Policy on Tobacco Use

Originating Council
Council on Clinical Affairs

Review Council
Council on Clinical Affairs

Adopted
2000

Revised
2003, 2006, 2010

Purpose
The American Academy of Pediatric Dentistry (**AAPD**), in order to reduce pain, disability, and death caused by nicotine addiction, recommends routine screening for tobacco use, treating tobacco dependence, preventing tobacco use among children and adolescents, and educating the public on the enormous health and societal costs of tobacco.

Methods
This policy revision is based upon a review of current dental, medical, and public health literature related to tobacco use. An electronic search was conducted using the following parameters: Terms: "tobacco", "teen tobacco use", "tobacco use in children", "smoking", "smokeless tobacco", "smokeless tobacco and oral disease", "pregnancy and tobacco", "secondhand smoke", and "caries and smoking"; Field: all fields; Limits: within the last 10 years, humans, English, clinical trials, birth through age 19. Three hundred sixteen articles matched these criteria. Websites for the American Lung Association, American Cancer Society, Centers for Disease Control and Prevention, Environmental Protection Agency, Campaign for Tobacco Free Kids, and US Department of Health and Human Services were reviewed. When data did not appear sufficient or were inconclusive, recommendations were based upon expert and/or consensus opinion by experienced researchers and clinicians.

Background
Tobacco is a risk factor for 6 of the 8 leading causes of deaths in the world and kills up to one-half of its users.[1] In the US, the Surgeon General's report states that smoking is the single greatest avoidable cause of death.[2] This report concludes that even in nonsmokers, secondhand smoke exposure causes disease and death.

The Centers for Disease Control and Prevention (CDC) has conducted a National Youth Tobacco Survey (NYTS) for the years 1999, 2000, 2002, 2004 and 2006 as part of the Healthy People 2010 objectives on tobacco use.[3] While middle school students showed a decrease in the use of cigarettes, cigars, and bidis (unfiltered cigarettes from India)[4], they did not show a change in the use of smokeless tobacco, pipes, or kreteks (unfiltered cigarettes from India)[4] between 2004 and 2006.[4,5] Unfortunately during this same period, no significant change was seen in the tobacco use of high school students.[4,5] Tobacco use among high school students is 20.0% or 3.5 million, while 19.8% of adults smoke.[5,6] Smokeless tobacco use is seen in 13.4% of male high school students and 2.3% of females.[5,6] Each day approximately 3,600 youth between 12-17 years of age try smoking with 1,100 a day becoming regular daily users.[6,7]

Signficant health consequences for tobacco use include 440,000 deaths per year from smoking and an additional 50,000 deaths per year from secondhand smoke.[5,6] Other catastrophic sequelae are cardiovascular disease; reproductive effects; pulmonary disease; cancers of the cervix, kidney, pancreas, stomach, lung, larynx, bladder and esophagus; leukemia; cataracts; abdominal aortic aneurysm; bronchitis; and other lung diseases including pneumonia.[7,8]

Secondhand exposure to tobacco smoke imposes significant risks as well. Cardiovascular disease and lung cancer are increased by 25-30% in nonsmokers who inhale secondhand smoke.[9] Infants and children who are exposed to smoke are at risk for sudden infant death syndrome (SIDS), acute respiratory infections, middle ear infections, bronchitis, pneumonia, asthma[10], allergies[11,12], and infections during infancy.[13] Caries in the primary dentition also is related to secondhand smoke exposure.[14-16] Enamel hypoplasia in both the primary and permanent dentition also is seen in children exposed to cigarette smoke.[17]

A new term, "thirdhand" smoke, has been proposed to describe the particulate residual toxins that are deposited in layers all over the home after a cigarette has been extinguished.[18] These volatile compounds are deposited and "off gas" into the air over months.[19,20] Since children inhabit these low-lying contaminated areas and because the dust ingestion rate in infants is more than twice that of an adult, they are even more susceptible to thirdhand smoke. Studies have shown that these children have associated cognitive defects in addition to the other associated risks of secondhand smoke exposure.[21]

Tobacco use can result in oral disease. Oral cancer,[9] periodontitis,[22-25] compromised wound healing, a reduction in the ability to smell and taste, smoker's palate and melanosis, coated tongue, staining of teeth and restorations, implant failure, and leukoplakia[26,27] are all seen in tobacco users. Smokeless tobacco is a risk factor for periodontal conditions[28-30] and oral cancer.[31]

