

Invisible Threats: Is Your Home's Air Safe to Breathe?



Gas / Threat	Description	Sources	Prevention & Mitigation
Radon	A naturally occurring radioactive gas that is colorless, odorless, and tasteless, posing a significant lung cancer risk.	Produced by the decay of uranium in soil, rock, and water; enters homes through cracks in foundations or gaps in flooring.	Test for radon using kits or hire professionals; install mitigation systems to ventilate the gas out of the home.
Carbon Monoxide (CO)	A colorless, odorless gas that displaces oxygen in the blood, resulting in potentially fatal effects.	Generated by incomplete combustion of fuels such as gas, oil, wood, or charcoal; common sources include furnaces, gas stoves, and running car engines in garages.	Install CO detectors near sleeping areas; maintain fuel-burning appliances; ensure proper ventilation; avoid using generators indoors.
Nitrogen Dioxide (NO₂)	A harmful gas that irritates the respiratory system, particularly dangerous for asthma patients and long-term exposure.	Released from gas stoves, ovens, and unvented space heaters when burning fuel; often found in poorly ventilated spaces.	Use exhaust fans venting outdoors when cooking; replace unvented heaters; maintain appliances to improve fuel efficiency.
Volatile Organic Compounds (VOCs)	A group of chemicals that can cause short-term health effects like irritation and dizziness, and long-term issues including cancer.	Found in paints, varnishes, cleaning supplies, air fresheners, and new furniture; can accumulate indoors as chemical emissions.	Choose low- or zero-VOC products; ventilate when using such products; opt for certified low-emission materials like those with GREENGUARD certification.
Formaldehyde	A strong-smelling gas linked to irritation and potential cancer risks.	Found in pressed-wood products, adhesives, tobacco smoke, and some fabrics.	Use materials labeled for low formaldehyde emissions; increase ventilation; eliminate smoking indoors.
Sulfur Dioxide (SO₂)	A pungent gas that irritates the respiratory system and worsens asthma symptoms.	Released from burning sulfur-containing fossil fuels, especially from vented or poorly maintained appliances.	Ensure proper ventilation; maintain fuel-burning devices; replace old appliances with efficient models.

Secondhand Smoke	A complex mixture of toxic gases and fine particles that can lead to heart disease, lung cancer, and respiratory problems.	Produced by burning tobacco and includes harmful chemicals such as carbon monoxide and formaldehyde.	Avoid smoking indoors; eliminate indoor exposure to tobacco products; ensure clean air for nonsmokers.
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