Thirdhand Smoke Resource Center

If nobody around me smokes, can I still be exposed to thirdhand smoke?

The Short Answer

Thirdhand smoke is the chemicals left behind when someone smokes tobacco. Thirdhand smoke is unhealthy for people and pets. It can stick around for a long time in homes and cars. It gets into your body if you inhale, swallow, or touch the chemicals. Getting rid of it is really hard and can cost a lot of money.

Since thirdhand smoke remains on surfaces and in dust for years, you can be exposed to thirdhand smoke even if no one around you smokes. Researchers have found thirdhand smoke in many places where people do not smoke, such as the homes of people who have strict no-smoking rules, non-smoking rooms at hotels that allow smoking in designated areas, used cars in which previous owners smoked, and apartments in which previous tenants smoked.

Thirdhand smoke residue has also been found in places where smoking is not allowed, such as rental cars, movie theaters, and even neonatal intensive care units. People who smoke can carry thirdhand smoke residue on their skin, clothes, hair, and breath. They then bring the residue into these smokefree places.

Enforcing a strict no-smoking rule in your car and home can help reduce thirdhand smoke exposure. Asking people who smoke to wash their hands and change into clean clothes before entering these spaces can also help reduce exposure.

The Long Answer

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. Thirdhand smoke 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.

You can still be exposed to thirdhand smoke if nobody around you smokes. After smoking stops, tobacco smoke residue can remain on surfaces and in dust for years. You can be exposed to thirdhand smoke by touching polluted surfaces, breathing off-gassed particles, and swallowing particles on polluted objects. Thirdhand smoke sticks to clothes, skin, and hair. When people exposed to tobacco smoke go into a smokefree environment

(e.g., workplace, elevator, hospital, airplane), they carry thirdhand smoke residue into that space, exposing others to the toxic residue.

Researchers have found thirdhand smoke in homes with strict no-smoking rules. The residue could have been transported there by visitors who had previously smoked and brought it inside on their skin, clothes, and hair, or the residue could have remained there from the previous residents who smoked. Researchers also found thirdhand smoke in homes years after current occupants quit smoking. Researchers have detected thirdhand smoke in non-smoking rooms at hotels that allow smoking in designated areas and inside used cars in which previous owners smoked.

Thirdhand smoke persists in environments with smoking bans that are frequented by people who smoke, including rental cars and movie theaters. Surprisingly, scientists discovered thirdhand smoke in neonatal intensive care units (NICUs) and other high-risk hospital settings. Visitors carried thirdhand smoke residue into the hospital, exposing the infants to the toxic chemicals.

People's previous behavior in an enclosed space can leave behind a toxic legacy that can expose others to thirdhand smoke even if no one around them is smoking. Enforcing strict no-smoking rules in your car and home can help reduce exposure. Asking people who smoke to wash their hands and change into clean clothes before entering these spaces can also help reduce exposure.

Do you have more questions about the toxic legacy of tobacco smoke, how it affects human health, and what we can do about it? Learn more here.

Updated March 2025

Sources:

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