the Journal of CONTEMPORARY DENTAL PRACTICE at www.thejcdp.com
Volume 7 Number 2 May 1, 2006

Smoking Habits of Adolescents and the Role of Dentists

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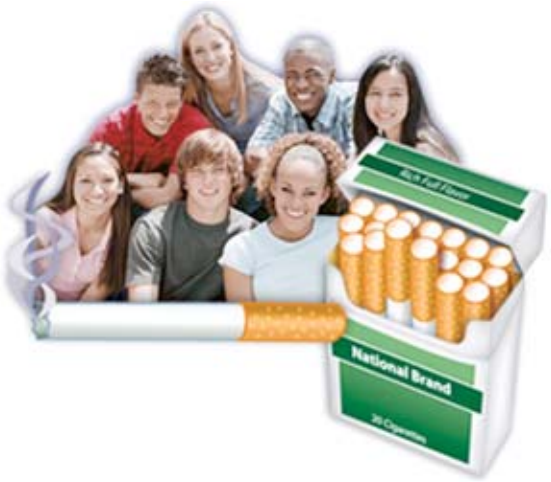

Abstract

Tobacco smoking has a devastating effect on the health and well-being of the public and remains the nation's leading avoidable cause of premature mortality and disability. On an average, each smoker who dies would have lived another 15 years if he/she was a non-smoker. Though adult smoking has decreased markedly, there is an alarming rise in the use of tobacco among adolescents.

One unique aspect of dentistry is some of the adverse health effects of tobacco uses are clinically apparent in the oral cavity at a relatively early stage of use. More than one-half of the adult population and nearly three-quarters of the student population see a dentist each year, and yet 80% of dentists do not routinely ask about tobacco use and advise tobacco users to quit.

Nicotine is a highly addictive substance, and the urge to continue smoking is powerful. As doctors our motto in advising patients should be, "If you smoke, quit. If you don't, then don't try it." The second part of the message is especially important for adolescents, since most adult smokers started their habit as adolescents.

The authors have highlighted the harmful effects of smoking and the role dentists have to impart as responsible citizens in educating their patients, especially in the younger generation to help them lead a healthier and more meaningful tomorrow.

Keywords: Adolescents, smoking habit, role of dentists, parents

Citation: Garg RK, Tandon S. Smoking Habits of Adolescents and the Role of Dentists. J Contemp Dent Pract 2006 May;(7)2:120-129.

Introduction

When the leading causes of death in the developed and developing countries were tabulated, heart disease and cancer topped the list. When an attempt was made to identify the underlying causes of death, a different picture emerged, and it became clear the three major culprits involved were: cigarette smoking, inappropriate dietary habits, and a sedentary lifestyle. The basis of most of our habits, dietary choices, and lifestyle is established relatively early in our lives and can affect our health and well-being for the rest of our life.

The teenage years are typically a period encompassing a search for identity, independence, and peer acceptance. Enmeshed within this search are a myriad of personal choices to be made including decisions concerning the use of drugs, alcohol, and tobacco.

Adolescence represents the final transition socially from childhood to adulthood. The development of high ability abstract thinking often makes an adolescent appear to be a rebel, a complainer, and an accuser. ARISTOTLE, more than 2000 years ago, pointed out "adolescents are passionate, irascible, and bound to be carried away by their impulses."[1] When adolescence is over, if everything proceeds as it should, the emerging young adult will be able to establish and maintain loving and sexual relationships with a partner, be independent of their parents, be capable of working with peers, and be self-directed. Some adolescents cannot master them and some of the frequently cited instances of adolescent failure to socialize properly are giving way to delinquency, attempted or successful suicide, alcohol, smoking, drug use and abuse, running away from home, teenage prostitution, and dropping out of school.

Peers are very important social agents; it can be argued as relationships and dependencies upon parents begin to decline, the importance of peers escalates. In situations where adolescents find it difficult to share thoughts, secrets, and fantasies with their parents, the peer becomes the close friend and confidant. Despite the obvious value of peers, there are peer relationships that are not so fortunate. To avoid rejection or ridicule from peers an adolescent may try drugs, smoking, participate in a criminal act, or defy authority.

