NO PREP

Tobacco and Vaping

What Every Teen Should Know

Includes: Student reading, case study, differentiated questions, teacher key

Name: Period: Date:

Tobacco and Vaping: What Every Teen Should Know

What Are Tobacco and Vaping Products?

Tobacco has a centuries-old history, originally used in rituals and later commercialized into cigarettes, cigars, and chewing tobacco. Over time, health professionals discovered the harmful effects of nicotine, a highly addictive component in tobacco. In recent years, vaping—using electronic cigarettes or "e-cigs"—has emerged as a trendy alternative. Marketed as a safer choice, these devices heat a liquid (often containing nicotine, flavorings, and chemicals) into an aerosol that the user inhales. Many teens are drawn to flavored vaping products, believing they're harmless. However, vape liquids may still contain addictive substances and toxic chemicals that damage the lungs.

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Nicotine's Addictive Nature

Nicotine is one of the primary reasons both smoking and vaping are so addictive. Once inhaled, nicotine rapidly enters the bloodstream and travels to the brain, triggering the release of dopamine, a neurotransmitter associated with pleasure. Over time, the brain starts to crave this rush, leading to repeated use and eventually dependence. Withdrawal symptoms like irritability, trouble focusing, and mood swings can occur if usage is stopped. For teens, whose brains are still developing, nicotine can interfere with essential neural pathways that govern attention and learning. It's not just a "bad habit"; it rewires the brain to need more of the substance.

Health Risks: Beyond Just the Lungs

Traditional cigarette smoking has long been linked to lung cancer, heart disease, and respiratory illnesses such as bronchitis and emphysema. Vaping, while sometimes promoted as less harmful, can also pose significant risks. Some vaping liquids contain

ultrafine particles, heavy metals like lead, or cancer-causing agents. Because vaping is relatively new, scientists are still studying its long-term impact. However, cases of lung damage (sometimes called EVALI: E-cigarette or Vaping Use-Associated Lung Injury) have already appeared among users, including teens. The cardiovascular system can also be affected. Nicotine increases heart rate and blood pressure, straining the heart. Prolonged use can contribute to the development of cardiovascular issues, and mixing nicotine with other substances can exacerbate the risks.

Advertising and the Youth Market

One of the most alarming aspects of vaping is how it has been marketed to youth. Candy-like flavors and sleek packaging may give the impression that these products are harmless. Social media ads, celebrity endorsements, and eye-catching displays all play a role in normalizing vaping among teenagers. The Food and Drug Administration (FDA) has taken steps to regulate advertising, but the landscape is constantly evolving. Teens need to be aware that while certain flavors may seem fun or harmless, they can still carry significant health implications. Companies often use these flavors to get consumers hooked on nicotine, ensuring continued sales.

Resources to Quit and Stay Healthy

For teens already using tobacco or vaping products, quitting can be challenging but entirely possible. Programs ranging from school-based support groups to online counseling platforms offer free resources tailored to young people. Some rely on motivational apps, text-based coaching, or nicotine replacement therapies under medical guidance. The key is recognizing addiction as a real condition that often requires support to overcome. Friends and family can also offer encouragement by understanding that withdrawal might involve changes in mood or behavior. Prevention is equally important. Educating yourself and others about the risks can help reduce curiosity or peer pressure. Activities that promote overall health—like sports, clubs, or art—provide a positive outlet. Staying informed through reliable sources and being skeptical of flashy marketing helps teens make decisions that prioritize long-term wellness.

Key Information: Key Comparison Table

Factor	Smoking	Vaping
Delivery Method	Inhalation of tobacco smoke	Aerosolized liquid (often with nicotine)
Primary Risks	Cancer, heart disease, lung damage	Respiratory issues, possible toxic chemical exposure
Addictive Substance	Nicotine	Nicotine (in most e-liquids)
Advertising	Restricted in many countries	Rapidly evolving, often targets younger consumers

Case Study Excerpt

Damien started vaping during his freshman year after seeing his older cousins use sleek, flavored vape pens. He reasoned that if they were doing it without obvious consequences, it must be safe. A few months in, Damien noticed he felt anxious whenever he went too long without vaping. His friends also started complaining that he was constantly distracted, fiddling with his vape pen instead of joining conversations. When Damien tried to cut back, he experienced headaches and trouble sleeping. Around this time, a local health clinic hosted a workshop on vaping's impact on teens. Curious, Damien attended and was shocked to learn the vape liquid he used contained high levels of nicotine and a variety of chemicals not approved for inhalation. The stories of lung injuries and hospitalizations terrified him. After the session, he decided to quit cold turkey—only to realize just how strong the cravings could be. He spent days feeling irritable and fatigued, snapping at his family over minor issues. Ultimately, he sought help from a counselor who taught him coping skills for withdrawal and stress management. Damien's journey highlights how easily a teen can fall into nicotine dependence and how much effort it can take to break free. His experience serves as a cautionary tale to question assumptions about safety, especially regarding new trends that lack extensive long-term studies.

1. How did Damien's initial assumptions about vaping differ from the reality he discovered at the workshop?

_____

_____

2. What challenges did Damien face when he tried to quit, and what support did he eventually seek?

_____

_____

Multiple Choice

1. Which substance in tobacco and many vape liquids is primarily responsible for addiction?

    a) Nicotine

    b) Carbon monoxide

    c) Vitamin E

    d) Tar

2. Why might flavored vape products be especially appealing to teens?

    a) They are advertised as completely free of chemicals

    b) They taste like medicine

    c) The flavors and marketing can seem harmless and fun

    d) They cost more money than regular tobacco products

3. Which of the following is not a documented risk of smoking or vaping?

    a) Heart strain due to nicotine use

    b) Brain damage from loud sounds

    c) Respiratory illnesses

    d) Potential for addiction

Matching

Write the letter of the correct definition on the line next to each term.

Term	Definition
1. ___ EVALI	A) Using electronic devices to heat a liquid into an aerosol for inhalation
2. ___ Nicotine	B) Government agency regulating food, drugs, and e-cigarette marketing in the U.S.
3. ___ Vaping	C) Physical and mental symptoms experienced after stopping an addictive substance
4. ___ Withdrawal	D) E-cigarette or vaping product use-associated lung injury
5. ___ FDA	E) Substance that causes the addictive effect in tobacco products

Fill-in-the-Blank

1. _____ is a government body that enforces regulations on e-cigarette marketing to protect consumers.

2. _____ is the term used for the lung injuries linked to some vaping products.

3. Many e-liquids contain _____, which can cause dependence and withdrawal symptoms.

Short Answer

Answer each question in 2-4 complete sentences.

1. Why might teens assume vaping is harmless compared to smoking?

_____

_____

_____

2. How does marketing play a role in the rise of teen vaping?

3. What can friends or family do to support someone trying to quit nicotine products?