Shouldn’t we be even more concerned with “thirdhand” auto exhaust and industrial pollution, which enter every home in large quantities? Why just “thirdhand” smoke?

There are indeed many pollutants that can contaminate indoor environments, and as our understanding of the adverse effects of air quality on health have increased, vehicle emissions and industrial air pollutants have received much-needed attention by policy makers and the public. There remains a lot of important work to be done to protect indoor environments from outdoor air pollution. Our focus on tobacco smoke pollutants draws attention to a source of indoor pollution that is the result of activities of the residents and visitors in indoor environments. Levels of particulate matter created indoors by tobacco smoke are much higher than typical US levels of outdoor particulate air pollution.

The term “thirdhand” was coined to describe the unique characteristics of tobacco smoke residue. Tobacco smoke contains gases and particles that stick to and become embedded in materials and objects in our homes, such carpet, walls, furniture, blankets, and toys. Thirdhand smoke is not strictly smoke, but the chemicals and particles that adhere to objects and that are released back into the air or accumulate in house dust or on surfaces.

Thirdhand smoke can linger indoors for a long time – months to years. People can be exposed to thirdhand smoke by touching contaminated surfaces (absorption through the skin), by eating contaminated objects or dust, and by breathing in air and re-suspended thirdhand smoke components. Some toxic and carcinogenic compounds in THS are unique to tobacco smoke (TSNAs). So, thirdhand smoke adds a unique mixture of toxicants to those produced by traffic and industrial pollution.

When we think about air quality in our homes, there is one important difference between thirdhand smoke from tobacco and “thirdhand” pollution from vehicle exhaust or industry: As individuals we can decide not to bring thirdhand smoke into our homes.

- **Never allow smoking in your home or car.**
- **Keep all smoking outside away from doors and windows.**

**Sources**


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