NGOTINE BRAIN

How to protect your kids.





THE RUNDOWN

The tobacco industry uses addictive, poisonous nicotine to hook kids on its products. Nicotine is especially dangerous for young people's developing brains, putting them at risk for a lifetime of addiction to tobacco and other substances, mental and physical health problems, and permanent changes to the brain.

Use this guide to help you keep your kids safe from nicotine products like vapes and pouches. Share it with parents, school leaders, and other decision makers. You'll find resources for helping teens quit and a list of telltale signs of nicotine use. Get advice for talking to kids about nicotine addiction, find out how schools are combating the problem, and learn how to help your community fight back against the powerful tobacco industry. CALIFORNIA'S FLAVORED TOBACCO LAW KNOW THE SIGNS OF NICOTINE USE TIPS FOR TALKING WITH TEENS BE PREPARED FOR EXCUSES HELP KIDS UNCOVER THE FACTS WHAT IF MY TEEN IS ADDICTED? WHAT SCHOOLS ARE DOING ABOUT THE PROBLEM * SOURCES

CLICK TO JUMP

CALIFORNIA'S FLAVORED TOBACCO LAW

2022 law ends the sale of flavored tobacco

Ends the sale of most flavored tobacco, including vapes and menthol cigarettes, at retailers.

Protects kids from the tobacco industry's flavored death- and disease-causing products.

Because this new law includes menthol cigarettes, it protects communities that have been ruthlessly targeted and killed by the tobacco industry for decades - like the African American/Black community.

Holds the tobacco industry accountable. Violations will result in a penalty and fines for tobacco retailers who sell these products.

Protects communities of color from further police harassment. The law was intentionally written to focus on the sale of flavored tobacco products, and it does not punish or criminalize individuals for possession, use or purchase.

Does not apply to the sale of flavored shisha/hookah,

Does not apply to the sale of flavored tobacco products online.

premium cigars over \$12, and loose-leaf pipe tobacco.

<section-header>

Are there sweet, fruity, menthol, or chemical smells coming from behind closed doors?

Are there flash drives or other school supplies you don't recognize in your kid's backpack or room? How about small vials, eye dropper bottles, pods, or white pouches—items related to oral nicotine products?

Have you come across unfamiliar USB chargers, batteries, wrappers, or circular plastic containers? Is your teen spending more money than usual or making unexplained online purchases?

Have there been changes in your kid's behavior such as increased mood swings, irritability, anxiety, impulsivity, or learning difficulties?

Is your teen suffering from more frequent headaches or nausea?

TIPS FOR TALKING WITH TEENS

LISTEN

Despite the California flavored tobacco ban, teens can buy nicotine products like flavored vapes and other oral nicotine products online. Whether or not they've tried them, your kids will benefit from a good talk. And a good talk starts with listening. Let the kids tell you what it's like to be surrounded by teens who vape or use oral nicotine pouches. These starter questions are a simple way in:

Do you have friends who vape? Are you curious about it? Have you been offered a vape? How about a nicotine pouch? Have you tried it? If so, what made you say yes? If not, what made you say no?

As kids move through middle and high school, they'll face new challenges. Support them every step of the way by keeping the conversation going. Did you ever feel pressured to smoke? You could talk about your experience, including how hard it was for you to quit. An open dialogue is far more effective than one big lecture.

BLAME FLAVORS AND ONLINE ACCESS

Most high school kids in CA say they use vapes because they like the flavors. Plus, flavored nicotine products like vapes and pouches are available online. Yet the chemicals the tobacco industry uses to create those flavors may damage your lungs, too. Some flavors may increase the likelihood of addiction by messing with dopamine, the brain's "feel-good" chemical. Help kids understand that by hooking them on flavors, including menthol, the tobacco industry profits.

TALK SCIENCE

The main things kids (and adults) know about nicotine is that it's addictive. But addiction is only the beginning. Teens should understand that nicotine is brain poison. It changes the way connections form in the brain, making it harder for kids to learn and pay attention. As if teen years weren't hard enough, nicotine can also increase anxiety, mood swings, and irritability. Getting hooked on nicotine puts kids at risk for addiction to other substances, too.

LEARN MORE

Visit <u>PAVe</u> (Parents Against Vaping ecigs) for a fact-filled toolkit and links to helpful websites and videos.

Use Stanford's <u>anti-vaping toolkit</u> to get downloadable presentations, worksheets, and activity guides.