Initiation of tobacco use begins before age 19 for 90% of adult smokers.[32] In fact, most studies show that people who do not use tobacco as a teen never use it.[32] Aggressive marketing of tobacco products by manufacturers,[33,34] smoking by parents,[35] peer influence, a functional belief in the benefits and normalcy of tobacco,[36] availability and price of tobacco products, low socioeconomic status, low academic achievement, lower self image, and a lack of behavioral skills to resist tobacco offers all contribute to the initiation of tobacco use during childhood and adolescence.[37] Teens who use tobacco are more likely to use alcohol and other drugs and engage in high risk sexual behaviors.[38]

The monetary costs of this addiction and resultant morbidity and mortality is staggering. Annually, cigarette smoking costs the US $193 billion, based on lost productivity (more than $97 billion) and health care expenditures (more than $96 billion).[7] Health care cost from the exposure to secondhand smoke is about $10 billion annually.[7] Contrast this with tobacco industry expenditures on advertising and political influence of $13.11 billion in 2005.[7]

Current trends indicate that tobacco use will cause more than 8 million deaths a year by 2030.[39] It is incumbent on the healthcare community to reduce the burden of tobacco-related morbidity and mortality by supporting preventive measures, educating the public about the risks of tobacco, and screening for tobacco use and nicotine dependence.

Policy statement

The AAPD opposes the use of all forms of tobacco including cigarettes, pipes, cigars, bidis, kreteks, and smokeless tobacco and alternative nicotine delivery systems (ANDS), such as tobacco lozenges, nicotine water, nicotine lollipops, or "heated tobacco" cigarette substitutes. The AAPD supports national, state, and local legislation that eliminates tobacco advertising and promotions that appeal to or influence children, adolescents, or special groups. The AAPD supports prevention efforts through merchant education and enforcement of state and local laws prohibiting tobacco sales to minors. As environmental tobacco smoke (ETS) is a "known human carcinogen" and there is no evidence to date of a "safe" exposure level to ETS (secondhand or passive smoke),[40] the AAPD also supports the enactment and enforcement of state and local clean indoor air and/or smoke-free policies or ordinances prohibiting smoking in public places.

Furthermore, the AAPD encourages its members to:

1. promote and establish policies that ensure dental offices, clinics, and/or health care facilities, including property grounds, are tobacco free;
2. support tobacco-free school laws and policies as advocated by the American Dental Association;[41,42]
3. serve as role models by not using tobacco and urging staff members who use tobacco to stop;
4. routinely examine patients for oral signs of and changes associated with tobacco use;
5. determine and document tobacco use by patients and smoking status of their parents, guardians, and caregivers;
6. educate patients, parents, and guardians on the serious health consequences of tobacco use and exposure to ETS in the home;
7. provide both prevention and cessation services using evidence-based interventions identified as "best practice" for treating tobacco use and nicotine addiction;
8. work to ensure all third-party payors include "best practice" tobacco cessation counseling and pharmacotherapeutic treatments as benefits in health packages;
9. work with school boards to increase tobacco-free environments for all school facilities, property, vehicles, and school events;
10. work on the national level and within their state and community to organize and support anti-tobacco campaigns and to prevent the initiation of tobacco use among children and adolescents, eliminate cigarette sales from vending machines, and increase excise tax on tobacco products to reduce demand;
11. work with legislators, community leaders, and health care organizations to ban tobacco advertising, promotion, and sponsorships;
12. organize and support efforts to pass national, state, and local legislation prohibiting smoking in businesses such as day-care centers where children routinely visit and other establishments where adolescents frequently are employed;
13. establish and support education/training activities and prevention/cessation services throughout the community;
14. recognize the US Public Health Service Clinical Practice Guideline "Treating Tobacco Use and Dependence"[43] as a valuable resource.

References

1. World Health Organization. Tobacco key facts. Available at: "http://www.who.int/topics/tobacco/facts/en/index.html". Accessed June 29, 2010.
2. US Dept of Health and Human Services. The health consequences of smoking: A report of the Surgeon General. US Dept of Health and Human Services, CDC, National Center of Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004. Available at: "http://www.surgeongeneral.gov/library/smokingconsequences/". Accessed June 29, 2010.
3. US Dept of Health and Human Services. Healthy people 2010: Tobacco use and healthy people 2010 objectives-Tobacco priority area. Washington, DC. Available at: "http://www.healthypeople.gov/document/HTML/Volume2/27Tobacco.htm". Accessed June 29, 2010.

