

WHAT IS THIRD-HAND SMOKE? May 2011

The general public has become aware of first-hand smoke (what the smoker inhales directly) and second-hand smoke (the visible smoke that lingers in a room from the burning cigarette and what the smoker exhales). However, third-hand smoke is a relatively new term that most people don't know the meaning of or haven't even heard.

Third-hand smoke refers to the cigarette byproducts that cling to smokers' hair and clothing as well as to household fabrics, carpets and surfaces. This type of smoke remains even after the secondhand smoke has cleared. These toxins are invisible and pose a health danger to children who breathe near, crawl on, play on, touch and mouth contaminated surfaces.

A smoker can't eliminate smoke exposure in their home by opening a window, using air conditioning or a fan or allowing smoking in some rooms but not others. If a person can smell smoke, they are breathing in toxins.

Third-hand smoke refers to tobacco toxins that build up over time in a space. Each cigarette that is smoked in a certain room will coat the surface; a second cigarette will coat the surface again. You can't really measure it, because it depends on the space. In a tiny space, like a car, the residue is much heavier. Smokers themselves are also contaminated, actually emitting toxins from clothing and hair. Smoker's breath may also contribute to third-hand smoke.

There are 250 poisonous toxins found in cigarette smoke. One is lead. Others include cyanide, arsenic, carcinogens and radioactive materials. The developing brains of children are susceptible to low levels of toxins. Babies and children who are closer to surfaces coated with the toxins will be exposed to greater levels than adults. Children ingest twice as much dust as grown-ups do because of faster respiration and closeness to surfaces.

Many smokers believe they are keeping their children out of harm's way by smoking when the children are out of the house or in the car with the children in the backseat with windows cracked open. While smokers and non-smokers were aware of the dangers of first-hand and second-hand smoke far fewer were aware of the risks of third-hand smoke.

(Sources: www.scientificamerican.com; www.nytimes.com; <http://en.wikipedia.org>; www.mayoclinic.com)