Get the California Department of Education's <u>e-cigarette toolkit</u>.

Get tips from the U.S. Surgeon General on <u>how to talk to your kids</u> about vaping.

BE PREPARED FOR EXCUSES

Kids are getting a ton of misinformation about vaping and other nicotine products online. Here's how parents can respond to some common excuses.

KID:

It's not mine.

ADULT:

I hope it's not yours, but I get that you might be tempted to try vaping or pouches. I'm worried because nicotine products are addictive and can change the way your brain works. Plus, I know the tobacco industry makes vapes that look like flash drives so they're easy to hide. It's not that I don't trust you, but you should know that I'm paying attention.

KID:

Vaping is safer than smoking.

ADULT:

There's actually nothing safe about vaping. It's not water vapor like some people think. The vapor is actually aerosol that contains metals, particulates, and toxic chemicals. And many vapes use nicotine salts rather than regular nicotine. Salts are inhaled more easily and absorbed faster than regular nicotine.

KID:

Nicotine's just a little buzz.

ADULT:

Nicotine does release a chemical called dopamine in the brain, which might make you feel good temporarily. But don't be tricked. Nicotine is a neurotoxin, which means it's a poison that affects the brain. When you're young and your brain is still developing, nicotine can do lasting, even permanent, damage.

KID:

It's not nicotine. It's just water and flavors.

ADULT:

It's not obvious to kids, or even grownups, that something that tastes minty, fruity, or sweet is actually an addictive drug that can have long-term effects on a kid's developing brain. The chemicals the tobacco industry uses to create those flavors may damage your lungs, too.

HELP KIDS UNCOVER THE FACTS

Help kids see for themselves how the tobacco industry deliberately preys on them.

GOOGLE IT

Teens are digital natives, and a quick Google search will show them how the tobacco industry has marketed vapes to kids. Seeing how companies set out to trick kids into vaping might trigger your teen's BS radar. Here are some of the tobacco industry's marketing tricks to discuss with kids:

Youthful models Their body language Their outfits Sex appeal The colorful, trendy backgrounds Hashtags all over social media Sponsored content from influencers

Ask teens to decide for themselves who they think these companies are trying to reach. Chances are, they'll spot the hypocrisy in a flash.

HISTORY REPEATING

Teens (and adults) might be surprised to learn the tobacco industry has a decades-long history of trying to market to kids. In the 70s, the federal government mandated that cigarette commercials be taken off the air. In the 90s, the cartoon "Joe Camel" was abolished. In 2009, flavored cigarettes (except menthol) were federally banned. And in 2019, new restrictions were put in place by the FDA, albeit with dangerous loopholes. Visit the Smithsonian site to give teens a glimpse of the past and to show them how the vape industry is using Big Tobacco's playbook.

BIG KIDS UNITE

Maybe teens want a shot at impacting the epidemic themselves. With more and more kids vaping, high schoolers could model safe behavior. Connect with California's Friday Night Live for ideas on how teens can tackle this health topic. Or have teens reach out to their school administrators or counselors for other ways to get involved. It could be a science or health project, or it could be applied to community service hours. Ask your teens if they'd be up for putting their leadership skills to work for California's greater good.

WHAT IF MY TEEN IS ADDICTED?

CALL OR TEXT A HELPLINE

Kick It California connects your kid (or you) to a trained Quit Coach. Text "I Can Quit" to 66819 or call <u>800-300-8086</u>.

My Life My Quit connects kids with a supportive, knowledgeable coach. Text "Start My Quit" to 855-891-9989 or call.

DOWNLOAD AN APP

This Is Quitting is a text-message support app for teens. Text "DITCHVAPE" to 88709.

Smoke Free Teen has tools for quitting, including what to expect during the first few days.

The <u>Kick It Quit app</u> creates customized quit_plans.

ENLIST THE PEDIATRICIAN

Ask your pediatrician to talk about nicotine dangers with your teen. Doctors often explain things in a way kids will listen.

BE SUPPORTIVE

Quitting is hard. As many nicotine addicts and recovering addicts will tell you, it usually takes more than one try. Keep encouraging and empathizing with your teen. Reward the incremental progress and accept the setbacks as part of the process.

Get more tips and resources for supporting a loved one's quitting journey from the <u>California</u> <u>Department of Public Health</u>.

