

'Third-hand smoke' risk warning

Lingering residue from tobacco smoke which clings to upholstery, clothing and the skin releases cancer-causing agents, work in PNAS journal shows.

Berkeley scientists in the US ran lab tests and found "substantial levels" of toxins on smoke-exposed material.

They say while banishing smokers to outdoors cuts second-hand smoke, residues will follow them back inside and this "third-hand smoke" may harm.

Opponents called it a laughable term designed to frighten people unduly.

The scientists say nicotine stains on clothing, furniture and wallpaper can react with a common indoor pollutant to generate dangerous chemicals called tobacco-specific nitrosamines or TSNAs.

" The real danger is not third-hand smoke but propaganda dressed up as science "

Simon Clark of the smokers' lobby group Forest

In the tests, contaminated surface exposed to "high but reasonable" amounts of the pollutant nitrous acid - emitted by unvented gas appliances and in car exhaust - boosted levels of newly formed TSNAs 10-fold.

Substantial traces of TSNAs were also found on the inside surfaces of a truck belonging to a heavy smoker.

The researchers say third-hand smoke is an unappreciated health hazard and suggest a complete ban on smoking in homes and in vehicles to eliminate any risk.

Cancer chemicals

Toxic particles from cigarette smoke can linger on surfaces long after the cigarette has been put out, and small children are particularly susceptible because they are likely to breathe in close proximity, or even lick and suck them, they say.

Researcher Lara Gundel, of the Lawrence Berkeley National Laboratory, said: "Smoking outside is better than smoking indoors but nicotine residues will stick to a smoker's skin and clothing.

" The most important step parents can take to protect their families from the dangers of cigarette smoke is to make their homes and cars smokefree "

Ed Young of Cancer Research UK

"Those residues follow a smoker back inside and get spread everywhere. The biggest risk is to young children.

"Dermal uptake of the nicotine through a child's skin is likely to occur when the smoker returns and if nitrous acid is in the air, which it usually is, then TSNAs will be formed."

They are now doing more research to better understand what threat, if any, TSNAs pose.

Amanda Sandford of Action on Smoking and Health said: "The harmful effects of second-hand smoke are already well-established but this study adds a new dimension to the dangers associated with smoking and provides further evidence of the need to protect children, in particular, from exposure to tobacco smoke.

"The study shows that the residue of smoke on surfaces represents a potential risk for cancer but so far

we don't know how big at risk."

Simon Clark, director of the smokers' lobby group Forest, remained sceptical.

He said: "The dose makes the poison and there is no evidence that exposure to such minute levels is harmful.

"That doesn't seem to matter, though. The aim, it seems, is to generate alarm in the hope that people will be stopped from smoking or will give up.

"The real danger is not third-hand smoke but propaganda dressed up as science. Until the evidence of harm is irrefutable, scientists and campaigners should resist the urge to tell us how to live our lives."

Ed Young of Cancer Research UK said: "This is an interesting piece of research that adds the possibility of an extra level of harm from tobacco smoke.

"There is clear evidence about the harmful effects of second-hand smoke to children, especially in homes and cars.

"The most important step parents can take to protect their families from the dangers of cigarette smoke is to make their homes and cars smokefree."

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