

Hookah Fact Sheet

What Is Hookah?

- Hookah is a device used to smoke tobacco (called shisha or waterpipe tobacco) or other substances such as flavored tobacco products; non-nicotine, herbal shisha; or marijuana.^{1,2,3}
- A typical hookah has a head, a metal body, a water bowl, and a flexible hose with a mouthpiece that people put into their mouths to inhale tobacco smoke. Tobacco is heated with charcoal and the tobacco smoke passes through water to cool it before being inhaled.^{4,5,6,7}
- Hookah smoking typically occurs in a group setting as a social activity.^{4,6}

Who Is Using Hookah?

- Hookah smoking is most common among individuals who are between the ages of 18-24 years (6.1 percent compared to 1.9 percent for other adults) and who have at least some college education (3.2 percent compared to 1.0 percent for those with a high school diploma or less).^{8,9}
- Hookah use is also popular among teens. In 2016, the rate of hookah use among California high school students surpassed cigarette smoking at 4.8 percent compared to 4.3 percent, respectively.¹⁰

Why Are People Using Hookah?

- Perceptions
 - Some hookah users perceive hookah smoking to be less harmful and addictive than combustible cigarettes and believe that shisha delivers less nicotine. They also believe that the likelihood of nicotine addiction and adverse health effects is very low.^{1,7}
 - Some of the positive attributes of hookah smoking perceived by users include the taste, smell, relaxing effects, and the opportunity to socialize with friends.¹
 - In California, hookah smoking can occur in hookah lounges and bars that are currently exempt from California indoor smoke-free laws, as well as on patios and other outdoor spaces. This may create the illusion that hookah smoking is safer than smoking combustible cigarettes.⁸
- Social Influences
 - Hookah is appealing to youth and young adults because it is often smoked in groups and is considered a social activity.^{1,11}
 - Hookah smoking among youth most commonly occurs at a friend's house, their own house, or another family member's house.¹¹
 - Among middle school and high school students, peer influence is strongly linked to occasional hookah smoking. Students who live with a hookah smoker are more likely to be frequent hookah smokers.¹¹
- Flavors
 - Hookah is appealing to young people because the shisha comes in a variety of flavors, such as apple, peach, mint, strawberry, and cola.^{6,7}

The Dangers of Hookah Use

- Exposure to Hookah Smoke
 - In a single 60 minute hookah smoking session, smokers can inhale up to 200 times the volume of smoke than from a single cigarette.^{12,13}
 - The charcoal used to heat the tobacco can increase health risks by producing high levels of carbon monoxide, heavy metals, and cancer-causing chemicals.¹³
 - Volatile aldehydes are dangerous chemicals that are found in hookah smoke and can lead to lung disease.¹⁴
 - Non-nicotine, herbal shisha smoke also contains carbon monoxide, tar, and other dangerous chemicals that can lead to negative health effects.^{6,12}
 - Toxic chemicals and particulate matter are present in hookah lounges and indoor smoking venues, leading to hookah secondhand smoke exposure to non-users.^{15,16}
- Cardiovascular Problems
 - Hookah smoke contains many chemicals that can cause clogged arteries and heart disease.⁶
 - Hookah smoking for just 15 minutes can increase blood pressure and heart rate.¹⁷
- Cancers
 - Chemicals from hookah smoke and charcoal can lead to the development of certain cancers such as leukemia and oral, lung, and bladder cancers.^{2,6}
- Infectious diseases
 - Sharing mouthpieces while hookah smoking can spread infectious diseases like tuberculosis, herpes, influenza and hepatitis.^{2,16,18}
- Nicotine
 - Nicotine is an addictive chemical. When using hookah, very little nicotine is filtered out when the smoke passes through the water in the pipe.¹⁸ While peak nicotine levels in the blood are similar for cigarette smoking and hookah smoking, the relatively long duration of hookah smoking leads to higher levels of nicotine exposure.¹⁹
 - Adolescents are still going through critical periods of brain growth and development and are especially vulnerable to the toxic effects of nicotine. Exposure to nicotine during adolescence can harm brain development and increase susceptibility to addiction.^{20,21}
- Risk of Starting Combustible Cigarette Smoking
 - Hookah smoking is linked to increased likelihood of smoking combustible cigarettes.²²

Hookah Policy Loopholes in California

Although shisha is considered a tobacco product in California, there are still policy loopholes that expose Californians to deadly secondhand smoke.

- **Current state law allows people to smoke shisha inside some hookah lounges.**
 - Hookah lounges that meet the definition of a “retail or wholesale tobacco shop” or “private smokers’ lounge” are exempt from California’s Smoke-free Workplace

Law.²³ Indoor smoking in a hookah lounge exposes workers and patrons to deadly secondhand smoke.