WHAT SCHOOLS ARE DOING ABOUT THE PROBLEM

ADMINISTRATORS

Enforcing a tobacco-free policy that includes vapes and oral nicotine products in the definition of "tobacco product" and laying out enforcement and other implementation procedures. See the California Department of Education's Comprehensive <u>Tobacco-Free School Policy</u> <u>Toolkit</u> for more information.

Sharing resources such as this printable guide or <u>undo.org/</u> <u>addicting-kids</u> with administrators to spread the word on school Facebook pages, websites, or in email announcements to parents.

STAFF

Educating teachers, counselors, nurses, coaches, custodians, and other staff so they know what the different nicotine products look like. They are changing all the time.

Posting "No tobacco" signs and announcing reminders at sporting events and other gatherings.

STUDENTS

Engaging students in media literacy to counter the tobacco industry's influence.

Encouraging kids to visit the nurse/ wellness counselor at school for quitting resources like helplines (800-300-8086) and apps (thisisquitting.com).

Implementing in-class curriculum that educates students about nicotine products, including vapes. (See example curriculum, Stanford's tobacco prevention toolkit for schools)

PARENTS

Hosting virtual or in-person informational parent nights featuring public health experts, local doctors, and law enforcement representatives.

Enlisting the Parent Teacher Student Association (PTSA) to adopt an anti-vaping resolution; host educational sessions or activities about nicotine products; host educational forums for parents, students, and community members; and improve campus security with more frequent monitoring of locations where students vape. Be sure to attend to voice your concerns.

*** SOURCES**

Ambrose BK, Day HR, Rostron B, et al. Flavored Tobacco Product Use Among US Youth Aged 12-17 Years, 2013-2014. JAMA. 2015;314(17):1871-1873. doi:10.1001/jama.2015.13802

Aubrey A. Parents: Teens Are Still Vaping, Despite Flavor Ban. Here's What They're Using. NPR. https:// www.npr.org/sections/health-shots/ 2020/02/17/805972087/teens-are-still-vapingflavors-thanks-to-new-disposable-vape-pens. Published February 17, 2020. Accessed March 11, 2020.

Becker R. Juul's nicotine salts are dominating the market - and other companies want in. The Verge. https://www.theverge.com/2018/11/21/18105969/juulvaping-nicotine-salts-electronic-cigarettes-mybluvuse-markten. Published November 21, 2018. Accessed March 13, 2020.

Brandt AM. Inventing conflicts of interest: a history of tobacco industry tactics. Am J Public Health. 2012;102(1):63-71. doi:10.2105/AJPH.2011.300292

Cascella M, Rajnik M, Cuomo A, et al. Features, Evaluation and Treatment Coronavirus (COVID-19) [Updated 2020 Apr 6]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. Available from: https://www.ncbi.nlm.nih.gov/ books/NBK554776/

CDC Foundation. Monitoring U.S. E-Cigarette Sales: State Trends. Atlanta, GA: CDC Foundation; 2020.

Centers for Disease Control and Prevention. Cases in U.S. cdc.gov. https://www.cdc.gov/coronavirus/2019ncov/cases-updates/cases-in-us.html. Published 2020. Accessed April 15, 2020.

Centers for Disease Control and Prevention. Outbreak of Lung Injury Associated with the Use of E-Cigarette, or Vaping, Products. cdc.gov. https:// www.cdc.gov/tobacco/basic_information/ecigarettes/severe-lung-disease.html. Published 2020. Accessed February 18, 2020.

Centers for Disease Control and Prevention. Quick Facts on the Risks of E-cigarettes for Kids, Teens, and Young Adults. cdc.gov. https://www.cdc.gov/ tobacco/basic_information/e-cigarettes/Quick-Facts-on-the-Risks-of-E-cigarettes-for-Kids-Teensand-Young-Adults.html. Reviewed February 3, 2020. Accessed May 8, 2020.

Centers for Disease Control and Prevention. World Map. cdc.gov. https://www.cdc.gov/coronavirus/ 2019-ncov/global-covid-19/world-map.html. Updated May 7, 2020. Accessed May 7, 2020.

Cleveland Clinic. Here's the Damage Coronavirus (COVID-19) Can Do to Your Lungs, clevelandclinic.org. https://health.clevelandclinic.org/heres-thedamage-coronavirus-covid-19-can-do-to-yourlungs/. Published March 20, 2020. Accessed April 8, 2020.

