

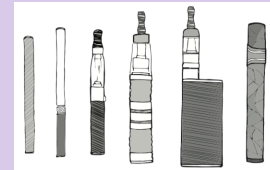
For Health Care Providers: The Risks of E-Cigarettes and Vaping

What are e-cigarettes/vaping?

- E-cigarettes are known by a variety of names: vape pens, e-hookahs, mods, tank systems, and e-cigs
- Electronic devices that use a battery to aerosolize a liquid, which is inhaled by the user through a mouthpiece
- More common than the use of regular cigarettes in teens
- Many of your patients are unaware that nicotine is a common ingredient in e-cigarettes

What may vapes contain?

- **Nicotine**
- **Marijuana**
- **Cannabidiol (CBD)**
- **Ultrafine particles** that can be inhaled deep into the lungs
- Flavorants such as **diacetyl**
- **Volatile organic compounds**
- **Heavy metals**
Nickel, tin, chromium and lead



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How does vaping affect the lungs?

- EVALI: e-cigarette and vaping associated lung injury. This disease may be irreversible, and some patients have required a lung transplant
- Bronchiolitis obliterans

Effects on the transplant patient

- Increased risk of dental (cavities, infections) and periodontal disease and oral cancer
- Worsening hypertension
- Malignancy
- Marijuana may lead to poor adherence
- Marijuana may cause erratic tacrolimus levels

How do I educate my patients?

- Screen **ALL** patients about e-cigarette use
- Educate them about e-cigarette contents (nicotine, marijuana, additives)
- Nicotine in any form, is unsafe for youth
- Nicotine is highly addictive and can harm the developing adolescent brain.
- Educate young patients that they are more vulnerable to becoming addicted than older individuals

<https://www.lung.org/stop-smoking/vape-talk/>