4. CDC. 2006 National Youth Tobaccao Survey and Key Prevalence Indicators. Available at: "http://www.cdc.gov/tobacco/data_statistics/fact_sheets/tobacco_industry/bidis_kreteks/". Accessed November 8, 2009.
5. CDC. Smoking and tobacco use: Surveys: 2006 National Youth Tobacco Survey and key prevalence indicators. Available at: "http://www.cdc.gov/tobacco/data_statistics/surveys/nyts/pdfs/indicators.pdf". Accessed June 29, 2010.
6. CDC. Smoking and tobacco use: Youth and tobacco use: Current estimates. Available at: "http://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm#estimates". Accessed June 29, 2010.
7. Campaign for Tobacco-Free Kids. Toll of tobacco in the United States of America. Tobacco use in the USA. Campaign for Tobacco-Free Kids, December 8, 2008. Available at: "http://www.tobaccofreekids.org/research/factsheets". Accessed August 6, 2009.
8. CDC. Smoking and tobacco use. Health effects of cigarette smoking. Updated December 1, 2009. Available at: "http://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/index.htm". Accessed June 29, 2010.
9. US Dept. of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon Gerneral. US Dept of Health and Human Services, CDC, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Atlanta, Ga. 2006. Available at: "http://www.surgeongeneral.gov/library/secondhandsmoke/report/chapter1.pdf". Accessed June 29, 2010.
10. Dietert RR, Zelikoff JT. Early-life environment, developmental immunotoxicology, and the risk of pediatric allergic disease including asthma. Birth Defects Res B Dev Reprod Toxicol 2008;83(6):547-60.
11. Goodwin RD, Cowles RA. Household smoking and childhood asthma in the United States: A state-level analysis. J Asthma 2008;45(7):607-10.
12. Lannerö E, Wickman M, van Hage M, Bergström A, Pershagen G, Nordvall L. Exposure to environmental tobacco smoke and sensitisation in children. Thorax 2008;63(2):172-6.
13. Ladomenou F, Kafatos A, Galanakis E. Environmental tobacco smoke exposure as a risk factor for infections in infancy. Acta Paediatr 2009;98(7):1137-41.
14. Leroy R, Hoppenbrouwers K, Jara A, Declerck D. Parental smoking behavior and caries experience in preschool children. Community Dent Oral Epidemiol 2008;36(3):249-57.
15. Hanioka T, Nakamura E, Ojima M, Tanaka K, Aoyama H. Dental caries in 3-year-old children and smoking status of parents. Paediatr Perinat Epidemiol 2008;22(6):546-50.
16. Aligne CA, Moss ME, Auinger P, Weitzman M. Association of pediatric dental caries with passive smoking. JAMA 2003;289(10):1258-64.
17. Ford D, Seow WK, Kazoullis S, Holcombe T, Newman B. A controlled study of risk factors for enamel hypoplasia in the permanent dentition. Pediatr Dent 2009;31(5):382-8.
18. Winickoff JP, Friebely J, Tanski SE, et al. Beliefs about the health effects of "thirdhand" smoke and home smoking bans. Pediatrics 2009;123(1):e74-9.
19. Matt GE, Quintana PJ, Hovell MF, et al. Households contaminated by environmental tobacco smoke: Sources of infant exposures. Tob Control 2004;13(1):29-37.
20. Singer BC, Hodgson AT, Guevarra KS, Hawley EL, Nazaroff WW. Gas-phase organics in environmental tobacco smoke. 1. Effects of smoking rate, ventilation, and furnishing level on emission factors. Environ Sci Technol 2002;36(5):846-53.
21. Yolton K, Dietrich K, Auinger P, Lanphear BP, Hornung R. Exposure to environmental tobacco smoke and cognitive abilities among US children and adolescents. Environ Health Perspect 2005;113(1):98-103.
22. Johnson GK, Hill M. Cigarette smoking and the periodontal patient. J Periodontol 2004;75(2):196-209.
23. Bergström J, Eliasson S, Dock J. A 10-year prospective study of tobacco smoking and periodontal health. J Periodontol 2000;71(8):1338-47.
24. Albandar JM, Streckfus CF, Adesanya MR, Winn DM. Cigar, pipe, and cigarette smoking as risk factors for periodontal disease and tooth loss. J Periodontol 2000;71(2):1874-81.
25. Johnson GK, Slach NA. Impact of tobacco use on periodontal status. J Dent Educ 2001;65(4):313-21.
26. Vellappally S, Fiala Z, Smejkalová J, Jacob V, Somanathan R. Smoking related systemic and oral diseases. Acta Medica 2007;50(3):161-6.
27. Reibel J. Tobacco and oral diseases. Update on the evidence, with recommendations. Med Princ Pract 2003;12(Suppl 1):22-32.
28. Montén U, Wennström JL, Ramberg P. Periodontal conditions in male adolescents using smokeless tobacco (moist snuff). J Clin Periodontol 2006;33(12):863-8.
29. Kallischnigg G, Weitkunat R, Lee PN. Systematic review of the relation between smokeless tobacco and non-neoplastic oral diseases in Europe and the United States. BMC Oral Health 2008;8:13-33.
30. Bergström J, Keilani H, Lundholm C, Rådestad U. Smokeless tobacco (snuff) use and periodontal bone loss. J Clin Periodontol 2006;33(8):549-54.
31. Rodu B, Jansson C. Smokeless tobacco and oral cancer: A review of the risks and determinants. Crit Rev Oral Biol Med 2004;15(5):252-63.