Crawford C. NYSAFP: Ban Tobacco/Vaping Products During COVID-19 Pandemic. American Academy of Family Physicians. https://www.aafp.org/news/ health-of-the-public/ 20200407nysafptobaccoban.html. Published 2020. Accessed April 15, 2020.

Cullen KA, Gentzke AS, Sawdey MD, et al. e-Cigarette Use Among Youth in the United States, 2019 [published online ahead of print, 2019 Nov 5]. JAMA. 2019;322(21):2095-2103. doi:10.1001/jama.2019.18387

Cullen KA, Ambrose BK, Gentzke AS, Apelberg BJ, Jamal A, King BA. Notes from the Field: Use of Electronic Cigarettes and Any Tobacco Product Among Middle and High School Students – United States, 2011–2018. MMWR Morb Mortal Wkly Rep. 2018;67(45):1276-1277. doi:10.15585/mmwr.mm6745a5

Dai H, Leventhal AM. Prevalence of e-Cigarette Use Among Adults in the United States, 2014-2018 [published online ahead of print, 2019 Sep 16]. JAMA. 2019;322(18):1824-1827. doi:10.1001/jama.2019.15331

Diaz MC, Donovan EM, Schillo BA, Vallone D. Menthol e-cigarette sales rise following 2020 FDA guidance [published online ahead of print, 2020 Sep 23]. Tob Control. 2020;tobaccocontrol-2020-056053. doi:10.1136/tobaccocontrol-2020-056053

Edney A. Juul's Marketing of Device May Have Violated Law, FDA Says. Bloomberg. https://www.bloomberg.com/news/articles/ 2019-09-09/juul-warned-by-fda-over-claims-itsvaping-devices-are-safe. Published September 9, 2019. Accessed May 8, 2020.

Etter JF, Ussher M, Hughes JR. A Test of Proposed New Tobacco Withdrawal Symptoms. Addiction. 2012;108(1):50-59. doi:10.1111/ j.1360-0443.2012.03981.x

Froeliger B, Modlin LA, Kozink R V., et al. Frontoparietal attentional network activation differs between smokers and nonsmokers during affective cognition. Psychiatry Res Neuroimaging. 2013;211(1):57-63. doi:10.1016/ J.PSCYCHRESNS.2012.05.002

Gaiha SM, Cheng J, Halpern-Felsher B. Association Between Youth Smoking, Electronic Cigarette Use, and Coronavirus Disease 2019. J Adolesc Heal. August 2020. doi:10.1016/j.jadohealth.2020.07.002

Gentzke AS, Creamer M, Cullen KA, et al. Vital Signs: Tobacco Product Use Among Middle and High School Students – United States, 2011–2018. MMWR Morb Mortal Wkly Rep. 2019;68(6):157-164. doi:10.15585/ mmwr.mm6806e1

Gotts JE. Jordt SE. McConnell R. Tarran R. What are the respiratory effects of e-cigarettes? BMJ. 2019;366. doi:10.1136/bmj.l5275

Volkow ND. Collision of the COVID-19 and Addiction Epidemics [published online ahead of print, 2020 Apr 2]. Ann Intern Med. 2020;M20-1212. doi:10.7326/ M20-1212

Guan WJ. Ni ZY. Hu Y. et al. Clinical Characteristics of Coronavirus Disease 2019 in China. N Engl J Med. 2020.

Hefler M, Gartner CE. The tobacco industry in the time of COVID-19: time to shut it down? Tob Control. 2020;0(0). doi:10.1136/tobaccocontrol-2020-055807

Hughes JR. Effects of abstinence from tobacco: Valid symptoms and time course. Nicotine Tob Res. 2007;9(3):315-327. doi:10.1080/14622200701188919

Huttunen R, Heikkinen T, Syrjänen J. Smoking and the outcome of infection. J Intern Med. 2011;269(3):258-269. doi:10.1111/ j.1365-2796.2010.02332.

Johnston LD, Miech RA, O'malley PM, Bachman JG, Schulenberg JE, & Patrick ME (2019). Monitoring the Future national survey results on drug use 1975–2018: Overview, key findings on adolescent drug use. Ann Arbor, MI: Institute for Social Research, University of Michigan. Published January 2019. Accessed March 12, 2019.

