
ELECTRONIC CIGARETTE POISONING PREVENTION RESOURCE GUIDE



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Introduction



Electronic cigarettes — also known as “e-cigarettes,” “e-cigs,” “vapes,” “e-hookahs,” “vape pens,” and “electronic nicotine delivery systems”— include a wide range of battery-powered devices used to inhale nicotine and other chemicals. Although using e-cigarettes is generally thought to be less harmful to health than inhaling smoke from combustibles, these devices also contain toxins and deliver harmful chemicals. Also, while e-cigarettes with nicotine may help individuals quit smoking compared to e-cigarettes without nicotine or no treatment, the long-term health effects of using e-cigarettes are uncertain.¹ These products are unsafe, particularly for youth, young adults, and pregnant women.

E-cigarettes have become very popular among American youth, causing widespread concern among health care providers, parents, poison specialists, tobacco control practitioners, educators, and others. Findings from the National Youth Tobacco Survey indicate that, in 2024, 1.6 million U.S. middle and high school students used e-cigarettes in the past 30 days, including 7.8% of high school students and 3.5% of middle school students. Among those using e-cigarettes, 29.7% of high school and 15.6% of middle school students reported daily use in the past month.²

1 Lindson N, Butler AR, McRobbie H, et al. Electronic cigarettes for smoking cessation. *Cochrane Database Syst Rev*. 2024;1(1):CD010216. Published 2024 Jan 8. doi:10.1002/14651858.CD010216.pub8

2 Park-Lee, E., Jamal, A., Cowan, H., Sawdey, M. D., Cooper, M. R., Birdsey, J., West, A., & Cullen, K. A. (2024). Notes from the Field: E-Cigarette and Nicotine Pouch Use Among Middle and High School Students - United States, 2024. *MMWR. Morbidity and mortality weekly report*, 73(35), 774–778. <https://doi.org/10.15585/mmwr.mm7335a3>

Due to an outbreak in 2019, national attention has recently focused on vaping-related lung injury. As of February 18, 2020, 2,807 cases of hospitalizations or deaths due to e-cigarette, or vaping, product use – associated lung injury (EVALI) have been reported to the Centers for Disease Control and Prevention from 50 states, D.C., Puerto Rico and the U.S. Virgin Islands.³ Other injury-related consequences of electronic cigarette use include acute nicotine exposure among children and youth caused by swallowing, breathing, or absorbing e-cigarette liquid, as well as fires and explosions caused by defective e-cigarette batteries, some of which have resulted in serious injuries.⁴ The harmful impact of nicotine exposure on the developing brain of children has been reported in research studies, with effects including cardiorespiratory issues and impacts to cognition, learning, and memory.⁵

Health care providers, school staff, coaches, parents/caregivers, and policy makers can all play a role in preventing the use of e-cigarettes among youth and young adults.

The Children's Safety Network has produced this resource guide to provide useful e-cigarette poisoning prevention resources to help state, jurisdiction, and local health departments and their partners expand and enhance their prevention efforts. This resource guide is divided into five sections: Organizations, Prevention Resources, Legislation, Publications, and Data Sources. The resources included in this guide are not meant to be comprehensive, nor are the listings intended as endorsements.

Organizations

American Academy of Pediatrics (AAP)

<https://www.aap.org>

America's Poison Centers (APC)

<https://poisoncenters.org/>

American Lung Association

<https://www.lung.org/quit-smoking/e-cigarettes-vaping>

Centers for Disease Control and Prevention (CDC)

<https://www.cdc.gov/tobacco/e-cigarettes/index.html>

Health Resources and Services Administration

<https://poisonhelp.hrsa.gov/>

3 Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. (2025) [2021-2023] <https://wisqars.cdc.gov/>.

4 American Academy of Pediatrics. CDC: Most e-cigarette calls to poison centers involved children 5 years and younger. June 22, 2023. <https://publications.aap.org/aapnews/news/24884/CDC-Most-e-cigarette-calls-to-poison-centers>

5 Castro EM, Lotfipour S, Leslie FM. Nicotine on the developing brain. *Pharmacol Res.* 2023 Apr;190:106716. doi: 10.1016/j.phrs.2023.106716.