32. American Cancer Society. Child and Teen Tobacco Use. Available at: "http://www.cancer.org/docroot/PED/content/PED_10_2X_Child_and_Teen_Tobacco_Use.asp?sitearea=PED". Accessed June 29, 2010.
33. CDC. Cigarette brand preference among middle and high school students who are established smokers – United States, 2004 and 2006. MMWR Morb Mortal Wkly Rep 2009;58(5):112-5.
34. Lavoto C, Linn G, Stead LF, Best A. Impact of tobacco advertising and promotion on increasing adolescent smoking behaviours. Cochrane Database Syst Rev 2003; (4):CD003439.
35. Gilman SE, Rende R, Boergers J, et al. Parental smoking and adolescent smoking initiation: an intergenerational perspective on tobacco control. Pediatrics 2009;123(2): e274-81.
36. Song AV, Morrell HE, Cornell JL, et al. Perceptions of smoking-related risks and benefits as predictors of adolescent smoking initiation. Am J Public Health 2009; 99(3):487-92.
37. US Dept of Health and Human Services. Reducing Tobacco Use: A Report of the Surgeon General. US Dept of Health and Human Services, CDC, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, Atlanta, Ga: 2000. Available at: "http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4916a1.htm". Accessed June 29, 2010.
38. CDC. Best Practices for Comprehensive Tobacco Programs-2007. US Dept. of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; Atlanta, Ga: October 2007. Available at: "http://www.cdc.gov/tobacco/tobacco_control_programs/stateandcommunity/best_practices/pdfs/2007/BestPractices_Complete.pdf". Accessed June 29, 2010. Errata notices available at: "http://www.cdc.gov/tobacco/tobacco_control_programs/stateandcommunity/best_practices/errata/index.htm". Accessed June 29, 2010.
39. World Health Organization. WHO report on the global tobacco epidemic, 2009. Available at: "http://whqlibdoc.who.int/publications/2009/9789241563918_eng_full.pdf\". Accessed July 4, 2010.
40. US Dept of Health and Human Services. The health consequences of involuntary exposure to tobacco smoke: A report of the Surgeon General. US Dept of Health and Human Services, 2007. Available at: "http://www.surgeongeneral.gov/library/secondhandsmoke/factsheets/factsheet7.html". Accessed November 8, 2009.
41. Crozier S. Resolution directs ADA to support tobacco-free school policies. American Dental Association News, November 10, 2009. Available at: "http://www.ada/org/news/528.aspx". Accessed July 4, 2010.
42. American Dental Association. Tobacco Control. Available at: "http://www.ada.org/2788.aspx". Accessed July 4, 2010.
43. US Dept of Health and Human Services. Treating Tobacco Use and Dependence: Clinical Practice Guidelines. 2008 Update. Available at: "http://www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?book=hsahcpr&part=A28163". Accessed June 29, 2010.