

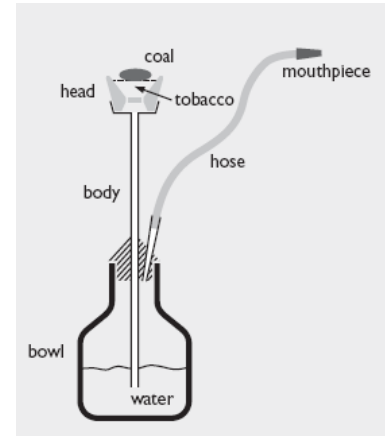
Hookah Is Not Harmless



Hookah use is especially popular among youth and young adults. Despite the different way of smoking, hookahs (also called waterpipe, shisha, narghile, argileh, hubble-bubble, goza) still use tobacco, expose users to nicotine, and increase health risks. The social aspect of hookah use attracts younger users, and the wide variety of kid-friendly hookah tobacco flavors makes it even more appealing.

How Hookahs Work

The hookah waterpipe consists of a head, body, water bowl, and hose, although they can vary in size and shape. The smoke aerosol generation process in hookahs is different than in cigarettes.¹ While the dried tobacco itself burns in a cigarette, a hookah, or waterpipe, uses an external heat source, charcoal, to devolatilize the tobacco at lower temperatures than a cigarette. Thus, the tobacco itself does not burn in hookahs, but is heated. The smoke carrying charcoal combustion particles passes through the tobacco to the water, which bubbles into a vapor that users inhale.



Source: American Lung Association

Flavored Hookah Attracts Youth Users

Like other tobacco products, there is strong evidence that flavored hookah appeals to youth and may play an important role in initiation of hookah use. Traditionally, raw tobacco was used in the hookah waterpipe, but in the 1990s, flavored hookah tobacco was introduced, leading to increased popularity among young people around the world.² According to the 2024 National Youth Tobacco Survey (NYTS), 180,000 middle and high school students are current hookah users.³

Hookah is available in a wide variety of kid-friendly flavors. One study identified over 1,800 unique flavors available online in 2020, with fruit flavors comprising over half of all available flavors.⁴ Al Fakher, one of the biggest hookah companies in the U.S., sells kid-friendly flavors like bubble gum, cola, blueberry, strawberry cream and watermelon. The government-sponsored 2013-2014 Population Assessment on Tobacco and Health (PATH) survey found that 88.7% of 12-17 year-olds who had ever smoked hookah used flavored hookah the first time they tried the product and more than three-quarters (78.9%) of youth hookah users reported that they use hookah "because they come in flavors I like."⁵ The 2023 NYTS found that 84.1% of current youth hookah users reported using a flavored product in the last month.⁶

Social Appeal of Hookah Use Among Youth and Young Adults

It is common practice for hookah to be used in social settings. In fact, according to the PATH survey, 79.6% of current youth hookah users say that they use hookah because they like socializing while using the product.⁷ Hookah bars and cafes have grown in popularity, particularly in urban areas and around college campuses.⁸ These establishments explicitly market a social, fun and relaxing environment to young adults.⁹ They often have additional appeal, offering musical performances, food, and alcohol. A 2009 review of 144 websites advertising hookah establishments found that 79% served food and 41% served alcohol.¹⁰ State and local smoke-free laws often exempt hookah bars and cafes.

Hookah Users Underestimate the Health Risks of Hookah Use

Many hookah users are unaware of its health harms. This is due in part to misleading claims on hookah packaging. Researchers who examined over 100 popular hookah products found that over half contained misleading claims, such as that the product was “tar free,” and that only 38% of analyzed products disclosed that the product contained nicotine, despite the fact that all hookah tobacco contains nicotine.¹¹ In addition, the social patterns of hookah use, which differs from that for other tobacco products, means that many hookah users do not participate in the preparation of the tobacco and therefore never come in contact with the package of tobacco mixture. This leads to a high degree of unfamiliarity among users about the contents of the mixture in the waterpipe bowl. In fact, many studies show that youth and young adults consistently underestimate the health risks of hookah, believing that it is less harmful, less addictive, and more socially acceptable than cigarette smoking.¹² For example, the 2013-2014 wave of the PATH study found that 60.6% of current hookah users aged 12-17 use hookah because they think it might be less harmful than cigarettes.¹³

Hookah Use is Linked to Serious Health Harms

According to the CDC, using a hookah to smoke tobacco poses serious health risks to smokers and others exposed to the smoke from the hookah.¹⁴ Because the flavors and the smoking technique create a more soothing (“smooth”) experience, hookah smokers can inhale more deeply and spend more time in a “hookah session,” which typically lasts for 40 to 45 minutes (three to four times longer than it takes to smoke a cigarette). While a typical cigarette requires about 20 puffs, an hour-long hookah session may involve 100 to 200 puffs¹⁵, potentially exposing the user to more smoke over a greater period of time than what occurs when smoking a regular cigarette.¹⁶

Although the smoke passes through water, this does *not* eliminate the hazardous, addictive chemicals released from the tobacco. At least 82 toxicants and carcinogens have been identified in hookah smoke, including tobacco-specific nitrosamines (TSNAs), polycyclic aromatic hydrocarbons (PAHs), and heavy metals.¹⁷ Further, the combustion of charcoal used to heat hookah tobacco may pose additional health risks, since the combustion process produces dangerous substances such as carbon monoxide, heavy metals, and other chemicals.¹⁸

