

Thirdhand Smoke Resource Center



What Tobacco Products Contribute 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.

All tobacco products can leave behind a chemical residue of thirdhand smoke. These products include:

- Cigarettes, cigars, cigarillos, little cigars, and tobacco pipes
- Water pipes (hookah or shisha)
- Smokeless tobacco products (chew, spit, snuff, and snus)

In addition, e-cigarettes and vapes leave behind aerosol residue. The aerosol residue contains harmful chemicals.

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. 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.

Tobacco products are manufactured from the leaves of the tobacco plant. Some toxic chemicals in tobacco smoke occur naturally in the tobacco plant, others are added or created during the manufacturing process, and yet others form when tobacco is burned.

Cigarettes are not the only source of thirdhand smoke. Any tobacco product that is burned, including cigars, cigarillos, little cigars, tobacco pipes, and water pipes (hookah or shisha), can leave behind a toxic chemical residue of thirdhand smoke.

Even tobacco products that do not burn can make thirdhand residue, such as electronic cigarettes and vaping products. This is because e-cigarette “vapor” is not just harmless water vapor. The liquid that gets heated is made of nicotine, propylene glycol, flavor chemicals, and substances left over from the extraction of nicotine from tobacco plants.

Scientists refer to the “vapor” as aerosols, which are the tiny particles or droplets of nicotine, propylene glycol, flavor chemicals, and other toxic substances suspended in the air.

A recent study of vapor from JUUL e-cigarettes found that the aerosols build up on nearby surfaces when people vape. Thirdhand aerosols from nicotine and cannabis have been found in indoor environments after these products have been vaped. While thirdhand aerosols from vaping products may not smell like thirdhand smoke from tobacco smoke, its chemicals linger on surfaces and in dust.

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](#).

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