- **There is no minimum age requirement to enter a hookah or smokers' lounge where people are smoking.**
 - While the minimum age of sale for tobacco products in California is 21, there is no minimum age requirement to enter a hookah lounge. Non-smokers in hookah lounges are exposed to secondhand smoke and high levels of particulate matter.^{15,16}
- **There is no age restriction for buying non-nicotine, herbal shisha or other plant products.**
 - Tobacco retailers may still sell herbal or other plant products intended for smoking to persons under the age of 21 if these products do not contain or are not made or derived from tobacco or nicotine.²⁴ Non-nicotine, herbal shisha still exposes smokers to carbon monoxide and toxins in the charcoal used to burn the shisha.
- **California's minimum age of sale for shisha and other tobacco products does not apply to active duty military personnel.**
 - The minimum age of sale for tobacco products in California, including shisha, is 21. However, the minimum age of sale for active duty military personnel is only 18, putting service members at risk of tobacco initiation and addiction at a younger age.²⁵ In California, approximately 67.1 percent of current smokers start by the age of 18.²⁶
- **Although federal law prohibits flavors in cigarettes, no similar law exists for shisha and other tobacco products.**
 - In 2009, the Family Smoking Prevention and Tobacco Control Act was signed into law and banned the sale of all flavored cigarettes with the exception of menthol in the United States. The reason for banning flavors in cigarettes was to make cigarettes less enticing to youth and young adults, but after the policy was adopted, more adolescents began using other flavored tobacco products, like hookah.²⁷

Local Policy Options

1. Restrict the sale of flavored shisha.
 - Shisha is available in a variety of fruit and candy flavors, which are very appealing to young people. State and local jurisdictions have the legal authority to restrict the sale of flavored tobacco products and should pass policies to make tobacco products less appealing to young people.²⁸
 - As of March 2018, 18 local jurisdictions in California have adopted policies that restrict the sale of flavored tobacco, including shisha. The jurisdictions are: the cities of Berkeley, Cloverdale, El Cerrito, Fairfax, Hayward, Los Gatos, Manhattan Beach, Novato, Oakland, Palo Alto, San Leandro, San Francisco,

- Sonoma, and West Hollywood; and Contra Costa County, Mono County, Santa Clara County, and Yolo County.
2. Enforce age verification for internet and other non-face-to-face shisha purchases.
 - Shisha and hookah paraphernalia can be sold online without proof that the buyer is at least 21 years of age. Enforcing age verification would ensure that vendors are not illegally selling tobacco to underage youth and young adults.
 3. Increase the age of sale for non-nicotine, herbal shisha to 21.
 - California law does not have a minimum age of sale for non-nicotine, herbal shisha. The minimum legal age of sale of 21 applies to tobacco products only, but should be extended to cover non-nicotine, herbal shisha.
 4. Remove hookah lounges/bars as an exemption of California smoke-free laws.
 - California law permits smoking inside hookah lounges that qualify as either a “retail or wholesale tobacco shop” or a “private smokers’ lounge”.²¹ Research shows that non-users are exposed to secondhand smoke and other particulate matter present in hookah cafes, bars, and lounges.
 5. Restrict entry into hookah bars and/or smokers’ lounges for anyone under the age of 21.
 - There is no state law in California that prohibits anyone under the age of 21 from entering a hookah bar or smokers’ lounge. Restricting the age of entry into these places will protect young people from hazardous chemicals and particulate matter and visual cues to start smoking hookah.

¹ Smith-Simone, S., Maziak, W., Ward, K. D., Eissenberg, T. (2008). Waterpipe tobacco smoking: Knowledge, attitudes, beliefs, and behavior in two U.S. samples. *Nicotine & Tobacco Research*, 10(2): 393–398. doi:10.1080/14622200701825023

² Kadhum, M., Sweidan, A., Jaffery, A. I., Al-Saadi, A., & Madden, B. (2015). [A Review of the Health Effects of Smoking Shisha](#). *Clinical Medicine*, 15(3): 263-266 doi: 10.7861/clinmedicine.15-3-263

³ Hammal, F., Chappell, A., Wild, T. C., Kindzierski, W., Shihadeh, A., Vanderhoek, A., . . . Finegan, B. A. (2013). ‘Herbal’ but potentially hazardous: An analysis of the constituents and smoke emissions of tobacco-free waterpipe products and the air quality in the cafés where they are served. *Tobacco Control*, 0: 1–8. doi:10.1136/tobaccocontrol-2013-051169

⁴ American Lung Association. (2007). [Tobacco policy trend alert – An emerging deadly trend: Waterpipe tobacco use](#).

