2019

More than 5 million U.S. youth are using e-cigarettes[1]

How much do you know about the epidemic?

E-cigarettes, also known as "**vapes**," are becoming increasingly popular among teens.

In fact, they are the most commonly used tobacco product among both middle and high school students.[9] You may have already seen or heard about students vaping in your school, but it is important to know that certain types of vapes can be used very discreetly.

SOME TEENS REPORT USING E-CIGARETTES IN SCHOOL BATHROOMS AND EVEN IN THE CLASSROOM.[2]

Learning more about the different types of e-cigarette products is an important first step in addressing youth vaping.

DID YOU KNOW:

E-cigarettes come in a variety of shapes and sizes and may not look like a tobacco product, which can make them hard to spot.[2]

Some devices popular among teens — like JUUL and myblu — are as small as a USB flash drive and even look like one.[2,16]

Certain products emit very low amounts of aerosol or "vapor," which makes them easier to use discreetly than combustible cigarettes.[9,11]

Most e-cigarettes contain nicotine, the same highly addictive drug in cigarettes. Some e-cigarettes[5] may contain as much nicotine as a pack of 20 regular cigarettes.[3]

A Big Problem... A SMALL DEVICE

In 2019, over

27% of high school students

and over

10% of middle school students

were using e-cigarettes.[1]

CENTER FOR TOBACCO PRODUCTS

Source: Cullen, et al. JAMA 2019

Note: All numbers presented here are estimates.

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Many teens have dangerous misperceptions that lead them to believe that vaping is harmless.[9]

Important facts to share with youth

Vape aerosol can contain harmful chemicals

Vaping can expose the user's lungs to harmful chemicals like formaldehyde, acrolein, and acetaldehyde, which are known to cause irreversible lung damage.[4,5]

There can be danger behind the flavor

Vapes get their flavors from chemicals. While these flavorings are safe to eat in food, they're not safe to inhale. Inhaling flavor chemicals can harm your lungs.[6]

Want an example? Some buttery-flavored vapes like caramel contain diacetyl and acetoin. Inhaling diacetyl has been linked to popcorn lung, a lung disease that doesn't have a cure.[6]

Most vapes contain nicotine, which is highly addictive

Vaping delivers nicotine to the brain in as little as 10 seconds.[7] A teen's brain is still developing, making it more vulnerable to nicotine addiction.[8,14] Nicotine exposure during the teen years can disrupt normal brain development.[9,14] It may have long-lasting effects, like increased impulsivity and mood disorders.[9,12,13,15]

Vapers could be inhaling metal particles into their lungs

Vape aerosol could be delivering metal particles like chromium, nickel, lead, tin and aluminum right into your lungs. Some of these metals are toxic.[10,11]

FDA's Efforts to Curb Youth E-Cigarette Use

FDA is committed to protecting youth from the dangers of e-cigarettes, including cracking down on illegal sales to anyone under 18 and holding retailers and manufacturers accountable for marketing practices. Also, in addition to our national peer-to-peer public education campaign called "The Real Cost" FDA has joined forces with Scholastic to provide teachers and school administrators with the resources they need to educate their students about e-cigarettes.

Together, we've created a **free lesson plan and research activity** for teachers to educate their students on the health risks of e-cigarette use. Please visit the Scholastic youth-vaping-risks site to access these resources.

Quitting Help Is Available

There is an urgent need to share resources with teens who are addicted to e-cigarettes to help them quit. Together with the National Cancer Institute, the FDA has launched a series of web pages to help.

» Smokefree Teen — If you identify teens using e-cigarettes at school, it is critical to share the resources at Smokefree Teen to help them quit.

Other Resources

If you know a student who has experienced unexpected health or safety problems related to e-cigarettes, we encourage you to report this incident to FDA through the online Safety Reporting Portal. These reports are confidential and help the FDA identify trends and causes.

To follow recent information on outbreaks linked to e-cigarette use, visit the FDA and CDC websites.

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