last for months or longer. Symptoms include:
 - Irritability
 - Craving
 - Cognitive and attention deficits
 - Sleep disturbances
 - Increased appetite

Nicotine Craving

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- Craving is a withdrawal syndrome.
- High levels of nicotine craving may last for six months or longer.
- Craving has been described as a major obstacle to successful abstinence.
- Nicotine Replacement Therapy (NRT) may alleviate some symptoms of withdrawal.

Medical Consequences of Nicotine Use

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- Cigarette smoking has been linked to about 90% of all lung cancer cases.
- Smoking also causes lung disease such as chronic bronchitis and emphysema, and exacerbates asthma symptoms.
- Smoking is also associated with cancers of the mouth, pharynx, larynx, esophagus, stomach, pancreas, cervix, kidney, ureter and bladder.
- Smoking increases the risk of heart disease, stroke, heart attack, vascular disease and aneurysm.

Gender Differences

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- Research indicates that men and women differ in their smoking behaviors and nicotine sensitivity.
- Women tend to smoke fewer cigarettes per day, use cigarettes with lower nicotine content, and inhale less deeply than men.
- Women are less likely to initiate quitting and may be more likely to relapse.
- Nicotine replacement therapies do not seem to reduce craving as effectively for women.
- Women may have more intense withdrawal syndrome and more weight gain.

Treatment for Nicotine Addiction

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- For individuals motivated to quit, a combination of behavioral and pharmacological treatments can increase the success rate.
- Cessation can have an immediate impact on an individual's health.
- Nicotine gum, transdermal patch, nasal spray, etc. relieve withdrawal symptoms.
- Zyban is a prescription drug FDA approved to relieve withdrawal symptoms without nicotine.

Behavioral Treatments

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- Behavioral methods are employed to:
 - Provide information and awareness
 - Discover high-risk relapse situations
 - Create an aversion to smoking
 - Develop self-monitoring
 - Develop support systems
 - Establish coping skills for short- and long-term use

Behavior Change Model

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- The Stages of Behavioral Change developed by Prochaska and DiClemente has been shown to be an effective tool in assessing an individual's readiness to change and selecting appropriate methods to aid cessation.
 - Pre-contemplation
 - Contemplation
 - Preparation
 - Action
 - Maintenance
 - Relapse

Smoking Trends

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- 1997—36% of teenagers smoked
- 1999—35% of teenagers smoked
- 2001—28.5% of teenagers smoked
- 2003—22% of teenagers smoked
- 2005—23% of teenagers smoked

Teenagers & Tobacco Control

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- Transition to regular smoking typically occurs well before age 18.
- Half of smoking teenagers become lifetime smokers.
- Half of lifetime smokers die prematurely from smoking-related illnesses.
- Protection of teenagers from tobacco industry tricks is thus a natural theme for advocacy.

Health Effects of Tobacco Use

The Brain

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- Smoking in your teens leaves you vulnerable to addiction to nicotine in the future.
- The brains of adolescents who use tobacco may be sculpted around an addiction to nicotine.

Smoking During Pregnancy

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- Increases the flow of carbon monoxide
- Decreases placental flow
- Increases risk of child having:
 - Mental retardation
 - Low birth weight
 - Premature delivery
 - Spontaneous abortion

Smoking During Pregnancy is Responsible for

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- 14% of premature deliveries
- 10% of infant deaths

Exposure to Prenatal Smoking Can Cause

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- Lower IQ
- Poor verbal, reading, math skills
- Increased risk for conduct disorder
- Increased risk for ADHD
- Increased risk for drug dependence

Health Consequences for Smoking Mothers

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- Cancer
- Ectopic pregnancies
- Miscarriages

Secondhand Smoke Health Effects on Children

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- Respiratory illness
- Cough
- Asthma
- SIDS
- Ear infections
- Have tonsils & adenoids removed

Secondhand Smoke Long-term Health Effects

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- Higher risk of lung and other cancers
- Atherosclerosis
- Coronary heart disease

Gender Differences & Tobacco Use

Effect of Smoking: Girls vs. Boys

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- Girls may develop symptoms of nicotine addiction faster than boys—even before they are regular smokers.
- Girls now smoke at the same rate as boys.

