



Hookah

WHAT IS HOOKAH?

Hookah is a form of water pipe that is widely used throughout the world. A flavored blend of tobacco is smoked in a hookah using ignited coal as a heat source. The four primary components of hookah include:

SHISHA: The sticky blend of tobacco and other ingredients such as spices, dried fruit, molasses, honey, and artificial flavors that is smoked using a hookah pipe. Heavy metals, including nickel, chromium, lead, and arsenic are present in shisha and shisha smoke.¹

COAL: Heats the tobacco to create smoke. Burning coal creates carbon monoxide, which can be highly toxic. Multiple cases of carbon monoxide poisoning requiring emergency treatment have been identified after using hookah.^{2,3}

WATER: The large well at the base of the hookah is usually filled with water, although sometimes ice, beer, soda, or other liquid is used.¹ The water cools the smoke, making it more comfortable to inhale, which results in the smoker inhaling twice as deeply as a cigarette smoker, which causes hazardous elements in the smoke to penetrate deeper into the lungs.⁴

HOSE & MOUTHPIECE: The common practice of sharing a mouthpiece while smoking hookah in a group exposes the smokers to communicable diseases such as colds, viruses including the flu and herpes, oral bacterial infections, and tuberculosis.⁴

MISCONCEPTIONS

THE WATER FILTERS THE SMOKE, MAKING IT HEALTHIER: Users may believe that the water in the hookah pipe filters and cleans the smoke. Studies show that the toxins in hookah smoke cannot be filtered through water. Moreover, the water cools the smoke, resulting in the user inhaling a larger volume of smoke more deeply into the lungs.¹

HOOKAH SMOKING DOES NOT LEAD TO TOBACCO ADDICTION: There is actually more nicotine in hookah than in cigarettes, so the addiction potential is quite large. There is also concern that hookah can be a gateway product to cigarette smoking.¹

HOOKAH SMOKING INDUCES RELAXATION AND STRESS RELEASE: Nicotine is a stimulant and does not relieve stress, even though smokers often believe that it does. Nicotine only relieves the stress it causes due to addiction.¹



QUICK FACTS

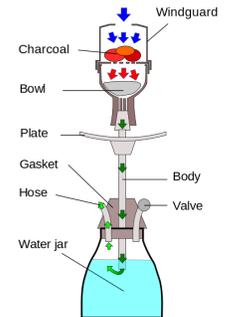
- Compared with cigarettes, hookah contains:
 - 5 times more cancer-causing agents
 - 100 times more tar
 - 4 times more nicotine
 - 11 times more carbon monoxide⁴
- An average hookah smoking session of 45-60 minutes is the same as chain smoking 15 cigarettes.⁴
- Hookah users may inhale as much smoke in one session as a cigarette smoker would inhale in 100 cigarettes (5 packs).⁸
- Hookah use has surpassed cigarette use among U.S. young adult college students.¹¹
- Hookah use grew in popularity among high school students between 2011 and 2012.¹²
- Hookah is used by individuals who would not otherwise use tobacco.⁵
- Dual use of cigarettes and hookah is more common than hookah use alone.⁶
- Among individuals who were not current smokers, those who had tried hookah were more likely to report intent to try cigarettes soon.⁷



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HOW DOES IT WORK?

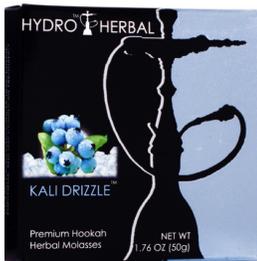
To use a hookah, tobacco is placed in the ignition chamber (bowl) of the hookah and covered with charcoal. A small pipe leads from the bowl to the water chamber at the base. When the smoker inhales through a hose connected to the water chamber, smoke is drawn down from the bowl, through the pipe, through the water chamber and out through the hose and mouthpiece where it is inhaled by the smoker.¹



CAN HOOKAH BE SAFER?

Recently there has been an emergence of products which claim to be safer than using conventional hookah. Steam stones, and tobacco-free or tar-free shisha claim to expose the user to fewer health hazards than traditional hookah, but these claims are either unsubstantiated or have been refuted.

- **STEAM STONES** are heat-treated porous materials soaked in fluid (usually glycerin, flavor, and color) and heated in hookahs where tobacco would normally be placed. When heated, the fluid creates a smoke-like vapor that is inhaled by the user. Health risks of using this product are unknown, but the user is still exposed to carbon monoxide from the burning of coal.⁹
- **TOBACCO-FREE (HERBAL) SHISHA** has been found to contain polycyclic aromatic hydrocarbons as well as high levels of heavy metals including lead, chromium, nickel, and arsenic. The toxic byproducts of burning herbal shisha are equivalent or greater to those produced from tobacco shisha.¹⁰
- Advertising shisha as **“TAR-FREE”** is a gimmick. Tar is not added to the shisha, but created when the tobacco burns.⁸



1. Griffiths, M., Ford, E. (2014). Hookah Smoking: Behaviors and Beliefs among Young Consumers in the United States. *Social Work in Public Health*. 29, 17-26. doi:10.1080/19371918.2011.619443
2. Fauci, G., Weiser, G., Steiner, I., Shavit, I. (2012). Carbon monoxide poisoning in narghile (water pipe) tobacco smokers. *Canadian Journal of Emergency Physicians*. doi: 10.2310/8000.2011.110431
3. Sivilotti, M., Abu-Laban, R. (2011). Inhaling smoke causes smoke inhalation: put that in your hookah pipe! *Canadian Journal of Emergency Physicians*. 14(1):3-4 doi: 10.2310/8000.2011.110703
4. Asotra, K. (2005). Hooked on Hookah? What you don't know can kill you. *Burning Issues: Tobacco's Hottest Topics*. Tobacco-Related Disease Research Program Newsletter 7, No 3 1-10.
5. Nuzzo, E., et al. (2012). Associations between hookah tobacco smoking knowledge and hookah smoking behavior among US college students. *Health Education Research*. doi: 10.1093/her/cys095
6. Cobb, C. Khadar, Y., Nasim, A., Eissenberg, T. (2012). A multiyear survey of waterpipe and cigarette smoking on a US University Campus. *Journal of American College Health*. 60, 7 (521).
7. Heinz, A. et al. (2013). A comprehensive examination of hookah smoking in college students: Use patterns and contexts, social norms, and attitudes, harm perception, psychological correlates and co-occurring substance use. *Addictive Behaviors* 38, 2751-2760.
8. Scientific Evidence of the Health Risks of Hookah Smoking. CESAR Fax. June 9, 2008 Vol 17, Issue 23.
9. Lee, Y., Mukherjee, A., Grana, R. (2012). Hookah steam stones: smoking vapor expands from electronic cigarettes to waterpipes. *Tobacco Control*.
10. Hammal, F., et al. (2013). 'Herbal' but potentially hazardous: an analysis of the constituents and smoke emissions of tobacco-free waterpipe products and the air quality in the cafes where they are served. *Tobacco Control*. doi: 10.1136/tobaccocontrol-2013-051169
11. Barnett, T., et al. (2013). Evidence of emerging hookah use among university students: a cross sectional comparison between hookah and cigarette use. *BMC Public Health*. doi:10.1186/1471-2458-13-302.
12. MMWR. 11/15/13. Tobacco Product Use Among Middle and High School Students.