

# Vaping and COVID-19: Is now a 'reachable moment' to help your teen quit?

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When schools closed this spring to slow the spread of the novel coronavirus, teens faced a stressful new reality: a loss of school's daily structure, an upended social life eliminating in-person interactions with friends, and the specter of falling ill with COVID-19. The Centers for Disease Control and Prevention (CDC) has identified children and teens

as being particularly vulnerable to [anxiety related to this pandemic](#).

Without the ability to spend time with friends, play sports, or engage in other healthy stress-relieving behaviors, many teens don't know what to do with their feelings, and some may turn—or return—to vaping. One in three [high school students](#) said they used some form of tobacco in 2019, according to the annual National Youth Tobacco Survey (NYTS), and the number of middle-schoolers who use tobacco products has also been rising. (Both groups preferred e-cigarettes above any other tobacco products.)

## **A "reachable moment" for teens with a vaping addiction**

Some doctors think the current COVID-19 pandemic could present a "reachable moment" where parents can help their children stop vaping, an activity that is so pervasive among teens that the U.S. Surgeon General has called it an epidemic.

When stay-at-home orders for COVID-19 were first in effect, some parents were caught off guard by the realization that their child may have a vaping addiction. A silver lining to the current crisis may be that parents have an opportunity to spend more time with their teens and help them access the resources they need.

"The [coronavirus](#) has brought up a lot of concern," says Olivia Gladstein, a high school senior in Wilton, Connecticut. Gladstein volunteers at [Trackside](#), a teen-run organization that promotes tobacco-free socializing. She says she's heard stories from peers who are "definitely trying to cut back or quit," while at the same time, she says that "a lot of people are feeling stressed and turning to vaping."

There is little information available that links vaping or even smoking to increased risk for complications from COVID-19, in part, because the [virus](#) is so new that scientists have not yet had a chance to do meaningful research on the topic. But, vaping does present a host of [health risks](#).

The World Health Organization (WHO) and the National Institute on Drug Abuse (NIDA) have both released statements encouraging everyone to quit vaping and smoking during the pandemic (though they stop short of drawing any conclusions between vaping and susceptibility to COVID-19).

"Research about the effects of vaping on the immune system is relatively new and ongoing, but there is preliminary evidence suggesting that there are adverse effects," says Yale Medicine pulmonologist Stephen Baldassarri, MD, Ph.D., who studies adult nicotine addiction. "We do know that, in general, smoking cigarettes and other drugs of misuse can disrupt the cells in the airways, cause irritation and constriction, and adversely affect immune function," he says.

As with all [substance use disorders](#), quitting does not depend solely on willpower, no matter how strong a person's desire to stop.

## **Resources for helping teens quit vaping**

"More research is needed to know how to best help teens quit vaping," explains Deepa Camenga, MD, a Yale Medicine pediatrician who researches youth substance use, and has been active in helping to support parents concerned about their [teen's vaping habit](#). Dr. Camenga explains that online sites are available to provide information to help teens learn about quitting. [This is Quitting](#) is a text-messaging program designed for youth ages 13 to 24 from the nonprofit organization called Truth Initiative. It provides age-appropriate messages tailored to an individual's desired quit date.

Another resource is [Quit Vaping](#), from the National Cancer Institute's Smokefree.gov initiative. The site provides advice on many aspects of quitting, like how to get through the first day, understanding vaping triggers, and what to expect when experiencing nicotine withdrawal. Also, parents should know that pediatricians are eager to help with this challenge; they can still schedule [telehealth visits](#) with their child's pediatrician.

"Health care providers can help connect teens with local resources. On a case-by-case basis, they may also offer nicotine patches or gum 'off-label' to older teens with severe nicotine addiction," Dr. Camenga says.

Of course, adults may also be trying to quit vaping.

"No one really knows the optimal strategy for treating adults with a [vaping](#) addiction," Dr. Baldassarri says. "But we know the things that work for smoking, and these include behavioral counseling, over-the-counter nicotine replacement therapy [such as nicotine patches, lozenges, or gum], and prescription medicines that include varenicline [a smoking cessation aid] and bupropion [an antidepressant]."

## **Respiratory viruses like COVID-19 and smoking**

What the COVID-19 pandemic has shown is that not everyone exposed to a respiratory virus develops symptoms from it. Some people, especially children, infected with COVID-19 can still be infected with and spread the virus despite being asymptomatic.

"We're all getting exposed to viruses all the time, and often we don't get symptoms," says Ellen Foxman, MD, Ph.D., a Yale Medicine pathologist who researches [respiratory viruses](#). Respiratory viruses, ranging from the common cold to the novel coronavirus, infect people by entering through the nose and throat.

"Smoking puts you at a greater risk of getting sick if you get exposed to a virus," Dr. Foxman says.

Dr. Foxman explains that there are several reasons this happens. One is that smoking damages the normal barrier in a person's airways that is part of the first line of defense in fighting off the virus. Lining the airways are cells that make a protective layer of mucus. These cells also have microscopic brushes that line their exterior called cilia. Smoking damages the cilia and prevents them from clearing away mucus.

Another reason is that smoking alters the normal mechanisms that stop viruses from growing, and at the same time, can cause the lungs to become more inflamed when fighting a virus. As a result, a smoker can end up with excessive inflammation in the lungs from a virus, Dr. Foxman says.

A third reason: Smoking can lead to more severe symptoms from a viral infection because the lungs are already damaged by smoking and do not have as much healthy functioning as a nonsmoker's lungs would have.

Dr. Foxman points out that understanding how smoking leads to a compromised immune system took years to establish. "For a lot of medical research, the observation that two things are correlated is there for a long time before you understand how it works," she says. "The bottom line is that a lot of damage from smoking, including the DNA damage that leads to cancer-causing mutations, is actually reversible if someone quits."

"With regard to COVID-19, our understanding is still evolving," Dr. Foxman says. "But, if there was ever a time to be motivated to quit [smoking](#), the virus [SARS-CoV-2] could be a good motivator."

Provided by Yale University

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