

Cancer-causing chemicals found in blood within minutes of cigarette smoking.

Printed from <https://www.cancerquest.org/newsroom/2011/01/cancer-causing-chemicals-found-blood-within-minutes-cigarette-smoking> on 02/16/2026



Cigarette smoking has been linked to at least 18 different types of cancer. Some of the worst cancer-causing agents are called polycyclic aromatic hydrocarbons (PAH). These chemicals bind to DNA, causing mutations that can lead to cancer.

In the first study of its kind, researchers from the University of Minnesota put 'marked' chemicals into cigarettes and tracked how long it took for them to be converted into cancer-causing PAH. What they found surprised them. Levels of dangerous chemicals increased **very quickly** and peaked in the bloodstream within minutes of smoking. The authors conclude that "The results clearly demonstrate immediate negative health consequences of smoking, which should serve as a major warning to anyone contemplating initiating tobacco use."

Source

<http://pubs.acs.org/doi/abs/10.1021/tx100345x>