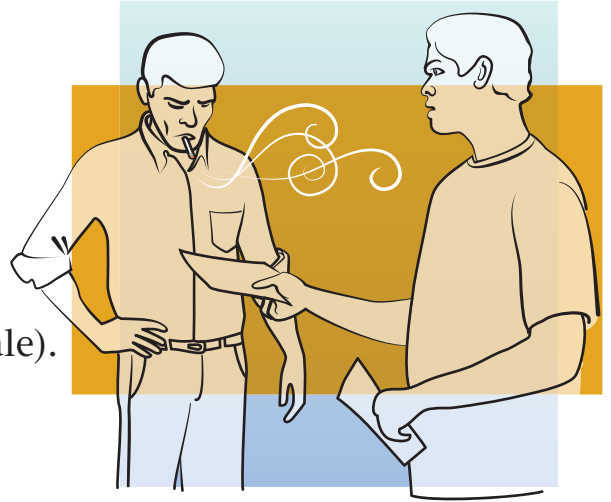


What is Second and Third-hand Smoke?

Secondhand smoke is the smoke that comes from the burning end of a cigarette, cigar or pipe. It is also the smoke that smokers breathe out (exhale). Even smoke that is exhaled contains substances that irritate the lining of



your lungs and other tissues, such as your eyes and throat. These substances cause changes that interfere with cells developing normally in your body. These changes in cells increase the risk of some cancers and other health conditions.

What is third-hand smoke?

Third-hand smoke is the invisible tobacco “dust” (or chemical) that settles in the environment and stays there even after a cigarette has been put out. Third-hand smoke contains more than 250 chemicals. We know that children exposed to third-hand smoke are at risk, because they have higher levels of **cotinine** (the by-product of nicotine) in their urine and blood. These harmful chemicals stay on your clothes, hair, rugs, curtains, toys, and coat every surface in your home and car. Babies and children can be harmed because they breathe or eat the toxins when they crawl on floors, sit on car seats, or cuddle adults, where toxins may have built up over time. Pets are also at risk because the toxins stay on their fur or feathers.

Why is second and third-hand smoke harmful?

Studies show that a person breathing second-hand smoke is exposed to the same tar, nicotine, cyanide, formaldehyde, arsenic, ammonia, methane, carbon monoxide and other cancer-causing chemicals, as the person smoking the cigarette. The smoke from the burning end of a cigarette has *more* toxins than the smoke inhaled by the smoker. Children exposed to second-hand smoke have *increased* hospital admissions for asthma, serious respiratory infections, ear problems, and are at increased risk of sudden infant death syndrome (SIDS) than those not exposed. When infants, children and nonsmoking adults inhale, ingest or touch substances containing third-hand smoke; they may place themselves at increased risk for tobacco-related health problems.

How can I protect my children and myself from second and third-hand smoke?

- If you smoke, avoid smoking around

PHYSICIANS:
CLIP
AND
COPY

children. Choose a place to smoke outside, away from where children play. Ask other adults to smoke outside. Opening windows is not enough protection against second and third-hand smoke.

- Ask visitors, babysitters, grandparents and friends not to smoke in your home or around your children. Inform them that the smoke can increase your child's risk for developing health problems (asthma, bronchitis, pneumonia, and middle ear problems).
- Do not allow smoking in your home or car, even when your children are not present.
- Choose a smoke-free day care center.
- Visit places where smoking is prohibited.

For help with quitting:

- Talk to your health care provider to find out if you are eligible to use medications or nicotine replacement products to help you quit smoking.
- Find a local smoking cessation program by visiting <http://www.quitnet.com/library/programs/>.
- Call 1-800-QUITNOW (1-800-784-8669) for telephone counseling and information about quitting in your state.
- Don't give up! Keep trying.

Authors: Tobacco Control Committee of the American Thoracic Society, Pat Folan RN, DNP, Christine Fardellone, RN, DNP, Andrea Spatarella, FNP-BC, DNP

Reviewer: Suzanne C Lareau RN, MS

References:

US Department of Health and Human Services

A Report of the Surgeon General: *How Tobacco Smoke Causes Disease: What it means to You*. 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, 2010.

Lowell, D. (2012). *Thirdhand smoke: What are the dangers to nonsmokers?* Retrieved from: <http://www.mayoclinic.com/health/third-hand-smoke/AN01985>

National Cancer Institute

<http://www.cancer.gov/cancertopics/factsheet/Tobacco/ETS>

Winicoff, J.P., Friebely, J., Tanski, S.E., Sherrod, C., Matt, G.E., Hovell, M.F., & McMillen, R. C. (2009). Beliefs about the health effects of "Third hand" smoke and home smoking bans. *American Academy of Pediatrics* 123 e74-e79. DOI: 10.1542/peds.2008-2184