Every day an estimated 3,000 teenagers begin smoking. According to current data, in the lifetime of those 3,000 teens, 60 will die in road traffic accidents, 30 will be murdered, and 750 will die from smoking related diseases.[2] It is estimated 3.1 million adolescents smoke in the entire world. It is most common in high school students. Nearly 85% of all smokers say they started smoking before age 18. This trend in teenage smoking is alarming, since tobacco use, as a teen is strongly associated with regular tobacco use and addiction as an adult. The likelihood of oral cancer occurring in children and adolescents is rare, but continued tobacco use may lead to oral cancer in adults. Some prevention specialists consider cigarette smoking as a "gateway drug," a substance that leads to the use of other drugs.[3]

Therefore, it is important for practitioners and parents to continually help and guide the teenagers as they progress through this difficult stage. It is important for parents to be ready to adapt to their child's changing personality, to continue to reinforce the need for good habits, and increase the adolescents' knowledge regarding the harmful effects of smoking.

Why Children Smoke?

Given what is known about tobacco, why do kids continue smoking? There is no single answer to this question, but some interesting insights include:

1. Smokers surround many students. About one-third of middle and high school students who do not smoke live with someone who does.

2. Students who do smoke are twice as likely to live with other smokers. More than 90% say one or more close friends also smoke.
3. Current smokers are much more likely to think smokers have more friends than non-smokers.
4. Two-thirds of school-aged smokers are not asked to show proof of age when buying cigarettes or are not refused when they try to purchase cigarettes.
5. Over 80% of students see actors using tobacco on television or in the movies.
6. About one-third of student smokers see advertisements for tobacco products on the Internet.
7. One-third of student smokers say they have bought or received something with a tobacco company name or picture on it within past years.

These statistics reveal young adults are surrounded by friends and family members who smoke.[3,4] They are strongly influenced by these role models and believe smoking is "cool" and a way to make friends. They also find it easy to buy cigarettes. When they choose not to smoke, they are still regularly exposed to smokers and to the ill effects of second hand smoke.[5]

Effects of Smoking

Smoking causes or contributes to the diseases and conditions shown in Table 1.[2,6]

How Smoking Harms Children?

Especially vulnerable are children, even before they are born. Pregnant women who smoke are more likely to have babies with low birth weights. Smoking by one or both parents also is suspected as one cause of Sudden Infant Death Syndrome (SIDS).[3,5]

Children with one or both smoking parents have higher incidences of asthma, bronchitis, emphysema, pneumonia, and influenza. They also have more colds and respiratory infections than children who live in smokeless homes.

Babies born to mothers who smoke:[2,4,5]

1. Are twice as likely to die from cot death. There seems to be a direct co-relationship between cot death and parents' smoking.

2. Are ill far more frequently than non-smokers' babies.
3. Get painful diseases such as inflammation of the middle ear and asthmatic bronchitis more frequently in early childhood.
4. Are twice as likely to be born prematurely and with a low birth weight (below 2.5 kg).
5. Have a birth weight on average 200g less than those born to non-smokers.
6. Have organs smaller on average than babies born to non-smokers. This is particularly evident in the case of lungs of a newborn baby, which do not function as well as the lungs of a baby whose mother does not smoke.
7. Become addicted to nicotine if their mothers smoke before they are born.
8. Are more likely to become smokers.
9. Have a higher risk of developing allergies.

Children who are exposed to passive smoking everyday due to one or both of the parents smoking; have twice the risk of getting asthma and asthmatic bronchitis.[3,4] More than 9,000 individuals die each year from oral and oropharyngeal cancer.[3,4] The risk of having oral and oropharyngeal cancer is much greater among tobacco users. Over 90% of people with oral and oropharyngeal cancer are tobacco users. Tobacco users also have a higher incidence of gingival and periodontal diseases, coated tongue, cavities, wearing of teeth, and gum recession.[3,4]

Nutrition and Smoking

Aside from the dangers of establishing a lifetime addiction and increasing the risk to life-threatening diseases, use of tobacco extracts a significant toll on the nutrient status of the individual. Studies have shown smokers have a lower intake of numerous essential nutrients including Vitamins C and A, beta-

Table 1. Disease and conditions caused or influenced by smoking.