Hookah smoking also delivers nicotine, the same highly addictive drug found in other tobacco products. Nicotine is an addictive drug that can have lasting damaging effects on adolescent brain development and has been linked to a variety of adverse health outcomes for the developing fetus.¹⁹ Nicotine also impacts the cardiovascular system.²⁰ Studies have found that in a typical hookah smoking session, smokers attain the up to 1.7 times the nicotine exposure and up to nine times the carbon monoxide exposure as a single cigarette.²¹ A review of the evidence indicates that hookah smoking is associated with nicotine dependence, including experiences of withdrawal and difficulty quitting, at least among some users.²² By exposing youth and young adults to addictive nicotine and the behavior of smoking, hookah use may play a role in cigarette initiation. Recent studies have associated hookah use with subsequent cigarette initiation, increased intensity of cigarette smoking, and reduced cessation success.²³ Research has also found that many youth and young adults use both hookah and cigarettes.²⁴

Research indicates that hookah smoking is linked to many of the same adverse health effects as cigarette smoking, such as lung, bladder and oral cancers and heart disease.²⁵ Other documented long-term effects include impaired pulmonary function, chronic obstructive pulmonary disease, esophageal cancer and gastric cancer.²⁶ Studies have shown that hookah smoke contains many of the same harmful components found in cigarette smoke, such as nicotine, tar and heavy metals.²⁷ As a result of exposure to the dangerous chemicals in hookah smoke, research shows that even short-term hookah use is associated with acute health effects, including increased heart rate, blood pressure, reduced pulmonary function and carbon monoxide intoxication.²⁸

Flavored Hookah Has No Spiritual or Religious Significance

While hookah has been used for centuries in many African and Asian countries, it became popular among young people worldwide in the 1990s, coinciding with the proliferation of *flavored* hookah tobacco. Unlike the use of ceremonial tobacco among American Indian populations, hookah tobacco has no ties to spiritual or religious traditions. In fact, Muslim scholars widely agree that Islam prohibits smoking. There is also growing support for policies to restrict the sale of hookah among populations with a history of higher rates of hookah use. In recognition of the health hazards posed by hookah, more than a dozen countries in African and Asia have banned the sale of hookah.²⁹ In a 2024 poll of Michigan residents of Middle Eastern and North African (MENA) descent, MENA residents expressed concerns about youth use of flavored hookah and indicated that flavors that appeal to kids should be eliminated. The poll found that nearly two-thirds (65%) of MENA residents in Michigan support a proposal that would end the sale of all flavored tobacco products, including flavored hookah tobacco. In addition, by a 3-to-1 margin, MENA residents prioritize preventing children from becoming addicted to tobacco over allowing flavored hookah to preserve culture.³⁰

Policy Solutions to Reduce Hookah Use Among Young People

In states or localities with smoke-free laws, hookah bars often receive an exemption. Some laws even allow minors in these establishments. A 2015 study found exemptions for hookah establishments in the smoke-free laws for 24 states, and loopholes that exempt establishments that receive a set percentage of sales from tobacco products in another 14 states.³¹ A review of smoke-free laws in the 100 largest US cities found that 69 of the 73 cities that prohibit cigarette smoking in bars had exemptions for hookah use.³² Removing these loopholes can reduce exposure to secondhand smoke and help to denormalize hookah use.

States and localities can also enact restrictions to limit the appeal of hookah to youth and young adults. States and localities have clear authority to restrict the sale of flavored tobacco products (or any tobacco product) to reduce tobacco use and its harms to its citizens. Over 420 localities have already passed restrictions on sales of flavored tobacco product, and many of these include hookah tobacco.

The tobacco used for hookah is taxed like pipe tobacco, at a rate lower than cigarettes in many states and at the federal level. High prices on tobacco products make them less affordable to youth and are an effective way to reduce youth tobacco use. Having hookah and other smoking tobacco available at lower prices is a public health concern as it provides cigarette smokers with an alternative lower-priced tobacco product that pose many serious health risks. It also incentivizes smokers to switch products rather than quit in response to high prices.

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³ Park-Lee, E., et al., “Tobacco product use among middle and high school students in the United States: National Youth Tobacco Survey, 2025,” *Nicotine & Tobacco Research*, published online June 23, 2026, <https://doi.org/10.1093/ntr/ntag116>.

⁴ Sutfin, EL, et al., “Waterpipe Tobacco Brands and Flavors Sold Online in the USA,” *Substance Use & Misuse*, published online June 30, 2024.

⁵ Ambrose, BK, et al., “Flavored Tobacco Product Use Among US Youth Aged 12-17 Years, 2013-2014,” *Journal of the American Medical Association*, published online October 26, 2015.

⁶ Birdsey J, et al. “Tobacco Product Use Among U.S. Middle and High School Students — National Youth Tobacco Survey, 2023.” *MMWR* 72(44):1173-1182, November 3, 2023, Supplementary Table 2: <https://stacks.cdc.gov/view/cdc/134701>.

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⁸ American Lung Association, *An Emerging Deadly Trend: Waterpipe Tobacco Use*, February 2007, http://www.lungusa2.org/embargo/slati/Trendalert_Waterpipes.pdf.

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