

Strategies to prevent tobacco use among teens

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According to the Center for Disease Control, 21.4 percent of people aged 18 to 24 years smoke tobacco. Today everyone knows smoking is an unhealthy habit, so why do people still smoke? Penn State experts say several factors play a part.

Suzanne Zeman, coordinator of educational services at University Health Services, said people smoke for a variety of reasons. Some grew up in a family of smokers, others thought they were just social smokers but became addicted and still others became hooked after their first few smokes. According to Michael Hecht, distinguished professor of communication arts and sciences and crime, law and justice, tobacco use is higher in rural areas, where users begin at a young age.

“Rural kids are four times as likely to report drinking in middle school and using tobacco by seventh grade,” Hecht said. “Reported smoking and drinking rates by rural children are at 30 to 50 percent. ”

Hecht added that people think rural areas are tight-knit communities where everyone knows everything about each other and it’s too hard for kids to get into trouble. However, a five-minute drive outside rural towns often puts kids in the middle of nowhere, to do as they please unobserved. The issue, he said, is that education against drinking and tobacco use is under-addressed in rural areas. Statistics also show there aren’t many resistance programs that work well among rural kids and teens.

Hecht is a part of a program he helped create, called [Keepin’ it REAL](#) –

which stands for Refuse, Explain, Avoid, Leave and is a drug-resistance skills curriculum that studies the social process in which drugs are offered to middle school students in [rural areas](#) in Ohio and Pennsylvania. Program leaders [take this research](#) to high school students in the same areas and ask them to create videos portraying scenarios that middle-schoolers may find themselves in, and strategies they can use to resist temptation and pressure.

Hecht said that scare tactics used in public service ads on TV do not stop kids from smoking. Showing body bags or talking to them about the risks of cancer won't help, he said, because they don't think those consequences could happen to them. Showing the young students videos of high school teens who look and sound like them and who portray peer-pressured situations they may have actually experienced -- and how they said no -- is more effective, he said.

Prevention is the best way to deal with smoking because it's hard to quit -- nicotine is addictive and adolescents are especially vulnerable to the addictive substance, Zeman said. She explained that according to the National Institute on Drug Abuse, nicotine is readily absorbed into the bloodstream whether tobacco is chewed or smoked. A typical smoker will take 10 puffs on a cigarette over a period of five minutes that the cigarette is lit. Thus, a person who smokes about 1-1/2 packs (30 cigarettes) daily gets 300 "hits" of nicotine each day.

Upon entering the bloodstream, she said, nicotine immediately stimulates the adrenal glands, releasing adrenaline. Epinephrine stimulates the central nervous system and increases blood pressure, respiration, and heart rate. Glucose is released into the blood while nicotine suppresses insulin output from the pancreas, which means that smokers have chronically elevated blood sugar levels. It also increases levels of dopamine, which affects brain pathways that control pleasure and reward. This leads to addiction for many users.

The first few weeks of quitting [tobacco use](#) are usually the most difficult. The body becomes restless. Patience is lost and anxiety levels are high. It's hard to concentrate; headaches and weight gain are possibilities. Symptoms often start within in a few hours and last a few months. Why would anyone want to put him or herself through it? Because the alternatives are worse: emphysema, lung cancer, heart disease, premature death.

Quitting isn't easy, but a smoker's health gets better within 20 minutes of quitting and it only gets better from there, according to the U.S. Department of Health and Human Services. The heart rate and blood pressure drop within 20 minutes. Within 12 hours the carbon monoxide level in blood drops to normal and the oxygen in blood level increases to normal. After 24 hours the risk of a heart attack decreases and lung function improves, and in nine months smoking-related coughing ceases and the risk of getting mouth cancer is cut in half. After 10 years, the risk of bladder cancer is cut in half and in 15 years the risk of getting coronary disease is the same as a nonsmoker.

While Zeman said over-the-counter products such as nicotine gum and patches or even quitting cold turkey might be the solution to help some [smokers](#) quit, others may need more help. Prescription medicine and/or counseling might be the answer for some.

More information: At UHS, Penn State students can find freedom from smoking; visit studentaffairs.psu.edu/health/...domFromSmoking.shtml for details.

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