

Tobacco-Free Environment: An Imperative for the Health of Children and Adolescents

Committee on Substance Abuse

BACKGROUND

Smoking is the leading cause of preventable death in the United States. It is responsible for approximately 20% of deaths annually,¹ and environmental tobacco smoke (ETS) is estimated to cause 3000 lung cancer deaths per year in nonsmoking Americans.² It is also estimated that the elimination of smoking would reduce infant deaths by 10% and decrease the incidence of low birth weight infants by 25%.³ In 1992 the Environmental Protection Agency declared ETS to be a Class A Carcinogen.² The dangers to children of both active and passive tobacco exposure, including smokeless forms, are so well established that pediatricians should make the elimination of this threat a major issue as they pursue the goal of a tobacco-free generation by the year 2000.⁴⁻⁸

Each day 3000 children in the United States begin to use tobacco.^{5,9,10} Of these children approximately 40% begin that experimentation in grade school. Initiation of regular daily smoking is highest among children 12 to 14 years of age, and half of all smokers begin to smoke before age 18. Two thirds of high school students report having tried cigarettes, and one of eight high school students smokes on a regular basis.¹¹ Although overall tobacco use in the United States has decreased in recent years, approximately 30% of women aged 18 to 44 are regular smokers, and this percentage of smoking women of childbearing age is decreasing at a slower rate than that of the general population. Smoking rates are twice as high for those who do not complete high school as compared with those who graduate from college. Since 1966, smoking among college graduates has decreased by one half to 18%, whereas smoking in those with less than a high school education has remained steady at 35%.¹¹ The proportion of smokers in the United States is estimated to be approximately 29%.⁵

PERINATAL HAZARDS

Smoking during pregnancy has been associated with certain childhood cancers⁹; it doubles the likelihood of bearing an infant with intrauterine growth retardation¹²; and it increases the risk of spontaneous abortion, premature rupture of membranes, and delivery of a stillborn infant.^{12,13} Both intrauterine ex-

posure to tobacco smoke and passive inhalation by the infant seem to be associated with increased risk of sudden infant death syndrome.^{14,15} Smoking during pregnancy impedes the growth of the fetus and may impair the learning ability of the infant. These effects may be modified if smoking is discontinued early in pregnancy.¹⁶

CHILDHOOD COMPLICATIONS OF EXPOSURE TO ETS

Children exposed to cigarette smoke (especially from birth to 2 years of age) have an increased risk of a variety of medical disorders. They exhibit an increased incidence of upper respiratory tract infection, middle ear effusion,¹⁷ allergic complications, and impairment of pulmonary function²—problems that exhibit a dose-response relationship.^{14,17-21} Furthermore, such children run an increased risk of lower respiratory tract infection such as bronchitis and pneumonia.^{2,22} Children with asthma show exquisite sensitivity to ETS, which is causally associated with additional episodes and increased severity of wheezing. Exposure to the smoke of as few as 10 cigarettes per day may increase the likelihood of developing asthma in a child who has never before shown symptoms.^{2,23} Furthermore, adverse effects unrelated to the respiratory tract, including the increased incidence of cataracts²⁴ and long-term behavior problems,²⁵ have been directly related to exposure to ETS during childhood.

DANGERS OF TOBACCO USE BY CHILDREN

Cigarette smoking by children and adolescents causes the same variety of respiratory problems experienced by adults, including chronic airway irritation, cough, and lower respiratory tract infection. Pathologic changes in the lungs begin within the first few years of cigarette smoking.²⁶

Lung cancer remains the leading cause of cancer-related deaths in the United States. Women who smoke are 12 times more likely than nonsmokers to develop lung cancer. Smokers have increased risk of cardiovascular disease, and women who smoke and use oral contraception run a greatly increased risk of heart attack and stroke.

The use of smokeless tobacco has demonstrated a recent upswing in popularity and is used by approximately 11% of high school students nationwide.¹¹ This form is perceived by children as less dangerous than cigarettes despite its direct association with an increased risk of oral cancer.²⁷ The nicotine absorbed

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The recommendations in this policy statement do not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

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from these products exerts systemic effects and is at least as addicting as that absorbed via the lungs.