Karlis N. The e-cig industry poured money into lobbying prior to Trump's reversal on vaping ban. salon.com. https://www.salon.com/2019/11/18/the-ecig-industry-poured-money-into-lobbying-prior-totrumps-reversal-on-vaping-ban/. Published November 18, 2019. Accessed February 21, 2020.

Karni A, Haberman M, Kaplan S. Trump Retreats From Flavor Ban for E-Cigarettes. The New York Times. https://www.nytimes.com/2019/11/17/health/trumpvaping-ban.html. Published November 17, 2019. Accessed February 21, 2020.

Masadeh MM, Hussein EI, Alzoubi KH, Khabour O, Shakhatreh MA, Gharaibeh M. Identification, characterization and antibiotic resistance of bacterial isolates obtained from waterpipe device hoses. Int J Environ Res Public Health. 2015;12(5):5108-15

Mehta H, Nazzal K, Sadikot RT. Cigarette smoking and innate immunity. Inflamm Res. 2008;57(11):497-503. doi:10.1007/s00011-008-8078-6

Monitoring U.S. E-Cigarette Sales: State Trends. https://www.cdcfoundation.org/State-E-CigaretteSales-DataBrief-Dec27?inline. Published December 2020. Accessed May 13, 2021.

Office of the U.S. Surgeon General. Know the Risks. E-cigarettes.surgeongeneral.gov. ecigarettes.surgeongeneral.gov/knowtherisks.html. Accessed March 11, 2019.

Pepper JK, Ribisl KM, Brewer NT. Adolescents' interest in trying flavoured e-cigarettes. Tob Control. 2016;25(Suppl 2):ii62-ii66. doi:10.1136/ tobaccocontrol-2016-053174

Pierce JP, Chen R, Leas EC, et al. Use of E-cigarettes and Other Tobacco Products and Progression to Daily Cigarette Smoking. Pediatrics. 2021;147(2):e2020025122. doi:10.1542/ peds.2020-025122

SB-793 Flavored tobacco products. leginfo.legislature.ca.gov. https:// leginfo.legislature.ca.gov/faces/billTextClient.xhtml? bill_id=201920200SB793. August 28, 2020

Sully E, Brody B. Juul Spent Record \$1.2 Million Lobbying as Regulators Stepped Up. *Bloomberg*. https://www.bloomberg.com/news/articles/ 2019-10-22/juul-spent-record-1-2-million-lobbyingas-regulators-stepped-up. Published October 21, 2019. Accessed February 21, 2020.

Truman P, Stanfill S, Heydari A, Silver E, Fowles J. Monoamine oxidase inhibitory activity of flavoured ecigarette liquids. *NeuroToxicology*. 2019;75:123-128

UCLA Center for Health Policy Research. AskCHIS 2021. Current e-cigarette use status. https:// ask.chis.ucla.edu/. Accessed 11/3/2022.

US Food and Drug Administration. FDA finalizes enforcement policy on unauthorized flavored cartridge-based e-cigarettes that appeal to children, including fruit and mint. https://www.fda.gov/newsevents/press-announcements/fda-finalizesenforcement-policy-unauthorized-flavoredcartridge-based-e-cigarettes-appeal-children. Published January 2, 2020. Accessed February 4, 2020.

US Surgeon General. Surgeon General's Advisory on E-cigarette Use Among Youth. cdc.gov. https:// www.cdc.gov/tobacco/basic_information/ecigarettes/surgeon-general-advisory/index.html. Published December 18, 2018. Accessed May 8, 2020.

Williams M, Villarreal A, Bozhilov K, Lin S, Talbot P. Metal and Silicate Particles Including Nanoparticles Are Present in Electronic Cigarette Cartomizer Fluid and Aerosol. PLoS One. 2013;8(3). doi:10.1371/ journal.pone.0057987

Zhao-Shea R, DeGroot SR, Liu L, et al. Increased CRF signalling in a ventral tegmental areainterpeduncular nucleus-medial habenula circuit induces anxiety during nicotine withdrawal [published correction appears in Nat Commun. 2015;6:7625]. Nat Commun. 2015;6:6770. Published 2015 Apr 21. doi:10.1038/ncomms7770

Zhu S-H, Braden K, Zhuang Y-L, Gamst A, Cole AG, Wolfson T, Li S. (2021). Results of the Statewide 2019-20 California Student Tobacco Survey. San Diego, California: Center for Research and Intervention in Tobacco Control (CRITC), University of California San Diego.