

Tobacco Cessation as a Promoter of Health and Wellness

Meridel I. Gatterman, MA, DC, MEd

"Cigarette smoking is the single most preventable cause of disease and death in the United States." This sobering quote should make anyone interested in health promotion and wellness an advocate of smoking cessation. Smoking results in more deaths each year in the U.S. than AIDS, alcohol, cocaine, heroin, homicide, suicide, motor vehicle crashes, and fires combined.¹ Smoking is a major risk factor for heart disease, stroke, lung cancer and chronic lung diseases - all leading causes of death. Daily cigarette smoking increases the risk of fatal stroke by three-and-a-half times.² It is also considered a risk factor for cancer of the larynx, oral cavity, esophagus, pancreas and bladder.³ Approximately 40 percent of people who smoke 20 or more cigarettes a day will die before the age of 65.⁴ Of particular importance to the chiropractor is that smoking also promotes onset of chronic spine disease, as the nicotine and other chemicals damage the small vessels carrying blood to the disc and spine.⁵

Smoking during pregnancy can result in miscarriages, premature delivery and sudden infant death syndrome (SIDS). Fetuses of smoking mothers are at increased risk for low birth weight. Fire-related injuries and environmental damage caused by fires are other damaging effects of smoking. Secondhand smoke increases the risk of heart disease and significant lung conditions, especially asthma and bronchitis in children. There is no safe tobacco alternative to cigarettes. Chewing tobacco or smoking a cigar or pipe also increases the risk of cancer and cardiovascular diseases.¹

Factors That Make Nicotine Use Addictive

Both physical and psychological factors contribute to the difficulty in cessation of tobacco use. Inhaling tobacco smoke provides rapid gratification and strong behavioral reinforcement. Satisfaction comes from the release of catecholamine. Psychologically, tobacco use produces a strong relaxation effect, as well as physical stimulation.

In addition to the psychoactive effects of euphoria, and stimulation or relaxation, it is thought that nicotine can improve the performance of repetitive tasks, increase attention and learning, and increase problem-solving ability. The deleterious effects of nicotine use do not automatically lead to smoking cessation, and deprivation increases the desire to use the drug. There is rapid reinforcement of the habit, since within seven seconds of inhalation, nicotine affects the central nervous system. Nicotine tolerance adapts the smoker to the effects of nicotine toxicity. Nicotine toxicity can include pallor, nausea and vomiting in early users. Toxic substances found in cigarettes are listed in the table presented below.

Chemicals Inhaled When
Tobacco Is Smoked
Propylene glycol
Toluene
Benzo [A] pyrene
Phenol
Arsenic
Acetone
Lead
Formaldehyde
Benzene
Ammonia
Cadmium
Butane

Source: Government of British Columbia.

Physical dependence produces a withdrawal syndrome, the symptoms of which are usually most severe 48-96 hours after the last cigarette. Symptoms include irritability, restlessness, an inability to concentrate, sleep disturbance, weight gain, constipation or diarrhea, and nicotine craving. A second peak of withdrawal symptoms is experienced about 10 days after quitting. The addictive nature of nicotine creates a high relapse rate after smoking cessation.⁶

Strategies That Promote Smoking Cessation

While many health practitioners are pessimistic about their ability to persuade patients to quit smoking, doctors of chiropractic can promote their patients' ability to quit smoking if this is a consideration in their wellness program. Many chiropractors are hesitant to address a patient's nicotine addiction on the assumption that if the patient were interested in quitting, they would already have done so. Some just need support and encouragement, which can be assessed by determining the patient's stage of behavior change.

Stages of Change

A model based on stages of change for moving toward healthier behavior was presented in a previous column. This model was developed in 1983 by Prochaska and DiClemente, and has been commonly applied to smoking cessation.⁷ Evans, et al.,⁸ reported on a smoking-cessation education program for chiropractic interns that encouraged them to deliver smoking-cessation messages to patients. They reported a 25 percent increase in the number of patients reporting receipt of smoking-cessation information from interns within one month of the delivery of an education campaign aimed at interns and clinic supervisors.