National Institute on Drug Abuse
<https://nida.nih.gov/>

Truth Initiative
<https://truthinitiative.org/>

U.S. Food & Drug Administration (FDA)
<https://www.fda.gov/tobacco-products/products-ingredients-components/e-cigarettes-vapes-and-other-electronic-nicotine-delivery-systems-ends>

Prevention Resources

Child and Adolescent Poisoning Prevention Webinar | Children's Safety Network (CSN)
<https://www.childrenssafetynetwork.org/events/child-adolescent-poisoning-prevention>

E-Cigarettes and Liquid Nicotine | APC
<https://poisoncenters.org/track/ecigarettes-liquid-nicotine>

E-Cigarettes and Vaping Toolkit | AAP
<https://www.aap.org/en/patient-care/tobacco-control-and-prevention/youth-tobacco-cessation-toolkits/e-cigarettes-and-vaping-toolkit/>

E-Cigarettes: Facts, Stats and Regulations | Truth Initiative
<https://www.truthinitiative.org/research-resources/emerging-tobacco-products/e-cigarettes-facts-stats-and-regulations>

E-Cigarettes (Vapes) | CDC
www.CDC.gov/e-cigarettes

E-Cigarettes, Vapes, and Other Electronic Nicotine Delivery Systems (ENDS) | FDA
<https://www.fda.gov/tobacco-products/products-ingredients-components/e-cigarettes-vapes-and-other-electronic-nicotine-delivery-systems-ends>

INDEPTH: An Alternative to Suspension or Citation | American Lung Association
<https://www.lung.org/stop-smoking/helping-teens-quit/indepth.html>

Poison Control Centers

Many poison centers have developed educational materials related to e-cigarettes and vaping. Below are samples. To learn more about resources developed by your local poison center, please contact the center directly.

New Jersey Poison Control Center
<https://www.njpies.org/kids-corner>

Upstate New York Poison Center
<https://www.upstate.edu/poison/community/education-materials.php>

Find a Poison Center
<https://poisonhelp.hrsa.gov/poison-centers/find-poison-center>

Lung Injuries Associated with Use of Vaping Products: Information for the Public, FDA Actions, and Recommendations | FDA

<https://www.fda.gov/news-events/public-health-focus/lung-illnesses-associated-use-vaping-products>

PROTECT Initiative | CDC

<https://www.cdc.gov/medication-safety/protect/index.html>

Resources on E-Cigarettes and Vaping in English and Spanish | FDA

<https://digitalmedia.hhs.gov/tobacco/search?locale=en&page=1&tag=E-Cigarettes+%26+Vaping>

Resources to Help Youth Reject or Quit Vaping | CDC

<https://www.cdc.gov/tobacco/e-cigarettes/youth-quitting.html>

The Real Cost Campaign | FDA

<https://www.fda.gov/tobacco-products/public-health-education-campaigns/real-cost-campaign>

Vaping Devices (Electronic Cigarettes) Drug Facts | National Institute on Drug Abuse

<https://nida.nih.gov/publications/drugfacts/vaping-devices-electronic-cigarettes>

Vaping Prevention & Education: Resources for Talking with Students | Tobacco Education Resource Library

https://digitalmedia.hhs.gov/tobacco/educator_hub?locale=en



Legislation

Commercial Tobacco Control: Ending the Tobacco Epidemic | Public Health Law Center

<https://www.publichealthlawcenter.org/topics/commercial-tobacco-control/e-cigarettes>

State System E-Cigarette Fact Sheet | CDC State Tobacco Activities Tracking and Evaluation (STATE) System

<https://www.cdc.gov/statesystem/factsheets/ecigarette/ECigarette.html>

U.S. E-Cigarette Regulations – 50 State Review | Public Health Law Center

<https://www.publichealthlawcenter.org/resources/us-e-cigarette-regulations-50-state-review>

State Departments of Health/Public Health

Many state health departments have information and materials related to vaping prevention on their websites. Below are a few examples. For information and materials specific to your state, contact your state department of public health.