1. Lung cancer
2. Laryngeal cancer
3. Esophageal cancer
4. Oral and oropharyngeal cancer
5. Cervical cancer
6. Bladder cancer
7. Pancreas cancer
8. Kidney cancer
9. Heart diseases
10. Emphysema
11. Chronic bronchitis
12. Stroke
13. Slows illness recovery
14. Decreased appetite and loss of weight
15. Periodontal diseases are increased both in prevalence and severity in smokers. Smoking cessation may halt disease progression and improve the outcome of periodontal treatment.
16. Dental implant failure rates are significantly higher in smokers than in non-smokers.
17. Smoking often results in discoloration of teeth and dental restorations.
18. Halitosis, diminished taste and smell acuity are common side effects of smoking.
19. Nicotine in cigarettes increases the amount of cholesterol in the blood, which may cause the arteries to clog up with the fatty tissue called Atheroma.
20. High blood pressure or hypertension, which is related to heart attacks and stroke.
21. Smoking causes an acid taste in the mouth and contributes to the development of oral ulcers.
22. Couples who smoke are more likely to have fertility problems than non-smoking couples.
23. Generally smokers have 25% more sick days a year than non-smokers.
24. Smoking also affects looks; smokers have thicker and rougher skin.
25. Heavy smoking alters the "tumor suppressor gene; p53" and p53 mutations have been reported to be absent in non-smokers and non-alcoholics.
26. Slows wound healing

carotene, folic acid, and dietary fibers compared with non-smokers. More over, several of these nutrients have been associated with a reduced risk of developing lung cancer, with cigarette smokers being at high risk for this disease. There is also evidence smokers require twice as much Vitamin C as non-smokers since smokers metabolize the vitamin more rapidly. Smoking also influences both hunger and body weight, tending to postpone the feeling of hunger and to reduce body weight.[8]

Secondhand Smoke/Passive Smoking

Also at risk are those who live or work in an environment where others are smoking and where they are inhaling the smoke secondhand. It is estimated more than 50,000 people die each year from heart disease alone caused by breathing secondhand smoke.

1. Almost half of the world's children are involuntarily exposed to tobacco smoke. Their rights to grow up in an Environmental Tobacco Smoke (ETS) free environment must be safeguarded.
2. Smoking by the parents or other adults may have adverse effects during gestation and after birth.
3. Diseases induced by ETS in children include low birth weight, lower respiratory tract infection, middle ear diseases, chronic respiratory symptoms, asthma, SIDS, and some childhood cancers.
4. Parental smoking is associated with learning difficulties, behavioral problems, and language problems.

Role of the Dentist

Adolescence represents a relatively long period of life in our society. The dentist who treats adolescents must be well versed in understanding the different characteristics of adolescence as they relate to age. Obviously the conversation a dentist would have with a 13-year-old would be substantially different than with an 18-year-old. The dentist needs to be acutely aware of these

differences and be able to be versatile in his or her communication style with this age group.[7]

Health professionals who work with pregnant women should pay attention to issues of ETS, deliver interventions to assist pregnant women to stop smoking, prevent them from relapsing, and induce their partners to stop smoking.

The guidelines encourage health professionals to routinely follow four simple steps to help people stop smoking. The four steps-coined the four A's are: **Ask**, **Advise**, **Assist**, and **Arrange**.

- Health professionals should systematically **ASK** about and document the smoking status of every patient.
- Health professionals should then **ADVISE** smokers about quitting at nearly every encounter by providing brief cessation messages.
- People with some interest in quitting should be **ASSISTED** to do so by providing information on support options and nicotine replacement therapy.
- Health professionals should **ARRANGE** follow up for smokers ready to quit.

How the Dentist Can Help a Child Quit

- Children, especially adolescents, need to be educated about the harmful effects of tobacco.
- Bring up the subject of tobacco use. This can be done when you see or hear things about tobacco on television, on advertisement billboards, t-shirts, caps, or in magazines.
- Explain buying tobacco is a waste of money, and the tobacco companies target advertisements towards young people in order to hook another generation of tobacco users.
- Tell them tobacco kills about a half million people each year. More people die from tobacco-related illnesses than from traffic accidents, alcohol, AIDS, suicides, homicides, fires, and illegal drugs combined.
- Let children know tobacco use will stain their teeth and dental restorations, causes their clothes and hair to smell, causes tooth decay, tooth loss, gum diseases, bad breath, and will dull their sense of taste.
- Young people may be more receptive to the fact their boyfriend or girlfriend may think they have bad breath or stained teeth than the number of deaths caused by tobacco use.
- Tobacco use does not improve athletic ability, increase popularity, or make one appear grown-up.

