E-cigarettes and Youth: What Health Care Providers Need to Know

WHAT ARE E-CIGARETTES?

Electronic cigarettes (e-cigarettes) are battery-powered devices that deliver nicotine, flavorings, and other ingredients to the user. Using e-cigarettes is sometimes called "vaping." E-cigarettes do not create harmless "water vapor" – they create an aerosol that can contain harmful chemicals.

HOW MANY YOUTH ARE USING E-CIGARETTES?

- E-cigarettes have been the most commonly used tobacco product among U.S. youth since 2014.
- In 2019, CDC and FDA data showed that more than 5 million U.S. youth, including over 1 in 4 high school students and about 1 in 10 middle school students, used e-cigarettes in the past 30 days.
- During 2017 and 2018, e-cigarette use skyrocketed among youth, leading the U.S. Surgeon General to call the use of these products among youth an epidemic in the United States.

WHAT ARE THE RISKS FOR YOUTH?

- Most e-cigarettes contain nicotine, which is highly addictive. Nicotine exposure during adolescence can:
  - » Harm brain development, which continues until about age 25.
  - » Impact learning, memory, and attention.
  - » Increase risk for future addiction to other drugs.
- Young people who use e-cigarettes may be more likely to go on to use regular cigarettes.
- Many e-cigarettes come in kid-friendly flavors – including mango, fruit, and crème – which make e-cigarettes more appealing to young people.
- E-cigarette aerosol is not harmless. It can contain harmful substances, including:
  - » Nicotine
  - » Cancer-causing chemicals
  - » Volatile organic compounds
  - » Ultrafine particles
  - » Flavorings that have been linked to lung disease
  - » Heavy metals such as nickel, tin, and lead

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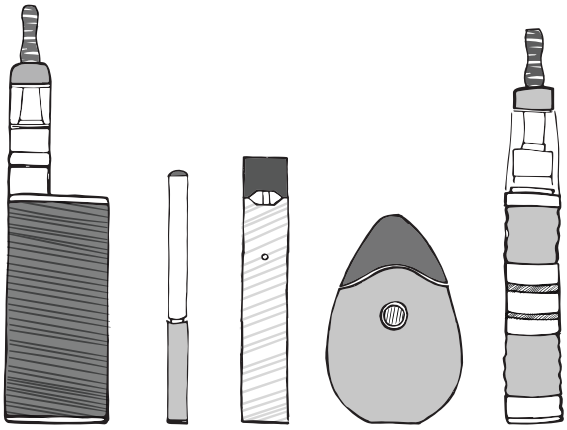
WHAT DO E-CIGARETTES LOOK LIKE?

- E-cigarettes come in many shapes and sizes. Some look like regular cigarettes, cigars, or pipes. Larger e-cigarettes such as tank systems – or "mods" – do not look like other tobacco products.
- Some e-cigarettes look like other items commonly used by youth, such as pens and other everyday items. New e-cigarettes shaped like USB flash drives are popular among youth, including JUUL and the PAX Era, which looks like JUUL and delivers marijuana.



WHAT CAN YOU DO AS A HEALTH CARE PROVIDER?

As a health care provider, you have an important role in addressing this epidemic among youth.

- Ask about e-cigarettes and vaping – including discreet devices such as JUUL – when screening patients for tobacco product use.
- Educate patients about the risks of tobacco product use, including e-cigarettes for young people, and counsel youth and young adults to quit.
- Learn about the different shapes and types of e-cigarettes and the risks of e-cigarette use for young people at **CDC.gov/e-cigarettes**.

ABOUT USB FLASH DRIVE-SHAPED E-CIGARETTES

As a health care provider, you may have heard about the use of USB flash drive-shaped e-cigarettes, including JUUL (pronounced "jewel"). JUUL is the top-selling e-cigarette brand in the United States.

JUUL is being used by students in schools, including in classrooms and bathrooms. JUUL's nicotine liquid refills are called "pods." According to the manufacturer, a single JUUL pod can contain as much nicotine as a pack of 20 regular cigarettes.

JUUL delivers nicotine in a new form called "nicotine salts," which can make it less harsh on the throat and easier to use by youth. JUUL also comes in flavors that can appeal to youth.

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