

Natural gas odorants associated with consistent pattern of adverse health symptoms

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Odorants are widely used in natural gas for leak detection, however, few studies have examined their potential effects on public health. A new

peer-reviewed publication in *Current Environmental Health Reports*, suggests that some commonly-used natural gas odorants may induce a range of adverse health symptoms at very low concentrations, ranging from headaches to respiratory inflammation and skin rashes.

"Our [sense of smell](#) is the first line of defense in detecting gas leaks, but few studies have examined how odorants in gas may adversely affect our health or well-being," said the review's lead author, PSE Healthy Energy Senior Scientist Drew Michanowicz. "The studies that do exist show potential risks, including evidence of both short-term self-reported health symptoms and longer-term health complications."

The literature review, "Natural Gas Odorants: A Scoping Review of Health Effects," examined 22 [research articles](#) related to the [health hazards](#), risks, and impacts of five commonly-used [natural gas](#) odorants. The researchers found that consistent symptom patterns were observed during odorant exposure in seven community-level exposure events and two occupational case reports. These findings suggest that odorants may pose health risks at much lower exposure levels than currently suspected.

"Our findings indicate that while fairly little is known about the health risks from inhaling gas, they may be underappreciated," said Jonathan Buonocore, Assistant Professor at the Boston University School of Public Health. "Exposure to these intentionally added odorant compounds could represent an environmental justice issue for people living with a gas leak in their home, or frequently exposed to gas at work."

The researchers include recommendations to improve the understanding and management of natural gas odorants, such as requiring chemical disclosure of odorants used in natural gas and establishing health-based exposure limits. More research is needed to better understand the causes of symptoms associated with odorant exposure, including effects on

potentially susceptible populations or those that may exhibit some forms of odorant sensitivity or insensitivity.

More information: Drew R. Michanowicz et al, Natural gas odorants: A scoping review of health effects, *Current Environmental Health Reports* (2023). [DOI: 10.1007/s40572-023-00403-w](https://doi.org/10.1007/s40572-023-00403-w)

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