Iowa Department of Public Health

<https://hhs.iowa.gov/programs/mental-health/tobacco-use-prevention-control/vaping-electronic-smoking>

Massachusetts Department of Public Health

<https://www.mass.gov/preventing-e-cigarette-and-tobacco-use-by-young-people>

Minnesota Department of Health

<https://www.health.state.mn.us/communities/tobacco/ecigarettes/index.html>

Washington State Department of Health

<https://doh.wa.gov/you-and-your-family/commercial-tobacco/vapor-products>

Publications

A Systematic Review and Meta-analysis of School-Based Preventive Interventions Targeting E-Cigarette Use Among Adolescents | Prevention Science

Gardner LA, Rowe AL, Newton NC, Egan L, Hunter E, Devine EK, Aitken T, Thornton L, Teesson M, Stockings E, Champion KE (2024)

<https://pmc.ncbi.nlm.nih.gov/articles/PMC11519311/>

Association of Electronic Cigarette Use with Subsequent Initiation of Tobacco Cigarettes in US Youths | JAMA Network Open (2019)

Berry KM, Fetterman JL, Benjamin EJ, Bhatnagar A, Barrington-Trimis JL, Leventhal AM, Stokes A.

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2723425>

Comprehensive Review of the National Surveys that Assess E-cigarette Use Domains Among Youth and Adults in the United States | The Lancet Regional Health: Americas (2023).

Boakye E, Erhabor J, Obisesan O, Tasdighi E, Mirbolouk M, Osuji N, Osei AD, Lee J, DeFilippis AP, Stokes AC, Hirsch GA, Benjamin EJ, Robertson RM, Bhatnagar A, El Shahawy O, Blaha MJ.

[https://www.thelancet.com/journals/lanam/article/PIIS2667-193X\(23\)00102-3/fulltext](https://www.thelancet.com/journals/lanam/article/PIIS2667-193X(23)00102-3/fulltext)

Disposable E-Cigarette Use and Subsequent Use Patterns in Adolescents and Young Adults | Pediatrics (2024)

Han D, Harlow AF, Ewing SFW, Audrain-McGovern JE, Unger JB, Sussman SY, McConnell R, Barrington-Trimis JL, Leventhal, AM

<https://publications.aap.org/pediatrics/article/153/4/e2023063430/196862>

Electronic Cigarette Explosion/Burn and Poisoning Related Emergency Department Visits, 2018–2019 | American Journal of Emergency Medicine (2020).

Rosshiem ME, McDonald KK, Soule EK, Gimm GW, Livingston MD, Barnett TE, Jernigan DH, Thombs DL

<https://pubmed.ncbi.nlm.nih.gov/33041151/>

Electronic Vapor Product Use Among High School Students — Youth Risk Behavior Survey, United States, 2021 | CDC Morbidity and Mortality Weekly Report (2023)

Oliver BE, Jones SE, Hops ED, Ashley CL, Miech R, Mpofu JJ

<https://www.cdc.gov/mmwr/volumes/72/su/su7201a11.htm>

Health Messaging Strategies for Vaping Prevention and Cessation Among Youth and Young Adults: A Systematic Review | Health Communication (2025)

Wu J, Benjamin EJ, Ross JC, Fetterman JL, Hong T

<https://www.tandfonline.com/doi/full/10.1080/10410236.2024.2352284>

Interventions for Preventing E-cigarette Use Among Children and Youth: A Systematic Review | American Journal of Preventive Medicine (2024)

Mylocopos G, Wennberg E, Reiter A, Hébert-Losier A, Filion KB, Windle SB, Gore G, O'Loughlin JL, Grad R, Eisenberg MJ

[https://www.ajpmonline.org/article/S0749-3797\(23\)00389-6/fulltext](https://www.ajpmonline.org/article/S0749-3797(23)00389-6/fulltext)

