

**NL Alliance for
the Control of
Tobacco**

Third-hand Smoke



Third-hand Smoke—the Facts

- Third-hand smoke is residual tobacco smoke that mixes and settles with dust, drifts down to carpeting and furniture surfaces, and makes its way deep into the porous material in paneling and drywall.
- It also lingers in the hair, skin, clothing, and fingernails of smokers.
- Studies now show that this residual smoke combines with indoor pollutants such as ozone and nitrous acid to create new compounds, many of which are carcinogenic.
- Third-hand smoke can increase the risk of cancer and could be responsible for other health problems, including asthma attacks and allergic reactions
- Third-hand smoke residue builds up on surfaces over time and resists normal cleaning. Thirdhand smoke can't be eliminated by airing out rooms, opening windows, using fans or air conditioners, or confining smoking to only certain areas of a home
- The only way to protect nonsmokers from third-hand smoke is to create a smoke-free environment, whether that's your private home or vehicle, or in public places, such as hotels and restaurants.



Scientists do know that babies, toddlers, and children are most vulnerable to the toxic effects of tobacco smoke residue. They crawl on rugs, fall asleep on carpets, and teethe on furniture, all of which could be saturated with third-hand smoke.

Third-hand Smoke consists of the same dangerous chemicals contained in second-hand smoke

A 2014 study found that mice exposed to third-hand smoke in the lab showed variations in multiple organ systems and excreted levels of a tobacco-specific carcinogen similar to that seen in children exposed to second-hand smoke. Wounds also healed more slowly and the liver was negatively impacted.

“There is still much to learn about the specific mechanisms by which cigarette smoke residues harm nonsmokers, but that there is such an effect is now clear. Children in environments where smoking is, or has been allowed, are at significant risk for suffering from multiple short-term and longer health problems, many of which may not manifest fully until later in life.”

(<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0086391>)