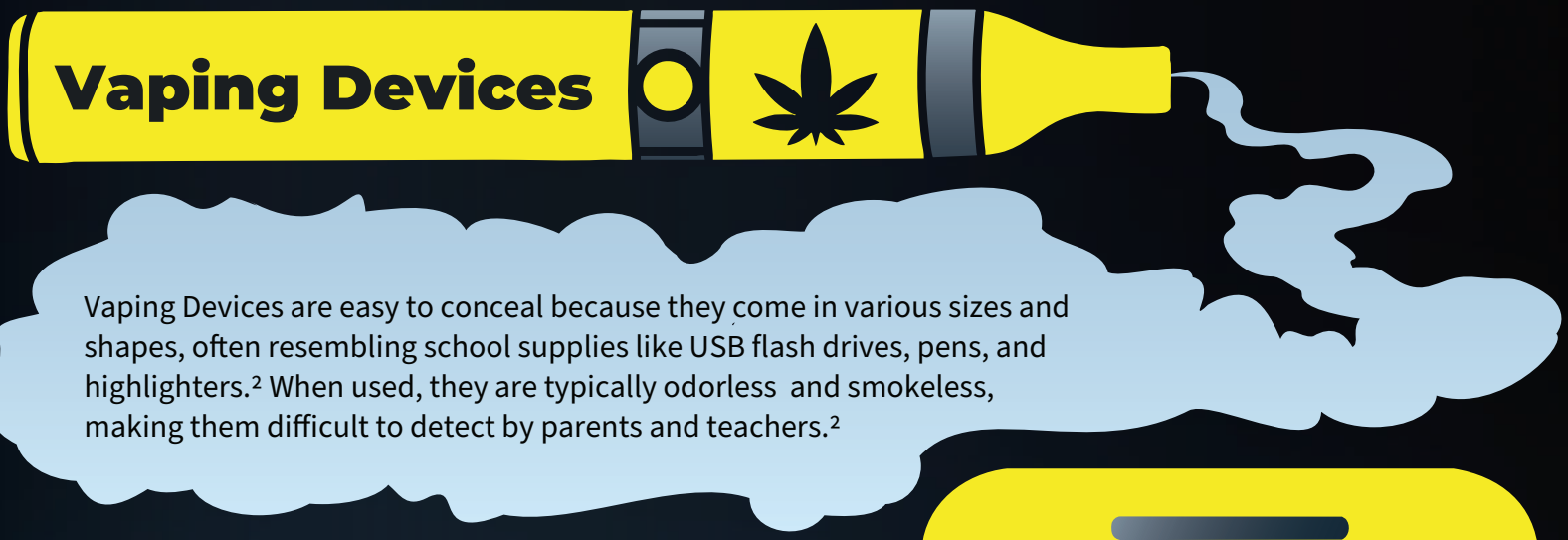
Marijuana Vaping:

Health, Youth, and Environmental Impact

Vaping marijuana involves heating the plant or concentrates to create a vapor for inhalation. Devices are categorized into "dab pens," which are small and used with concentrated forms like wax or shatter, and "vaporizers," which work with marijuana flower, liquids, or concentrates.[1] Both types include a battery, heating element, and chamber or cartridge.[1] Heat releases tetrahydrocannabinol (THC) – the primary psychoactive compound in marijuana – and other active compounds into a mist for absorption through the lungs.[1]



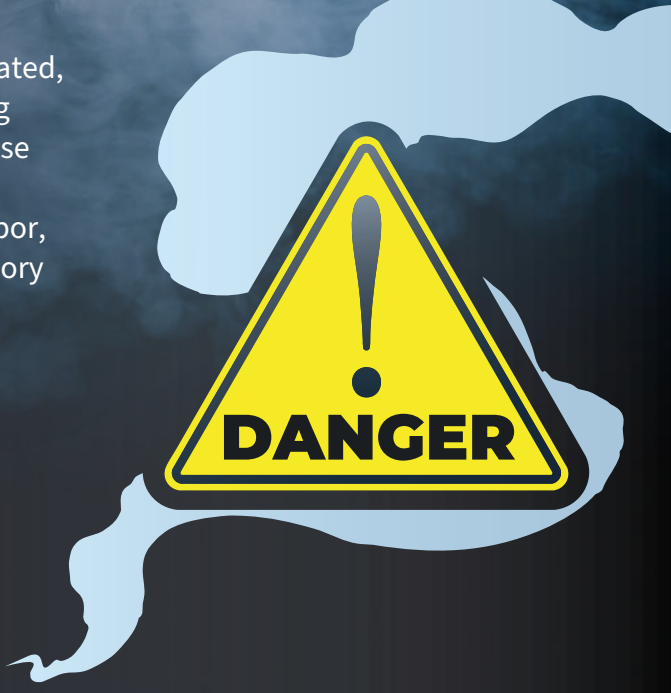
Vaping Devices are easy to conceal because they come in various sizes and shapes, often resembling school supplies like USB flash drives, pens, and highlighters.[2] When used, they are typically odorless and smokeless, making them difficult to detect by parents and teachers.[2]

Marijuana vaping is linked to respiratory symptoms such as coughing and mucus production, wheezing, and shortness of breath, especially with frequent use.[4] Vaping marijuana, particularly products containing THC and additives like Vitamin E acetate, has been associated with EVALI (E-cigarette or Vaping Product Use-Associated Lung Injury).[5] A national outbreak of EVALI in 2019-2020 led to 2,807 hospitalizations and 68 deaths.[5]

Vaping marijuana can lead to impaired memory, decision-making, and increased risks of mental health issues like psychosis, particularly in adolescents whose brains are still developing.[6] Vaping marijuana results in higher THC doses, leading to increased risks of paranoia, anxiety, and hallucinations, particularly for first-time users.[7,8] The rapid absorption of THC from vaping increases its addictive potential, contributing to the development of marijuana use disorder.[8,9]

Vaping marijuana has been associated with a higher likelihood of using other substances, such as alcohol, tobacco, and illicit drugs.[10] Younger marijuana vapers are especially at risk of engaging in multiple forms of substance use.[10]

Marijuana vaping products, due to the process by which they are created, may be contaminated with a variety of harmful substances, including heavy metals, pesticides, and solvents.[11] These contaminants can pose serious health risks, such as chemical poisoning and lung damage.[11] Vaping devices themselves can introduce metal particles into the vapor, further contaminating the product and increasing the risk of respiratory issues and other long-term health complications.[12]



Environmental Impact

Vaping products contribute significantly to environmental harm through plastic, electronic, and hazardous chemical waste.[13] Single-use plastic vape pods are non-biodegradable and poorly recyclable, adding to plastic pollution.[13] Disposable vapes also contain circuit boards and lithium-ion batteries, which, if improperly discarded, leach toxic compounds into the environment and pose fire risks in waste facilities.[14] Vaping devices also have the potential to explode, causing burns or other injuries.[2,14] Nicotine-contaminated pods and e-liquid containers are classified as hazardous waste by the EPA, making them unsuitable for regular disposal or recycling.[13] Together, these issues make vaping a growing environmental crisis.

Vaping marijuana has become increasingly common, especially among younger adults. In 2023, 22% of adults aged 19 to 30 reported vaping marijuana in the past year, with 14% doing so in the past month.[15] This marks the highest levels ever recorded for this age group, showing a significant increase compared to five years ago.[15]

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Sources:

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