

# Vaping or Smoking Pot + COVID-19 = Double Danger - Beware!



## Vaping, like Smoking, Causes Lung Damage & Increases Covid 19 Risks

Over the past 2 months I have been doing extensive research on marijuana smoking and vaping and the effects on lungs. I became concerned about youth users' potential risks for COVID-19, now and in the future. Some facts about the use of e-cigarette or vaping products showed that use can cause deaths and a serious lung disease called Vaping Associated Lung Injury (EVALI), especially for youth.

Many of these cases are caused by the use of THC extract products (marijuana) in vaping devices. As of January 21st this year 2,711 hospitalized EVALI cases or deaths have been reported throughout the U.S. Many cases are unreported. The MTF (Monitoring the Future) survey of drug use in 8th, 10th and 12th graders showed:

- In 2019, one fifth of high school seniors (20.8%) reported having vaped marijuana (for 10th graders is was 19.4%)
- From 2018 to 2019 the percentage of seniors vaping marijuana in the past month increased from 7.5% to 14%. Among 10th graders use was 12.6%
- A recent article in the Journal of the American Medical Association states, "Marijuana vaping produces significantly greater physiological and psychological effects compared with traditional smoking methods at the same tetrahydrocannabinol levels (THC), raising concerns about potential health effects."

After my research, talking to concerned parents, and medical experts, I became more alarmed that the popularity of THC vaping by youth, and lung damage risks and the COVID-19 pandemic, could lead to long-term lung damage, and even death. I was given permission to share the Drug Free America Foundation's excellent info-poster to help give more details about Vaping, Smoking and COVID-19.

***Bottom Line: Use could lead to Double Danger***

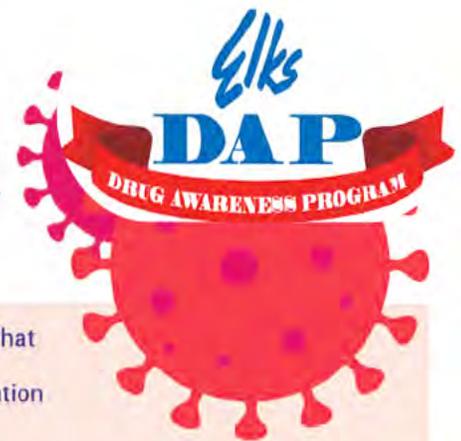
**Please be aware and take the necessary actions to protect your family and friends!**

Best wishes for your health and safety,

**Lynn Fox, Ph.D., Drug Awareness Program Chair, San Rafael Elks Lodge 1108**

# Vaping, Smoking, and COVID-19

According to the National Institute on Drug Abuse, smoking cigarettes, using e-cigarettes, or smoking or vaping marijuana can all increase risk of chronic respiratory conditions, making COVID-19 infection a grave concern for those who use such products.<sup>1,2</sup>



In a recent interview, US Surgeon General Jerome Adams stated that the high prevalence of vaping among young people may partially explain the higher rates of COVID-19 infection among this population in the US compared to other countries.<sup>3</sup>

COVID-19 affects those with respiratory conditions more severely as seen with the 6.3% case fatality rate (CFR) among those with chronic respiratory conditions compared to the 2.3% CFR for the overall population.<sup>2</sup>

6.3%

vs.

2.3%

Case Fatality Rate



COVID-19 infections begin at the ACE2 receptor.

The ACE2 receptor is a protein nestled on the surface of cells throughout the body, including in the upper and lower respiratory tracts. Cigarette smokers have abnormally large numbers of ACE2 receptors, which may leave the lungs more vulnerable to damage inflicted by the coronavirus.<sup>4</sup>

Although no study to date has investigated how ACE2 receptor expression is affected by e-cigarette or marijuana use, it stands to reason that these may confer similar risks as cigarette smoking due to the comparable damage and inflammation they can produce in the lungs and airways.<sup>5</sup>



Marijuana smoke elicits a nearly identical inflammatory reaction in the lungs as cigarettes and also carries a much greater respiratory burden of carbon monoxide and tar.<sup>5</sup>



## Understand the Risks

E-cigarettes release many chemicals that are poisonous to the lungs and damage multiple components of the respiratory system.<sup>6</sup> Prolonged use may cause airway and alveolar inflammation and damage indicating greater susceptibility to respiratory infections.<sup>6</sup>

E-cigarette users may be more prone to pneumonia due to decreased cough sensitivity and diminished ability to clear pathogens and move mucus in the airways. This may further increase risk of complications from COVID-19.<sup>6</sup>

Both marijuana smoke and e-cigarette vapor are associated with inflammation of the airways similar to that observed in patients with COPD and with the development of bronchitis and asthma, all of which are shown to increase risk of severe complications and mortality from COVID-19.<sup>5,6</sup>

Marijuana smoke and e-cigarette vapor may also have immunosuppressive properties that further increase risk of coronavirus infection.<sup>5,6</sup>



The act of smoking or vaping also means that fingers (and possibly contaminated cigarettes, vapes, pipes etc) are in contact with lips, which increases the possibility of transmission of virus from hand to mouth.

1. World Health Organization (2020) Q&A on Smoking and COVID-19. Retrieved from <https://www.who.int/news-room/q-a-detail/q-a-on-smoking-and-covid-19>. 2. National Institute on Drug Abuse National Institute of Health. (2020). COVID-19: Potential implications for individuals with substance use disorders. Retrieved from <https://www.drugabuse.gov/about-nida/noras-blog/2020/04/covid-19-potential-implications-1>. 3. Campaign for Tobacco Free Kids. (2020). Smoking, vaping, & COVID-19: What are health organizations and experts saying? Retrieved from <https://www.tobaccofreekids.org/assets/factsheets/0410.pdf>. 4. Leung JM, Yang CX, Tam A, Shaipankh T, Hackett TL, Singhera GK, Dorscheid DR, Sin DD. ACE-2 Expression in the Small Airway Epithelia of Smokers and COPD Patients: Implications for COVID-19. *Eur Respir J*. 2020. 5. Tashkin DP, Baldwin GC, Sarafian T, Dubinett S, Roth MD. Respiratory and immunologic consequences of marijuana smoking. *J Clin Pharmacol*. 2002 Nov;42(S1):71S-81S. 6. Guitts J E, Jordt S, E, McConnell, R, & Tarran, R. (2019). What are the respiratory effects of e-cigarettes? *BMI*, 366(5275). doi: [https://doi.org/10.1136/bmj.35275](https://doi.org/10.1136/bmj.35275http://dx.doi.org/10.1136/bmj.35275).



[CLICK HERE](#) for the link to the Drug Free America Foundation website



Lynn Fox, Ph.D. San Rafael Elks 1108 Drug  
Awareness Program Chair and Event Chairperson  
Contact for more information: [foxlynn@me.com](mailto:foxlynn@me.com)



San Rafael Elks Lodge 1108 (former Boyd Mansion)  
[1312 Mission Ave., San Rafael CA 94901](https://www.google.com/maps/place/1312+Mission+Ave.,+San+Rafael,+CA+94901)  
415-454-8835 & 415-453-1108