The Stages of Change model identifies five stages of susceptibility to health behavior change:

Stage 1: Precontemplation. In the precontemplation stage, the patient has no intention to change behavior in the foreseeable future. They may, however, be encouraged by family, friends, neighbors and peers to quit smoking. If the patient indicates they are not contemplating smoking cessation in the next six months, they are classified as precontemplators. They may make statements such as, "As far as I'm concerned, I don't want to quit smoking," "I guess I need to quit, but I enjoy it," or "I'm under too much stress to quit." Patients who indicate these attitudes are unlikely to quit smoking for health and wellness reasons, or even consider the deleterious effects their smoking may have on those around them. However, they should be given information suggesting they consider making an attempt to quit.

Stage 2: Contemplation. This is the stage in which patients are aware that smoking is harmful and are seriously thinking of quitting, but they have not made a commitment to take action. Frequently, patients remain stuck in the contemplation stage for long periods, not making a move to make any changes. If they are seriously considering quitting in the next six months, they can be classified as contemplators. They may make such statements as "I've been thinking I should quit smoking" or "I would like to stop smoking but I haven't done anything about it." Since these patients acknowledge they need to quit, providing them with smoking-cessation information and letting them know you are there to help may move them to the next stage. Being able to provide them resources on smoking-cessation counseling or support groups can help as well.

Stage 3: Preparation. Patients in the stage of preparation combine intention with evaluation of the benefits of smoking cessation. They are intending to take action in the near future (next month) and may have unsuccessfully taken action in the past year. A health-management contract can move these patients into a stage of compliance with significant behavioral change. They may express their desire to take action by stating, "I would like to quit smoking but I need some help," or "I am ready to stop smoking. Can you help me?" Clinicians should be prepared to follow through with help and continued support of those patients who are preparing to take action.

Stage 4: Action. In the action stage, the patient has actually stopped smoking. A health-management contract can facilitate commitment and encourage the patient to continue in this important lifestyle change. In this stage, patients have successfully stopped smoking within six months. They may make statements such as, "I am really concentrating on stopping smoking" or "You can talk about quitting but I have actually done it." Helping the patient identify situations in which they may be tempted to smoke again and developing relapse-prevention techniques may help them stay on the wagon.

Stage 5: Maintenance. In the maintenance stage, patients work to prevent relapse. This is often as difficult as the initial action stage. If they are under stress, they may recall the anti-anxiety and relaxing effects that they associate with smoking. Reinforcement and encouragement are important during this stage. The patient may state, "I need encouragement right now to kick the habit," or "I'm looking for help to keep me from having a relapse." Overall, doctors who wish to address chronic spine disease and its prevention, and who call themselves "wellness-oriented" should be fully prepared to offer assistance and promote prevention to patients in their practices. This seems to be a good fit to the holistic concepts originated by the chiropractic profession, so why not be prepared?

Trends in Cigarette Smoking

In 1998, 24 percent of adults were current cigarette smokers, and in 1999, 35 percent of adolescents in grades 9-12 had smoked one or more cigarettes in the past 30 days. Every day, an estimated 3,000 young people start smoking. These trends are disturbing because the vast majority of adult smokers tried their first cigarette before age 18. More than half of adult smokers became daily smokers before this same age.¹ Teenagers are experimenting with tobacco use at early ages - 10.7 for boys and 11.4 years for girls.⁶

Campaigns that warn teenagers of the deleterious effects of tobacco use should be a part of health education in all schools. Smoking-cessation programs that target whole families have been initiated

as part of public health departments. Family tobacco use can be more influential than peer pressure in encouraging smoking experimentation. A study by researchers in Kansas City found that when an adolescent had four "significant others" in their lives who smoked, they were 161 times more likely to pick up the habit!⁹ Recently, females have been the target of tobacco company marketing, with ads implying that cigarette smoking is sexy; associating their brand with the word *luscious*; and finally, packaging their product in the color pink.

Ideally, it is best to encourage people not to start smoking. However, for those who already have the habit, they need to be encouraged to quit in the name of health promotion and wellness.

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