

THIRDHAND

SMOKE Resource Center

What surfaces does thirdhand smoke stick to?

Thirdhand smoke is the chemical residue from tobacco smoke. It is also called “tobacco smoke residue” or “stale tobacco smoke.” The chemicals in thirdhand smoke are toxic to humans, especially children. It can linger for years in dust and on household surfaces. It can also become embedded in carpets, furniture, clothes, and building materials. It is difficult and expensive to remove.

Although the smoke in the air seems to disappear after someone smokes, thirdhand smoke remains on surfaces, in dust, and on objects. Over time, thirdhand smoke becomes embedded into materials and can adhere to virtually any indoor surface, including walls, carpets, windows, and doors. Thirdhand smoke can also stick to commonly used objects, such as furniture, books, toys, dishes, silverware, curtains, blankets, and pillows. It can stick to skin, hair, and clothing too. In an environment where tobacco was smoked regularly for years, thirdhand smoke would likely contaminate every surface and object. This includes hidden surfaces that we may not typically see, such as the underside of tables, the inside of closets and drawers, the spongy material underneath a carpet, wallboard, and housing insulation. Some surfaces, such as drywall, carpets, and pillows, act like a sponge soaking up water, and store toxic thirdhand smoke chemicals. Just like how water evaporates from a wet sponge, these chemicals can later be released back into the air or transferred via touch, leading to harmful exposure long after tobacco was smoked. Thirdhand smoke can also be carried from one place to another, for example when furniture is moved from a home where someone smoked into another home or when a person enters a smokefree indoor space after a smoking break.



Sources

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