

Health Effects of Indoor Pollutants

Indoor air pollution consists of toxic gases or particles that can harm your health. Indoor sources of toxic gases or particles can lead to indoor levels much higher than those found outdoors. A partial list of indoor air pollutant sources includes pressed wood products, aerosol sprays, solvents, cleaning agents, moth balls, un-vented or malfunctioning gas appliances and cigarettes. As there are many indoor sources of pollutants, and because people spend most of their time indoors, indoor exposures can be high and pose a significant risk to health. People may react differently to air pollutants, depending on factors such as age, preexisting medical conditions, and individual sensitivity. Immediate effects can include headache, nausea, asthma symptoms, irritation to the respiratory system or skin, fatigue, and dizziness. Long-term exposure may cause cancer, heart disease, and respiratory disease. Specific indoor pollutants, their sources and their potential health effects are shown in the linked table.

| Sources and Potential Health Effects of Indoor Air Pollutants | | |
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| Pollutant | Major Indoor Sources | Potential Health Effects* |
| Environmental Tobacco Smoke | Cigarettes, cigars, and pipes | Respiratory irritation, bronchitis and pneumonia in children, emphysema, lung cancer, and heart disease |
| Carbon Monoxide | Un-vented or malfunctioning gas appliances, wood stoves, and tobacco smoke | Headache; nausea; angina; impaired vision and mental functioning; fatal at high concentrations |
| Nitrogen Oxides | Un-vented or malfunctioning gas appliances | Eye, nose, and throat irritation; increased respiratory infections in children |
| Organic Chemicals | Aerosol sprays, solvents, glues, cleaning agents, pesticides, paints, moth repellents, air fresheners, dry cleaned clothing, and treated water | Eye, nose, and throat irritation; headaches; loss of coordination; damage to liver, kidney and brain; various types of cancer |
| Formaldehyde | Pressed wood products such as plywood and particleboard; furnishings; wallpaper; durable press fabrics | Eye, nose, and throat irritation; headache; allergic reactions; cancer |
| Respirable Particles | Cigarettes, aerosol sprays, dust particles | Eye, nose and throat irritation; increased susceptibility to respiratory infections and bronchitis; lung cancer |
| Biological Agents (Bacteria, Viruses, Fungi, Animal Dander, Dust Mites) | House dust; pets; bedding; poorly maintained air conditioners, humidifiers and dehumidifiers; wet or moist structures; furnishings | Allergic reactions; asthma; eye, nose, and throat irritation; humidifier fever, influenza, and other infectious diseases |
| Asbestos | Damaged or deteriorating insulation, fireproofing, and acoustical materials | Asbestosis, lung cancer, mesothelioma, and other cancers |
| Lead | Sanding or open-flame burning of lead paint; house dust | Nerve and brain damage, particularly in children; |

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| | | anemia; kidney damage; growth retardation |
| Radon | Soil under buildings, some earth-derived construction materials, and groundwater | Lung cancer |
| * Depends on factors such as the amount of pollutant inhaled, the duration of exposure and susceptibility of the individual exposed. | | |