



## Thirdhand Smoke in Apartments and Condos: Recommendations for Property Owners and Managers

**If you're a property owner or manager, you may have had tenants report that secondhand smoke is drifting into their unit from neighbors who smoke.** This is a serious issue, as secondhand smoke is a confirmed health hazard with no safe level of exposure. Everyone should have the right to a healthy, safe unit that's free from toxic air.

Do you have questions and concerns about tenants smoking in your buildings?  
**Learn more about your options** at [no-smoke.org/at-risk-places/homes/](http://no-smoke.org/at-risk-places/homes/)

**If smoking is allowed in your buildings, you're probably familiar with the stale odor of tobacco smoke** that lingers in and around the units of people who smoke indoors, even after they have moved out. Even once a person who smokes has moved out, the carpets and drapes still smell like smoke, and walls and ceilings may have a yellowish stain from nicotine and tar. The smoke odor may also increase when heaters or air conditioning is turned on.

**Does this sound familiar? These are all indicators of thirdhand smoke, which is the residual contamination that smoke from cigarettes, cigars, and other tobacco products leaves behind.** This residue builds up on surfaces and furnishings and lingers long after smoking stops. Thirdhand smoke may seem like only an offensive, stale smell, but it also indicates the presence of tobacco toxins that harms the health of residents.

Tobacco smoke is made up of gases and particulates, including carcinogens and heavy metals, like arsenic, lead, and cyanide. Sticky, toxic substances, like nicotine and tar, cling to walls and ceilings. Gases are absorbed into carpets, draperies, and other surfaces. [Tobacco residue is present in dust and on surfaces throughout places where smoking has occurred.](#)<sup>1</sup> [This toxic sticky residue can reemit \(off-gas\) back into the air](#) and recombine to form harmful substances that remain at high levels long after smoking has stopped.<sup>2</sup>

[Nicotine in thirdhand smoke forms carcinogens](#) (cancer-causing substances), which are then inhaled, absorbed or ingested by tenants.<sup>3</sup> Exposure to thirdhand smoke poses health problems, including increasing the risk of respiratory illnesses.

Evidence of the contamination can be measured in nonsmokers' bodies. Research has found that homes of former smokers remained polluted with thirdhand smoke for months after residents quit smoking, and they were continually exposed to nicotine and a tobacco-specific carcinogen.<sup>4</sup> Nicotine was also measured in the bodies of nonsmokers who moved into homes that had been smoked in, even though the homes had been cleaned and left empty for several months before the new residents arrived.<sup>5</sup>

**Tobacco residue also results in costly property damage.** Because of thirdhand smoke contamination, apartment units and condominiums where smoking has taken place require **extensive turnover work and repairs at significant cost for you.** In addition to being toxic, even someone who smokes probably does not want to move into a unit that smells like stale smoke. Surveys show that [most tenants prefer smokefree housing.](#)<sup>6</sup>

## What can property owners and managers do?

**First, consider adopting a smokefree policy for your buildings.** A smokefree policy is legal and easy to implement, reduces tenant complaints, [saves you money](#),<sup>7</sup> [reduces fire risk](#),<sup>8</sup> and is an [amenity people are looking for](#)<sup>9</sup> in housing. **Renovating and repairing a unit when a smoking tenant moves out** can be expensive and time-consuming, so you might as well do it only one more time! Learn more at [no-smoke.org/at-risk-places/homes/](http://no-smoke.org/at-risk-places/homes/)

**Second, when converting a smoke-filled unit to a smokefree unit,** you should, at a minimum:

1. **Thoroughly wash walls and ceilings with detergent and very hot water** to remove as much nicotine and tar residue as possible. Wear gloves and use multiple clean rags to prevent simply pushing the residue around. Wash, rinse, repeat!
2. **Repaint walls with 2 or 3 coats of paint.** If walls are not thoroughly washed prior to repainting, nicotine can seep through even multiple layers of paint.
3. **Remove carpeting and padding, and wash floors** before replacing carpeting.
4. **Replace curtains/blinds/window coverings** to prevent off-gassing into the environment.
5. **Clean out ventilation ducts and replace filters.** Heating and air conditioning systems recirculate stale smoke in the unit and throughout the building.
6. [Learn more about restoring a smoke-damaged apartment](#)<sup>10</sup> from restoration experts.

While these steps do not and cannot remove **all** of the potential problems associated with a formerly smoke-filled apartment, it can reduce the thirdhand smoke residue and mitigate some of the off-gassing of tobacco toxins into the environment.

*May be reprinted with appropriate attribution to Americans for Nonsmokers' Rights, © 2017*

## REFERENCES

<sup>1</sup> Matt, G.; Quintana, P.; Hovell, M.; et al, "Households contaminated by environmental tobacco smoke: sources of infant exposures," *Tobacco Control* 13(1): 29-37, March 2004. <http://tobaccocontrol.bmj.com/content/13/1/29.full.pdf>

<sup>2</sup> Singer, B.; Hodgson, A.; Nazaroff, W., "Effect of sorption on exposures to organic gases from environmental tobacco smoke (ETS)," *Proceedings: Indoor Air 2002*, 2002. <http://eetdpubs.lbl.gov/publications/53/effect-sorption-exposures-organic-gases-environmental-tobacco-smoke-ets>

<sup>3</sup> Sleiman, M.; Gundel, L.; Pankow, J.; et al, "Formation of carcinogens indoors by surface-mediated reactions of nicotine with nitrous acid, leading to potential thirdhand smoke hazards." *Proceedings of the National Academy of Sciences*, February 8, 2010. <http://www.pnas.org/content/early/2010/02/04/0912820107.full.pdf+html?sid=a9fa8602-2b11-433d-a6cd-173e01d3e409>

<sup>4</sup> Matt G., Quintana P., Zakarian J., et al, "When smokers quit: exposure to nicotine and carcinogens persists from thirdhand smoke pollution." *Tobacco Control* 26(5): 548-556, September 2017. <https://tobaccocontrol.bmj.com/content/26/5/548>

<sup>5</sup> Matt, G.; Quintana, P.; Zakarian, J.; et al, "When smokers move out and non-smokers move in: residential thirdhand smoke pollution and exposure," *Tobacco Control* 20(1): e1, January 2011. <http://tobaccocontrol.bmj.com/content/20/1/e1>

<sup>6</sup> Licht, A.S., et al. "Attitudes, experiences, and acceptance of smoke-free policies among US multiunit housing residents," *American Journal of Public Health* 102(10): 1865–1868, October 2012. <https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2012.300717?prevSearch=%5BTitle%3A+attitudes%5D+and+%5BContrib%3A+hyland%5D&searchHistoryKey=>

<sup>7</sup> MISmokefreeApartment, "Save Money, Save Your Building," Accessed February 2017. <http://www.mismokefreeapartment.org/l10save.html>

<sup>8</sup> Live Smoke Free Minnesota. "Up in Flames: The Dangers of Smoking in Multi-Unit Housing." Accessed February 2017. <http://www.mnsmokefreehousing.org/documents/Contemplation-FireFactSheet.pdf>

<sup>9</sup> American Nonsmokers' Rights Foundation. "The Benefits of Smokefree Buildings: Why a Smokefree Policy is a Good Decision for Multiunit Housing Providers." 2014. <https://no-smoke.org/benefits-of-smokefree-buildings-fact-sheet/>

---

<sup>10</sup> Portland-Vancouver Metro Area Smokefree Housing Project. "Restoring a Smoke Damaged Apartment." September 2007. <http://www.smokefreehousingnw.org/pdf/Restoring%20a%20Smoke-Damaged%20apartment.pdf>.