

Secondhand Smoke: *smoke from burning tobacco products, such as cigarettes, cigars, or pipes. Smoke exhaled, or breathed out, by the person smoking.*

- **Because children have immature immune systems, larger lung surface area per body size, and faster metabolic rates, they are much more susceptible to acute health problems caused by secondhand smoke exposure.** *(CDC, 2015)*

- **Nonsmokers who are exposed to secondhand smoke are inhaling many of the same cancer-causing substances and poisons as smokers.**
- **Even brief secondhand smoke exposure can damage cells in ways that set the cancer process in motion.** *(CDC, 2016)*
- **Secondhand smoke is the third leading cause of preventable death in this country, killing 53,000 nonsmokers in the U.S. each year. For every eight smokers the tobacco industry kills, it takes one nonsmoker with them.**^{1,2}


References:

1. Glantz, S.A. & Parmley, W., "Passive Smoking and Heart Disease: Epidemiology, Physiology, and Biochemistry," *Circulation* 83(1): 1-12, January 1, 1991
2. Taylor, A., Johnson, D. & Kazemi, H., "Environmental Tobacco Smoke and Cardiovascular Disease," *Circulation* 86 (2): 699-702, August 1, 1992



Thirdhand Smoke: *is residual nicotine and other chemicals left on indoor surfaces by tobacco smoke.*

- **Particles are formed from more than 200 poisonous gases** such as cyanide, ammonia, arsenic, and polonium-210 (which is radioactive) and may cause cancer.
- **Thirdhand smoke clings to smokers' hair, clothes, furniture, drapes, walls, bedding, carpets, dust, vehicles, and other surfaces long after smoking has stopped.**
- **Nicotine remains on surfaces for days and weeks, so carcinogens continue to be created over time. These carcinogens may then be inhaled, absorbed or ingested. Children seem to be at greatest risk of being affected, as they inhale these particles from clothing, rugs, draperies, etc.**



Electronic cigarettes: *often called e-cigarettes, are battery-operated devices that heat a liquid (usually but not always containing nicotine), turning it into a vapor that can be inhaled. Using e-cigarettes is often referred to as vaping.* *(Mayo Clinic)*

- **E-cigarette aerosol is made up of high concentration of ultrafine particles, and the particle concentration is higher than in conventional tobacco cigarette smoke.** *(Fuoco, Buonanno, Stabile & Vigo, 2014)*
- **A common misperception is that e-cigarettes only release water vapor. In reality, these devices release nicotine and other chemicals in a vapor form that can expose**

both the user and those in the immediate vicinity to the contaminants. *(Journal of the American Society of Safety Engineers)*

- **In controlled laboratory conditions, vapors released directly from e-cigarettes were deposited on various surfaces and contribute to thirdhand exposure.** *(Goniewicz & Lee, 2014)*



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References/Resources:

University of Arizona Healthcare Partnership
<http://www.healthcarepartnership.org/>

University of Arizona Smoking and Tobacco Policy Number: SA-301
<http://policy.arizona.edu/ethics-and-conduct/smoking-and-tobacco-policy>