What surfaces does tobacco smoke stick to?

Thirdhand smoke is the chemical residue left behind by secondhand smoke that lingers for months in dust and on household surfaces. It can also become embedded in carpets, furniture, fabrics, and building materials, turning them into reservoirs of pollutants.

Tobacco smoke contains thousands of different chemicals in the form of gases and particles, microscopically small, sticky, oily, waxy droplets. After tobacco is smoked, research has shown that 70%-90% of nicotine and NNK (a tobacco-specific lung carcinogen) chemicals stay behind in indoor environments as residue, known as thirdhand smoke. Just like a sponge can soak up water, carpets, cushions, and drywall can “soak up” the chemicals from tobacco smoke. Although the smoke in the air seems to disappear after someone smoked, 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 carpets, walls, furniture, windows, and doors. It can also stick to objects we use every day, such as furniture, dishes, silverware, curtains, and pillows, as well as to our skin, hair, and clothing. In an environment where tobacco was smoked regularly for years, thirdhand smoke has contaminated every surface and every object. This includes hidden surfaces that we may not typically see, such as the underside of tables, the inside of drawers, the spongy material underneath a carpet, and the insulation in a wall. This residue can build up over time and be detected years after smoking has stopped. Like the water evaporating from a wet sponge, thirdhand smoke can be later released back into the air or picked up by touching, leading to exposure long after tobacco was smoked.

Sources


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