Poisoning Exposure Cases Involving E-cigarettes and E-liquid in the United States, 2010–2018 | Clinical Toxicology. (2020)

Wang B, Liu S, Persoskie A

<https://www.tandfonline.com/doi/abs/10.1080/15563650.2019.1661426>

Protecting Children and Adolescents from Tobacco and Nicotine | Pediatrics Clinical Report (2023)

Jenssen, BP, Walley SC, Boykan R, Caldwell AL, Camenga D, Section on Nicotine and Tobacco Prevention and Treatment & Committee on Substance Use and Prevention

<https://publications.aap.org/pediatrics/article/151/5/e2023061805/191063>

Protecting Children and Adolescents from Tobacco and Nicotine | Pediatrics Policy Statement (2023)

Jenssen, BP, Walley SC, Boykan R, Caldwell AL, Camenga D, Section on Nicotine and Tobacco Prevention and Treatment & Committee on Substance Use and Prevention

<https://publications.aap.org/pediatrics/article/151/5/e2023061804/191066/Protecting-Children-and-Adolescents-From-Tobacco>

Protecting Children and Adolescents from Tobacco and Nicotine | Pediatrics Technical Report (2023)

Jenssen, BP, Walley SC, Boykan R, Caldwell AL, Camenga D, Section on Nicotine and Tobacco Prevention and Treatment & Committee on Substance Use and Prevention

<https://publications.aap.org/pediatrics/article/151/5/e2023061806/191067/Protecting-Children-and-Adolescents-From-Tobacco>

Reasons for Vaping Among US Adolescents | Pediatrics (2024)

Patrick ME, Terry-McElrath YM, Arterberry B, Miech RA

<https://publications.aap.org/pediatrics/article/154/6/e2024067856/199869>

Regulatory Strategies for Preventing and Reducing Nicotine Vaping among Youth: A Systematic Review | American Journal of Preventive Medicine (2024)

Reiter A, Hébert-Losier A, Mylocopos G, Filion KB, Windle SB, O'Loughlin JL, Grad R, Eisenberg MJ

<https://www.sciencedirect.com/science/article/pii/S0749379723003136>

Tobacco Product Use among Middle and High School Students—National Youth Tobacco Survey, United States, 2024 | CDC Morbidity and Mortality Weekly Report (2024)

Jamal A, Park-Lee E, Birdsey J, West A, Cornelius M, Cooper MR, Cowan H, Wang J, Sawdey MD, Cullen KA, Navon L

<https://www.cdc.gov/mmwr/volumes/73/wr/mm7341a2.htm>

Trends in Current Electronic Cigarette Use Among Youths by Age, Sex, and Race and Ethnicity | JAMA Network Open (2024)

Mattingly DT, Hart JL

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2814427>

Data Sources

Monitoring the Future | National Institute on Drug Abuse (NIDA)

<https://monitoringthefuture.org/results/data-access/>

National Electronic Injury Surveillance System (NEISS) | US Consumer Product Safety Commission

<https://www.cpsc.gov/Research--Statistics/NEISS-Injury-Data>

National Survey on Drug Use and Health | Substance Abuse and Mental Health Services Administration (SAMHSA)

<https://www.samhsa.gov/data/data-we-collect/nsduh-national-survey-drug-use-and-health>

National Youth Tobacco Survey | CDC and FDA

<https://www.fda.gov/tobacco-products/youth-and-tobacco/results-annual-national-youth-tobacco-survey>

Population Assessment of Tobacco and Health | NIDA and FDA

<https://pathstudy.nih.gov/>

Youth Risk Behavior Surveillance System | CDC

<https://yrbs-explorer.services.cdc.gov/>



Facebook:

facebook.com/childrenssafetynetwork

LinkedIn:

linkedin.com/company/childrens-safety-network

X/Twitter:

twitter.com/ChildrensSafety

YouTube:

youtube.com/@ChildrensSafetyNetwork

Newsletter:

go.edc.org/CSNNewsletter



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