

Re: Vaping/Tobacco and seizures.

Pretty much all of the peer-reviewed published data available on a layperson's google-type search is from 2019 and 2020, and they show an association or a correlation between vaping/tobacco use and seizures, but there's not enough information because there have not been enough research/clinical trials/testing to support direct cause and effect between the two thus far.

For the purpose of the PSAs, it would be appropriate to say something in the vein of **"vaping/tobacco use has been associated (or correlated) with provoking seizures in some people."**

Because I wouldn't be me without throwing out more info and to ensure we advocate for accuracy in info:

1) Articles that I found from 2021 or later, sometimes referenced at least one of the 2019 and 2020 articles I looked at.

2) An online epilepsy blog (ESPY) that invites doctors and health professionals and appears to offer solid peer-reviewed facts commented in January 2023:

Right now, there's no concrete evidence that vaping definitely causes seizures. But, there does seem to be a correlation. In 2019, the Food and Drug Administration (FDA) reported that over the previous 10 years, there were 114 times where people reported they'd had seizures soon after vaping. Jan 26, 2023.

In addition the blog adds: **The FDA then started a campaign to get the public to contact them if they had seizures after vaping. By 2021, there were more than 250 new reports. This suggests that many more people might be experiencing this, but they just haven't told the authorities.**

There have also been several 'case reports' (individual examples written by doctors) about vaping and seizures. These reports show that the patients often had seizures very soon after vaping, which seem to suggest there's a link.

<https://www.epsyhealth.com/seizure-epilepsy-blog/can-vaping-cause-seizures#:~:text=Right%20now%2C%20there's%20no%20concrete,had%20seizures%20soon%20after%20vaping.>

3) Research on neural nicotine receptors in the brain has been going on for at least 20 years (I didn't go back any further unless something incidental caught my eye in the articles I looked at.) **"At the toxicity level, nicotine may alter neuronal excitability and lower the seizure threshold."** Though the article that I got this from identified vaping/e-cigarettes as the vehicle for tobacco use and subsequent seizures in one person, the actual cause of the seizure may be related to tobacco use as I don't believe that one person used tobacco in any other form.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9433810/> August 2022

4) From the NIH January 2020:

Findings suggest an association between ENDS (electronic nicotine delivery systems) use and seizures. Additional information will help to clarify the relationship between ENDS use and seizures and to understand how product attributes such as nicotine content, formulation, quantity, and other ingredients or contaminants may contribute to seizures.

It is important that health care providers ask about ENDS use when evaluating neurological symptoms and that users, parents, school personnel, and health care providers report adverse experiences involving tobacco products to Food and Drug Administration via the Safety.

Another FDA link on the same vein:

<https://www.fda.gov/tobacco-products/ctp-newsroom/some-e-cigarette-users-are-having-seizures-most-reports-involving-youth-and-young-adults>

LASTLY, from HHS.gov...I think that the website below would be an excellent site to have a link to from our EHYC webpage. As it's a government link, I don't think it would be a problem to do so, but I'm not fully on top of the protocol for this kind of thing.

https://therealcost.betobaccofree.hhs.gov/vapes?gclid=Cj0KCQjwj_ajBhCqARIsAA37s0wiosWVPZ1YuhKFMzWo-u4Yg57GgnnquIC_vRFzuUf9nfbYHX4ZHWsaAi3bEALw_wcB&gclsrc=aw.ds