The Deadly Effects of Tobacco Addiction

Secondhand Smoke: A Real Danger

Cigarette smoke contains thousands of dangerous chemicals that are unhealthy for both smokers and nonsmokers. Secondhand smoke refers to the smoke from the burning end of a cigarette and the smoke exhaled by smokers. More than 126 million Americans are regularly exposed to secondhand smoke at home, at work, and in enclosed public spaces.

The Deadly Effects

- Secondhand smoke can cause heart disease and lung cancer in nonsmoking adults. Breathing secondhand smoke for even a short time increases risk for those diseases.
- Children and infants are especially vulnerable to the poisons in secondhand smoke. Almost 3 million children in the United States under the age of 19 breathe secondhand smoke at home at least four days per week.
- Secondhand smoke is a known cause of sudden infant death syndrome (SIDS), respiratory problems, ear infections, and asthma attacks in infants and children.
- Secondhand smoke in the home can slow the lung growth of exposed children. Older children whose parents smoke get bronchitis and pneumonia more often than children of nonsmokers.
- Wheezing and coughing are also more common in children who breathe secondhand smoke.

Protecting Yourself and Others

The only way to fully protect yourself and loved ones from the dangerous chemicals in secondhand smoke is through 100 percent smoke-free environments. Opening a window; sitting in a separate area; or using ventilation, air conditioning, or a fan cannot eliminate secondhand smoke exposure. If you are a smoker, the best single way to protect your family is to quit smoking.

Overcoming Tobacco Addiction

Quitting Has Immediate Health Benefits

Within 24 hours of quitting, blood pressure goes down and chances of heart attack decrease. Long-term benefits of quitting include lower risk of stroke, lung and other cancers, and coronary heart disease.

Treating Withdrawal from Nicotine

- Nicotine withdrawal symptoms include irritability, craving, cognitive and attention deficits, sleep disturbances, and increased appetite.
- To reduce the symptoms, nicotine replacements—gum, patches, sprays, and inhalers—are used. Another medication works on other areas of the brain to control craving.

More Information

- smokingdrugabuse.gov
- teens.drugabuse.gov
- cdc.gov/tobacco
- smokefree.gov
- 1-800-QUITNOW

Addiction is a developmental disorder that begins in adolescence, and sometimes as early as childhood. Recent advances have provided more insight into how teens put themselves at risk for addiction through risk-taking and thrill-seeking behaviors. These behaviors are likely due to the fact that the part of the brain responsible for judgment, decision making, and control of emotional responses—theprefrontal cortex—is the last area of the brain to mature. But there may be other factors.

Dr. James Belluzzi and colleagues have recently found that a chemical in tobacco smoke, acetaldelyde, may play a role in adding adolescents to smoking. In the study, adolescent laboratory rats increased their intake of nicotine when it was combined with acetaldelyde. Adult rats did not.

All the rats were placed in cages where they could poke their noses through holes and receive other nicotine, saline, acetaldelyde, or a mixture of acetaldelyde and nicotine.

Over five days, with increasing frequency, the adolescent rats showed a preference for the acetaldelyde-nicotine combination. The adult rats did not show any preference.

“Our results show that acetaldelyde, at the same relative concentration found in cigarette smoke, dramatically increases the reinforcing properties of nicotine,” says Dr. Belluzzi. “Furthermore, the effect is age-related, with adolescent animals for more sensitive than adults.”