Southern Illinois Drug Awareness Conference
Back Bigger Better

Vaping: Don’t Let it Cloud Your Future

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Welcome!

- Lifelong resident of Southern Illinois.
- Behavioral Health Nurse since 2013.
- BSN from Mckendree University in 2020.
- MSN, FNP from Maryville University in 2023.
- Currently the onsite provider for The Fellowship House Campus of Centerstone in Anna, IL
Key Points

- What is Vaping?
- Vaping devices.
- Why do people vape?
- How popular is vaping?
- Vaping vs. Smoking.
- What is Nicotine?
- Cycles of Nicotine Addiction.
- How does vaping affect overall health?
- Vaping related illnesses.
- Affects on the adolescent brain.
- Impact of vaping on substance abuse.
- Government regulation.
- Prevention.
Let’s Talk Vaping!
What is Vaping?

- Vaping consists of inhaling and exhaling aerosol, also known as vapor.
- Vapor is produced by electronic device such as an “electric cigarette (e-cigarette)”, “vape”, or similar device.
- 1930’s first patent for an “electronic vaporizer”.
  - Intended for medicinal purposes.
- 1979 first vape pen commercialized.
- Marketed as “Favor” cigarettes.
- In 2003, 1st modern vape pen known was released in Beijing
- In 2006, the modern vape pen was released in the US.
- By 2020, the vape, known as the Juul gained worldwide popularity.
Vaping Devices
What does a device consist of?

vaping devices - Search Images (bing.com)
A JUUL? What is that?

- Most used vape device among adolescents.
- Can contain the same amount of Nicotine as 20 regular cigarettes in just one pod.
- According to the CDC, approximately two-thirds of Juul users aged 15-24 are unaware the devices contain nicotine.
What’s the attraction?
Puffing Poison?
What is in the Juice?

- Flavored chemicals such as propylene glycol and glycerin.
- Varying levels of nicotine.
- Vitamins and essential oils.
- THC oil.
- Methamphetamine.
How Popular is Vaping?

In 2019, it was projected that by 2023, vaping products would generate $48 billion in sales.
In 2021, 4.5% of adults aged 18 and over were current electronic cigarette (e-cigarette) users, with e-cigarette use highest among adults aged 18-24 (11.0%).

Current e-cigarette use varies by race and Hispanic origin; among all adults aged 18 and over, the percentage of users who are White, non-Hispanic adults (5.2%) was higher than Asian non-Hispanic (2.9%), Black or African American non-Hispanic (2.4%), and Hispanic or Latino (3.3%) adults.

E-cigarette use among adults aged 18 and over generally declined with increasing family income.

Adults aged 18-24 and 25-44 were more likely to be dual users of e-cigarettes and cigarettes compared with adults aged 45 and over.
<table>
<thead>
<tr>
<th>Cigarette Smoking</th>
<th>Vaping</th>
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<td>❖ Over 7,000 chemicals.</td>
<td>❖ Contains organic compounds such as Benzene.</td>
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<tr>
<td>❖ Carcinogenic compounds.</td>
<td>❖ Nickle, tin, and lead.</td>
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<td>❖ Stigma.</td>
<td>❖ Less expensive.</td>
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<td>❖ Known affect on health.</td>
<td>❖ More social appeal.</td>
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<td>❖ Unknown affect on health.</td>
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Cycles of Nicotine Addiction
Nicotine Addiction

- Extremely addictive substance, especially for children.
- Addiction occurs quickly.
- Changes brain chemistry in the developing brain.
- Significantly increases risk of addiction to other substances.
- Thought to be more addictive than Heroin and Meth.
Affect of Nicotine on Overall Health
- Increases blood pressure, pulse, and respirations.
- Increased Cardiovascular events.
- Chronic Obstructive Pulmonary Diseases (COPD).
- Increases risk of cancer of various organs.
- Affects reproductive organs.
Vaping Related Illnesses
Bronchiolitis Obliterans “Popcorn Lung”

- Diacetyl, found in the majority of “vape juice” is linked to “Popcorn Lung”.
- Diacetyl was originally used to simulate butter flavoring in microwave popcorn, prior to being removed from the market.
- Chemicals that are inhaled cause scarring in the tissues of the lungs, known as the bronchioles.
- Bronchioles are the smallest tubules, with alveoli being tiny air sacks in the lungs.
- Results in irreversible scarring, thickening, and narrowing of the airway.
- Symptoms are similar to the symptoms of Chronic Obstructive Pulmonary Disease (COPD).
- Coughing, wheezing, and shortness of breath result.
- The first known case due to vaping was an adolescent.
Additional Dangers of Vaping

- Hard metal lung disease.
- Gastrointestinal disruption.
- Increased risk of Communicable diseases due to effect on immune system.
- Linked to increased cases of COVID-19 among adolescents.
- Increased risk of burns due to device explosions.

- Most common burn areas were thigh, hand, genitals, and face.
- Ranges from second to third degree burns.
Impact on Adolescents
The Affect on the Development of the Brain

- Nicotine can hinder the growth of the adolescent brain until approximately the age of 25.
- High risk of going on to using regular cigarettes.
- More likely to use THC and other drugs.
What is the impact of Vaping on Substance Use?

- Numerous websites, blogs, and forums have aided individuals in ways to modify the components of vapes to deliver illicit substances such as Methamphetamine.
- Soluble methamphetamine can be easily aerosolized with a boiling point of 212 degrees Celsius.
- Allows individuals to discretely consume the drug in public.
- An increase in patient reports in the last year.
- Researchers first reported the use of Methamphetamine in vape devices in 2019.
Government Regulation
On January 2nd, 2020, the U.S. Food And Drug Administration (FDA) finalized an enforcement policy that prohibits the sale of prefilled cartridge e-cigarettes in any flavor other than tobacco or menthol, unless authorized by FDA.

Several states and communities have restricted the sale of flavored tobacco products, including menthol-flavored products.

No current restriction on advertising.

No current requirement for products to be kept behind the counter.

No current warning labeling reflecting explosion hazard.
What Can You Do?
Prevention

- Education and awareness.
- Reduced access and availability.
- Early detection.
- Compassionate, health-based interventions.
- Promote cessation and other ways to address mental health.
Resources


- Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults | CDC

Thank you for joining me!

Questions? Comments?