⁵ Akl, E. A., Gaddam, S., Gunukula, S. K., Honeine, R., Joaude, P. A., Irani, J. (2010). The effects of waterpipe tobacco smoking on health outcomes: a systematic review. *International Journal of Epidemiology*, 39: 834–857. doi:10.1093/ije/dyq002

⁶ Centers for Disease Control and Prevention. (2016). [Hookahs](#). Fact Sheet.

⁷ California Department of Public Health, California Tobacco Control Program
[Uncovering Hookah.](#)

⁸ Smith, J. R., Edland, S. D., Novotny, T. E., Hofstetter, C. R., White, M. M., Lindsay, S. P., & Al-Delaimy, W. K. (2011). Increasing Hookah Use in California. *American Journal of Public Health, 101*(10).

⁹ California Department of Public Health, California Tobacco Control Program. Online California Adult Tobacco Survey, 2017. Sacramento, CA: California Department of Public Health; 2017.

¹⁰ California Department of Public Health, California Tobacco Control Program, *California Tobacco Facts and Figures: A Retrospective Look at 2017*. Sacramento, CA: California Department of Public Health; 2018.

¹¹ Agaku I., Odani, S., Armour, B., Glover-Kudon, R. (2018). Social Aspects of Hookah Smoking Among US Youth. *Pediatrics, 142*(2): 1-10.

¹² University of Maryland. *Hookah Myths and Truths*. Brochure.
http://www.health.umd.edu/sites/default/files/Hookah%20Brochure-%20Final_0.pdf

¹³ United States Department of Health and Human Services (2017). [The Dangers of Hookah Smoking.](#)

¹⁴ Shihadeh, A., Salman, R., Jaroudi, E., Saliba, N., Sepetdjian, E., Blank, M. D., . . . Eissenberg, T. (2012). Does switching to a tobacco-free waterpipe product reduce toxicant intake? A crossover study comparing CO, NO, PAH, volatile aldehydes, tar and nicotine yields. *Food and Chemical Toxicology, 50*(5):1494-1498. doi: 10.1016/j.fct.2012.02.041.

¹⁵ Weitzman, M., Yusufali, A. H., Bali, F., Ruzmyn Vilcassim, M. J., Gandhi, S., Peltier, . . . Gordon, T.; Effects of hookah smoking on indoor air quality in homes. *Tobacco Control, 0*: 1–6. doi:10.1136/tobaccocontrol-2016-053165

¹⁶ World Health Organization. (2005). Study Group on Tobacco Product Regulation (TobReg). [Advisory Note: Waterpipe Tobacco Smoking: Health Effects, Research Needs and Recommended Actions by Regulators.](#)

¹⁷ Azar, R. R., Frangieh, A. H., Mroué, J., Bassila, L., Kasty, M., Hage, G., & Kadri, Z. (2016). Acute effects of waterpipe smoking on blood pressure and heart rate: a real-life trial, *Inhalation Toxicology, 28*(8), 339-342, doi: 10.3109/08958378.2016.1171934

¹⁸ American Lung Association. Hookah smoking – [A growing threat to public health. Policy Brief.](#)

¹⁹ Eissenberg, T. and Shihadeh, A. (2009). Waterpipe tobacco and cigarette smoking direct comparison of toxicant exposure, *American Journal Preventive Medicine*, 37(6): 518–523. doi: 10.1016/j.amepre.2009.07.014

²⁰ The Truth Initiative (2016). [*The Truth About Hookah*](#)

²¹ US Department of Health Human Services, *The health consequences of smoking—50 years of progress: A report of the Surgeon General, in Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health*. 2014.

²² Moreno, M. A. (2015). [*Risks of Hookah Smoking*](#). Fact Sheet. *JAMA Pediatrics*, 169(2): 196. doi:10.1001/jamapediatrics.2014.2110

²³ California Labor Code, § 6404.5.

²⁴ California Business & Professions Code, § 22950.5(d).

²⁵ California Penal Code, § 308(a).

²⁶ California Department of Public Health, California Tobacco Control Program. Behavioral Risk Factor Surveillance System 2015. Sacramento, CA: California Department of Public Health; 2016.

²⁷ Courtemanche, C.J., M.K. Palmer, and M.F. Pesko. (2017). Influence of the flavored cigarette ban on adolescent tobacco use, *American Journal of Preventive Medicine*, 52(5): p. e139-e146.

²⁸ Wellington, N., *Focus on Flavors: The Authority of a State or Local Government to Restrict or Prohibit the Sale or Distribution of Flavored Tobacco Products*. 2016, California Department of Public Health, California Tobacco Control Program,: Sacramento, CA.