

E-CIGARETTES: WHAT HAVE WE LEARNED AND WHAT DO WE NEED TO KNOW?

The National Academy of Sciences, Engineering, and Medicine (NAS) issued a comprehensive report on the public health consequences of e-cigarettes in 2018 (61). The report offers insight on several aspects of e-cigarettes, including:

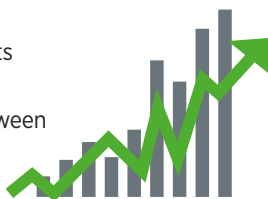
Constituents

- In addition to nicotine, they contain and emit numerous potentially toxic substances
- Nicotine intake among experienced users is comparable to combustible cigarettes; however, exposure to other toxic substances is significantly lower



Use

- Highest among young adults
- Despite sharp increases between 2011 and 2015, use stabilized since 2015



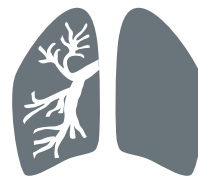
Role in smoking cessation and initiation

- More research is needed to evaluate their value as smoking cessation aids
- Increases youth transitioning to conventional cigarettes



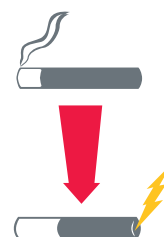
Human health effects

- Need additional research to evaluate long-term health risks, including cancer, cardiovascular and pulmonary diseases, and pregnancy outcomes



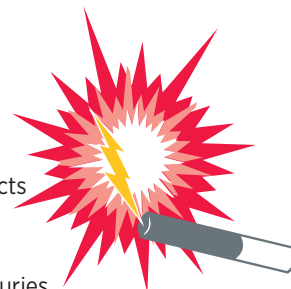
Harm reduction compared to combustible tobacco

- Completely switching to e-cigarettes from regular use of conventional cigarettes can reduce exposure to toxic chemicals



Safety

- Intentional or accidental exposure to e-liquid (from drinking or other contact) can have serious adverse health effects
- E-cigarettes can explode causing burns and other injuries



American Association for Cancer Research (AACR) Cancer Progress Report 2018