Scope of the Problem for Women

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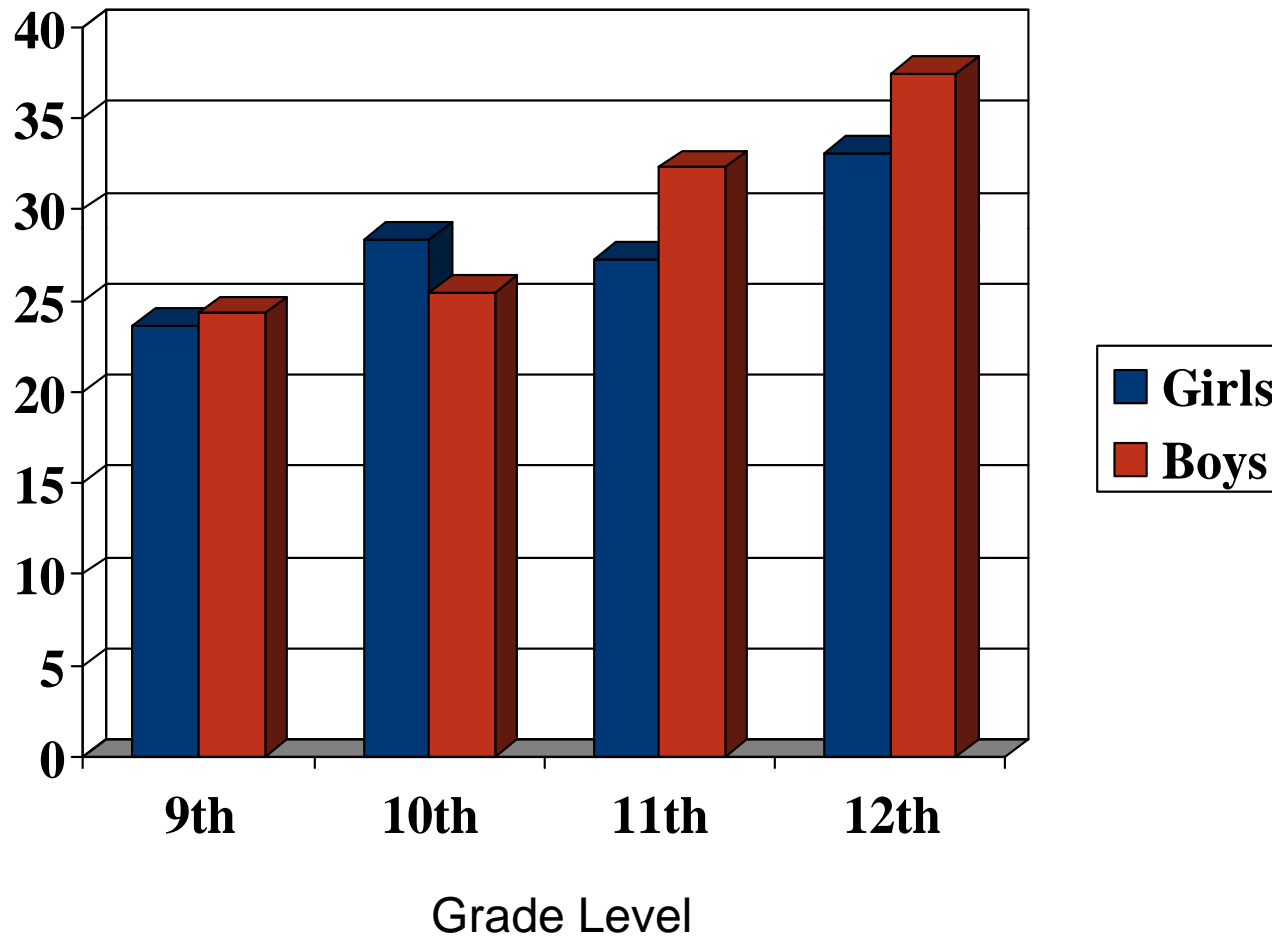
- 4.4 million addicted or abusing alcohol
- 2 million use illegal drugs
- 31 million smoke

25% reduction might save:

- 1.1 million from becoming alcoholics
- 500,00 from drug abuse
- 8 million from smoking

Tobacco Rates

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Differences in Use Among Girls

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	Tobacco Use	Alcohol Use	Binge Drinking	Marijuana Use	Cocaine Use
White	31.2	48.3	30.5	20.6	3.9
Hispanic	26.0	48.8	28.7	22.4	5.9
Black	13.3	30.6	7.5	16.0	0.4

Girls

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- Who use tobacco in elementary school are three times more likely to smoke once they reach middle school
- Who experience early puberty are at increased risk of using substances sooner, more often and in greater quantities
- Who move frequently (six or more times in the past five years) are three times likelier to report current smoking

Girls (cont.)