ADDICTION

Nicotine found in tobacco is an extremely addictive substance,^{28,29} accounting perhaps for the 60% failure rate reported by those who attempt to quit smoking. Moreover, tobacco may serve as a "gateway" drug, as users exhibit a 15-fold increase in their likelihood of progression to the use of marijuana and other illegal drugs.³⁰⁻³²

ROLE OF ADVERTISING

Role modeling and advertising by the powerful tobacco industry are responsible in part for the high level of use of tobacco products by youth. Although sale of tobacco products to children is illegal in 48 states and the District of Columbia,³³ the industry realizes some 221 million dollars annually from such sales. The advertising of cigarettes as glamorous and having sex appeal and the placement of such advertisements in youth-oriented publications are discouragingly successful. The use of cartoon characters has been shown to appeal to children and increase their awareness of and interest in tobacco products despite the invariable claim by the conglomerates that they are only attempting to influence brand selection by those who already smoke.^{32,34,35} The sponsorship of major sporting events by cigarette companies provides further publicity and legitimacy to their products and allows the industry to reach large numbers of children. Furthermore, as the tobacco market becomes more and more international, the American industry has successfully turned its attention to foreign countries.

Advertisements for smokeless tobacco products frequently portray their use by adult role models such as athletes. In addition, chewing tobacco and snuff are marketed in attractive point-of-purchase displays and are frequently packaged to resemble candy products.³⁶

HEALTHY YOUTH 2000

In 1990 the US Public Health Service published a book of national health objectives structured to provide a framework for identifying health problems and planning ways to improve them. Many of these problems deal directly with tobacco and its effects.

BENEFITS OF A TOBACCO-FREE GENERATION

Elimination of tobacco use would postpone or eliminate some 2.1 million deaths in the last decade of the 20th century.⁸ The dangers of nicotine addiction and its possible risk for progressing to use of illegal drugs by the 3000 children and adolescents who begin smoking each day would be eliminated. There would be significant reductions in respiratory and cardiovascular diseases, lung cancer, and other conditions attributable to tobacco use and smoke exposure, and a reduction in the incidence of intrauterine growth retardation and infant deaths.

CONCLUSIONS

1. Tobacco is a major health hazard to children and adolescents.

2. Maternal use of tobacco has significant adverse effects on pregnancy and fetal outcome.
3. Exposure to ETS has major effects on the health and psychosocial well-being of children.
4. Tobacco use by children is associated with chronic and recurrent medical problems as well as with increased risk for significant morbidity and mortality. Furthermore, tobacco use may be a marker for youth at risk for other behavioral problems.
5. Nicotine is an addicting substance and may serve as a gateway drug for the subsequent use of illicit substances.
6. Tobacco advertising is appealing to young people and may have a powerful effect in influencing them to begin tobacco experimentation.
7. A tobacco-free environment is an imperative for the health of children and adolescents.

RECOMMENDATIONS

1. Inquiry into tobacco use and smoke exposure should be a routine part of both the prenatal visit with parents and every appropriate pediatric health supervision visit.
2. As important role models, physicians should not smoke or use tobacco products, especially in the presence of their patients. They should be firm advocates of nonuse by children and their parents. They should inform smoking parents of the dangers of ETS and the implications and complications of exposing their children to tobacco smoke. Information about available smoking cessation assistance should be offered.
3. Discussion and anticipatory guidance about smoking and tobacco use should begin well before the patient enters junior high school, with particular emphasis on the importance of resisting the influence of advertising and the peer group.
4. Pediatricians should work to promote smoke-free environments in physician offices, hospitals, schools, and other public places.
5. Pediatricians should reject advertising messages that undermine the health of children and should place reading materials that do not contain tobacco advertising in their waiting rooms.
6. Pediatricians should support vigorous antismoking programs within schools and be available to provide advice and guidance in this area.
7. Pediatricians should be active in community antismoking campaigns and should support the proposed "Model Sale of Tobacco Products to Minors Control Act" of 1990. This Act proposes establishing 19 years as the minimum legal age for tobacco sales to minors, vigorously enforcing such laws with appropriate penalties for violations, and eliminating cigarette sales from vending machines.
8. All forms of tobacco advertisements should be banned from all media including print and electronic.
9. Tobacco use on school campuses should be outlawed, and schools should prohibit the on-site advertising of tobacco products.
10. Increased excise taxes on the sale of tobacco products should be established and federal subsidies to tobacco farmers should be eliminated.

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