

New Smoke Alarm.

The residue cigarette smoke leaves behind may be just as unhealthy as secondhand smoke



THIRDHAND SMOKE

Carpets, clothes and surfaces retain residues of nicotine and other tobacco compounds that could lead to health problems like sudden infant death syndrome and asthma

SHELF LIFE

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BY ALICE PARK

HAVE YOU EVER STEPPED INTO an elevator with someone who just finished a cigarette? Or hopped into the car of a smoker or hugged a relative who recently lit up? If so, then you've been exposed to thirdhand smoke. According to a growing number of experts, the harmful compounds in tobacco residue that get embedded in clothing, hair, furniture and almost any other exposed surface may still be active enough to cause health problems, particularly in young children.

Unlike secondhand smoke, which is what nonsmokers breathe in when they're near someone who is puffing away, thirdhand smoke can be inhaled long after the cigarette has been stamped out. Scientists are just starting to study this residual smoke, but so far the evidence is sobering. Researchers at the Lawrence

Berkeley National Laboratory found that nicotine levels remained relatively constant in a room where smokers lit up regularly, suggesting that the residue didn't dissipate along with the smoke. It's also known that children living in apartment buildings who have smoking neighbors but no smokers in their own unit have double the level of cotinine—a remnant of metabolized nicotine—in their blood compared with children living in single-family dwellings without smokers.

"We have always concentrated on what is in the air," says Suzaynn Schick, a professor of occupational and environmental medicine at the University of California, San Francisco, who has studied nicotine's lasting effects. "But there may be an entirely different level of exposure via contact with surfaces and ingestion of

particles from surfaces."

Given that secondhand smoke has been shown to increase the risk of sudden infant death syndrome as well as asthma, allergies and other respiratory ailments, the challenge facing researchers is to link such health problems to the residue smoke leaves in carpets and other materials. "We don't know how bad it is, but there is enough evidence that it sets alarm bells off for people who pay attention to the health of all kids," says Dr. Susanne Tanski, a pediatrician at Dartmouth Medical School and co-author of one of the first papers, published last year

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—DR. JONATHAN WINICKOFF, HARVARD MEDICAL SCHOOL

in *Pediatrics*, to explore the concept of thirdhand smoke.

But until scientists can confirm a link, they say the current evidence surrounding thirdhand smoke should be enough to convince parents that no level of cigarette-smoke exposure is safe for their children, not to mention themselves. "We need to understand that smoke doesn't just disappear," says Dr. Jonathan Winickoff, a professor of pediatrics at Harvard Medical School and lead author of the 2009 paper. "It goes somewhere and can get into children's bodies."

So here's a bit of advice for the families of the more than 22 million children in the U.S. who are exposed to smoke in the home: it's not enough to have smokers stand outside on the porch—unless they're planning to take a shower and change their clothes before they rejoin the party in the living room. ■

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