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- Who diet are more likely to smoke
- Who drink coffee are more likely to smoke
- Who have been physically or sexually abused are twice as likely to smoke, drink and/or use drugs
- Older girls are more likely to believe that smoking helps people relax and that it is easy to get addicted.

Girls (cont.)

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- With favorable attitudes about smoking showed greater increase in tobacco use when transitioning in school
- Who participated in three or more extracurricular activities are half as likely to smoke
- Teenage girls are more likely to smoke when pregnant

Girls (cont.)

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- Increased risk for panic attacks and panic disorder
- Lung problems give false sensation of suffocation, leading to panic attack.



Girls & Emotional Issues

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- Girls who smoke or drink are twice as likely to report feeling depressed.
- Girls who smoke or drink are more than twice as likely to have considered or attempted suicide.
- Girls who smoke, drink or use marijuana are more than twice as likely to have been in a physical fight in the past 30 days.

Cognitive & Psychiatric Disorders: Tobacco

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- Nearly twice as likely to report feeling depressed
- High doses of nicotine have a depressive effect on the central nervous system
- Increased risk for panic attacks and panic disorder
- Lung problems give false sensation of suffocation, leading to panic attack
- Nearly three times more likely to have considered suicide
- Teenage girls more likely to smoke when pregnant



Coexisting Disorders with AOD

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- Mood and anxiety disorders
 - 31% phobic
 - 19% major depression
- Behavior disorders
 - Fighting
- Eating Disorders
 - 35% to 50%
 - 50% with bulimia use tobacco

Sexual & Physical Abuse

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- Strongly related to substance use:
 - 17% high school girls physically abused
 - 12% sexually abused
- Those abused twice as likely to smoke, drink or use drugs
- Those sexually abused more likely to abuse substances earlier, more often and in greater quantities

Health & Tobacco

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- Become addicted at lower levels of use
- Greater impairment of lung functioning
- Interferes with normal menstruation
- Risk of coronary heart disease increased when using oral contraceptives
- Risk for breast cancer increased for those who began smoking in early adolescence
- Greater difficulty quitting

Peer Influence

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- The more friends smoke, drink or use marijuana or other illegal drugs, the more likely to use
- Girls' perception of pressure by other people their age increases with age.

Positive Attitudes About Use Increase Risk

41

- Older girls likelier to believe that smoking helps people relax and that it is easy to get addicted.
- Favorable attitudes about smoking increase tobacco use across school transitions.
- Older girls believe alcohol alleviates boredom, sadness or depression.

Marketing & the Media: Tobacco

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Smoking initiation increased rapidly in 1967—aggressive marketing of women’s brands of cigarettes

- Lucky Strike: “Reach for a Lucky instead of a sweet.”
- Capri: “There’s no slimmer way to smoke.”



Extracurricular Activities

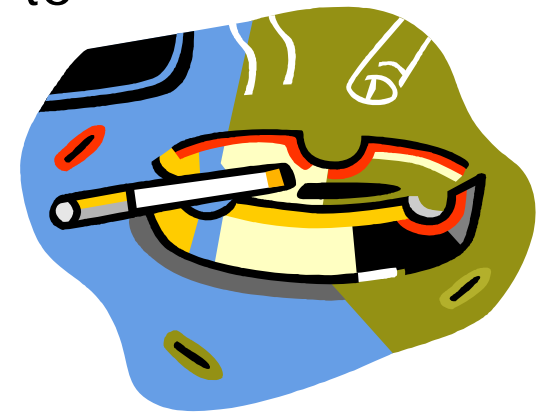
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- Participate in three or more extracurricular activities half as likely to report smoking
- Less likely to drink alcohol (14.9% vs. 19.2%) and use marijuana (4.8% vs. 10%)

Prevention & Intervention Failures

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- Primary care physicians rarely counsel girls about substance use.
- Girls face special hurdles in attempting to quit smoking:
 - History of depression
 - Gaining weight
 - Relapse during and after pregnancy
 - Respond to social support
 - Confrontational approaches less appropriate
 - Lack of childcare



Substance Use Attitudes

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Older girls believe vs. younger girls:

- Smokers/drinkers do well in school.
- Smoking helps people relax, and drinking helps people deal with boredom and depression.
- It is easy to get addicted to smoking.

Substance Use Attitudes (cont.)