How the Dentist Can Help a Parent Quit

1. Tell them how important you think quitting is for their family's health, and advise them to:
   - Set a quite date and to tell those around them they are quitting and need help.
   - Remove cigarettes from home, cars, work place, etc.
   - Look at earlier attempts to quit and recall what is most likely to work for them.
   - Do something they like instead of choosing cigarettes.
   - Think of their withdrawal symptoms as recovery symptoms (these may last from a few days to a few weeks)
   - Recognize having other smokers nearby makes it harder to quit.
2. Recommend the use of nicotine replacement, if required. Help them follow the provider's instructions.
3. If a smoker does not want to quit, ask questions every visit to help them to identify their barriers to quitting and their reasons for quitting. Offer your support if they choose to quit at a later date.
4. Positively reinforce the quitter's decision to go smoke-free
   - Congratulate and encourage
   - Talk about the benefits gained
   - Other possible solutions to any problems identified
5. Talk about specific problems, such as weight gain, mood changes, withdrawal symptoms, and how to arrange support to remain smoke-free. If they relapse, use this as a

learning experience. Seek a new quit date and suggest alternative behavior.

6. Give them the **4 Ds**:
   - **D**elay acting on the urge to smoke
   - **D**eep Breath
   - **D**rink Water
   - **D**o something else

The Bottom Line

The rend in youth smoking is on the rise, and large numbers of middle and high-school students continue to smoke. These same students are at a higher risk for becoming habitual smokers as they grow older. At the present rate, it is estimated 5.0 million of today's young adults will die prematurely because of their smoking habits.

Since it is always the dental practitioner specialized in treating children who encounters the tell-tale signs of smoking in children, counseling should be initiated by them. There is no simple way to stop teens from smoking, but there are several places to start.[9]

- Parents should be made to recognize if they smoke, they are increasing the likelihood their children will also smoke.
- Schools need to expand their anti-smoking programs. Since most children understand smoking is bad for health, educators should focus on undermining the positive images of smoking and the peer pressure making children want to try cigarettes.
- Schools also need to provide support for current smokers to quit their habits.
- The media and the advertising agencies should re-evaluate the positive images of smoking targeting adolescents.
- Laws forbidding the sale of tobacco to minors needs to be more strictly enforced.
- "Smoking Counseling" should be a fundamental part of dental curriculum and any practice prevention program.
- Educate the public about the importance of smoke-free air for children.
- Advice to parents is particularly critical when youngsters are already suffering from ETS-induced diseases.
- Awareness should be raised and behavioral changes motivated to reduce the harmful effects of prenatal and postnatal exposure to ETS.
- The hidden risk to children, infants, a growing fetus, or preconception should be detected, and interventions should be taken to reduce risks from ETS.

Conclusion

A successful adolescent dental practitioner is one who is aware of the trends, popular fads, and the celebrities of interest to teens and establishing a rapport with the adolescent by reaching the vulnerable teenager at a non-authoritarian level. If the dentist proceeds with caution he/she can lead the adolescent during this conflicting stage of life away from inflicting harm to themselves and guide them to be a better and healthier citizen. The entire dental team should be aware of the relationship between smoking and dental problems and should convey the message "non-smoking is the norm." Because dentists and dental hygienists can be effective in treating tobacco use and dependence, the identification, documentation, and treatment of every tobacco user they see needs to become a routine practice in every dental practice. It also calls for implementation of guidelines on treating tobacco users.

To help achieve individual behavior changes, the community must change the way tobacco products are marketed, sold, and used. National and local dental societies and associations should become involved in the tobacco control programs which should include activities such as educating the public on the health hazards of environmental tobacco use, promoting smoke-free restaurants and theaters, and prohibiting smoking in public places.

Dental schools or colleges have to incorporate into their curriculum not only the harmful effects of smoking but also practical training in clinical intervention, thus, graduating the next generation of dentists with competency in assessing and treating tobacco use.

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