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- Transition from:
 - Elementary to middle school greatest increase in belief that smoking and drinking are ways to disobey adults
 - Middle school-aged children believe that drinking is cool.
 - High school students to college believe tobacco is cool, relaxing and drinking helps people cope with boredom and depression.

Special Issues Around Girls Quitting

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- History of depression and current symptoms are associated with failure to quit
- Express concern about gaining weight
- Respond positively to cessation programs that include social support from the family and peers

What Schools Can Do

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- Encourage girls to participate in activities that make them feel connected
- Provide with positive role models
- Train teachers to recognize signs and symptoms of substance abuse and how to respond appropriately

Minority Smoking

African American & Hispanic Teens

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- For teens, tobacco use among African-Americans and Hispanics has increased from 1991 to 1997, after declining during the 1970s and 1980s.
- Cigarette smoking among African-American teens increased 80% over the last six years—three times faster than among white teens.

Targets

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- Smoking was found to be a major cause of death in each minority group, with African-American men bearing the greatest health burden.
- Tobacco advertising and marketing played a major role in increased smoking by specifically targeting minorities. More education and better-targeted smoking cessation programs for minorities could help.

Lung Cancer

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- African-American men bear one of the greatest health burdens of the four ethnic groups, with death rates from lung cancer that are 50% higher than those of white men.

Minority Smoking

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- “No single factor determines patterns of tobacco use among racial/ethnic minority groups; these patterns are the result of complex interactions of multiple factors, such as socioeconomic status, cultural characteristics, acculturation, stress, biological elements, targeted advertising, price of tobacco products, and varying capacities of communities to mount effective tobacco control initiatives.”

Minority Smoking (cont.)

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- In racial/ethnic minority groups, the percentage of persons who have ever smoked and have quit increases with increasing age.

Parents' Roles in Their Children's Smoking Behavior

Secondhand Smoke

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- 37.4% of children (27 million) live in a household where a parent or other adult smokes or chews tobacco.

Parents' Role

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- Studies show that parents' opinions and behavior are the things that most significantly influence their children's substance use.

Parents' Role

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- Parents who abstain from tobacco, illegal drugs, drink responsibly, have high expectations for their children, monitor their whereabouts, know their friends, provide loving support and a forum for communication are less likely to have children who use and abuse tobacco, alcohol and drugs.

Parents' Responsibility

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- Teens are more likely to use substances—including tobacco—if their parents do not show strong, consistent messages of disapproval.

Schools Where Smoking is Allowed or Tolerated

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- Risk of drug use at smoking-tolerated/allowed school
 - 1.59
- Risk of drug use at non-smoking schools
 - .76

Movies and Their Relationship to Smoking

61

- Students who watch R-rated movies frequently are nearly seven times more likely to smoke cigarettes.
 - 34% vs. 5%

Bibliography

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1. CDC (Centers for Disease Control and Prevention)
2. Surgeon General's Reports
3. CASA: The National Center on Addiction and Substance Abuse at Columbia University
 - The Formative Years: Pathways to Substance Abuse Among Girls and Young Women Ages 8-22
 - Family Matters: Substance Abuse and the American Family
 - National Survey of American Attitudes on Substance Abuse XII: Teen and Parents, August 2007

Bibliography (cont.)

4. National Institute on Drug Abuse Research Report Series Nicotine Addiction, Printed July 1998, Reprinted August 2001
NIDA: www.drugabuse.gov
5. Society for Research on Nicotine and Tobacco: www.srnt.org
6. Mind Over Matter Teacher's Guide – Nicotine
<http://www.nida.nih.gov/MOM/TG/momtg-nicotine.html>

Bibliography (cont.)

64

7. Biochemistry and Medical Treatment of Tobacco Addiction–2003
Smoking Consultation Services

<http://www.stopsmokingdoctors.com/pdf/Biochemistry%20and%20Medical%20Treatment%20of%20Tobacco%20Addiction.pdf>

8. How Stuff Works–How Nicotine Works

<http://www.health.howstuffworks.com/nicotine.htm>

Bibliography (cont.)

65

9. Duke University Nicotine Research Center
<http://dukemednews.duke.edu/news/article.php?id=7012>
10. About Alcoholism & Substance Abuse: Nicotine Increases Cravings
<http://alcoholism.about.com/library/weekly/aa000222b.htm>
11. TC Online Presentations
www.tobaccocontrol.com

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This presentation was prepared by the staff at Addiction Medicine Services.