

Plymouth Environmental Academy

Indoor and Outdoor Air Quality Resource Sheet

Indoor Air Quality

The American Lung Association of Minnesota Clean Air at Home website has great resources related to the impacts of air quality and sources of pollutants in the home. Poor indoor air quality can contribute to the development of infections and chronic lung diseases such as asthma. People who already have lung disease are at greater risk. American Lung Association resources teach how to identify sources of poor indoor air quality and ways to improve the air in our homes to protect health.

Dust – The more time spent indoors the more dust that is generated. This resource presents facts about dust in your home.

Household Chemicals - Household and cleaning products, including soaps, polishes, and grooming supplies, often include harmful chemicals. Choose products that do not contain or have reduced amounts of **volatile organic compounds (VOCs)**, fragrances, irritants, and flammable ingredients and avoid using air fresheners. A reliable source of information on safer cleaning can be found at the **U.S. Environmental Protection Agency Safer Choice Program**.

Secondhand Smoke - Secondhand smoke is a serious health hazard causing more than 41,000 deaths per year. It can cause a wide range of damaging health effects in children and adults, including respiratory infections and asthma.

Asbestos - Asbestos is a naturally occurring fibrous mineral that has been used in building materials, insulation and fire-retardant materials. Old and brittle asbestos products can release tiny, microscopic, fibers that can remain suspended in the air and enter your lungs when you inhale. These inhaled fibers can cause lung damage, including cancer. Because of its health risks, asbestos manufacturing and use is now regulated by the federal government.

Radon – Radon is an element that can neither be seen nor smelled. It can build up inside homes to dangerous levels. Exposure to high levels of radon can cause lung cancer. The cited resources provide information about radon, how it affects lung health, and what can be done about it. The Minnesota Department of Health has partnered with a radon detection firm to offer discounts on **radon test kits**.

Remodeling Products - Building materials, like plywood, furniture and other pressed-wood products, paints, adhesives, solvents, polishes, and carpeting often contain chemicals that give off gases and odors as the materials age. These products can give off **formaldehyde** and other **volatile organic compounds (VOCs)** into the indoor air.

Website Addresses for Indoor Air Quality Referenced Information

American Lung Association Clean Air at Home: <https://www.lung.org/clean-air/at-home>

Indoor Air Pollutants and Health: <https://www.lung.org/clean-air/at-home/indoor-air-pollutants>

Dust: <https://www.lung.org/clean-air/at-home/dust-briefing>

Household Chemicals: <https://www.lung.org/clean-air/at-home/indoor-air-pollutants/cleaning-supplies-household-chem>

Volatile Organic Compounds: <https://www.lung.org/clean-air/at-home/indoor-air-pollutants/volatile-organic-compounds>

Environmental Protection Agency Safer Choice Program: <https://www.epa.gov/saferchoice>

Secondhand Smoke: <https://www.lung.org/quit-smoking/smoking-facts/health-effects/secondhand-smoke>

Asbestos: <https://www.lung.org/clean-air/at-home/indoor-air-pollutants/asbestos>

Radon: <https://www.lung.org/clean-air/at-home/indoor-air-pollutants/radon>

Radon Test Kits: <https://radonova.com/product/rapidos-short-term-mn-resident-measurement/>

Remodeling Products: <https://www.lung.org/clean-air/at-home/indoor-air-pollutants/building-paint-products>

Formaldehyde: <https://www.lung.org/clean-air/at-home/indoor-air-pollutants/formaldehyde>

Volatile Organic Compounds (VOCs): <https://www.lung.org/clean-air/at-home/indoor-air-pollutants/volatile-organic-compounds>

Outdoor Air Quality

The American Lung Association and the [Minnesota Pollution Control Agency \(MPCA\)](#) provide resources related to outdoor air quality. Whether it comes from automobile exhaust, dirty smokestacks or a forest fire, air pollution can be a great health risk. [The American Lung Association](#) website provides links to information on common air pollutants such as ozone, particulate matter, nitrogen dioxide, sulfur dioxide, carbon monoxide, and toxic air pollutants. Links within the website discuss the nature of each air pollutant, sources, and health impacts.

The MPCA operates a network of air monitors at more than 50 locations around the state that constantly measure pollutants in the air. With this data, the agency tracks pollution trends over time and shows whether outdoor air meets air quality standards and health benchmarks. [Air Quality Index](#), or AQI, is the system used to warn the public when air pollution is dangerous. The AQI tracks ozone (smog) and particle pollution (tiny particles from ash, power plants and factories, vehicle exhaust, soil dust, pollen, and other pollution), as well as four other widespread air pollutants. Media and websites report AQI levels year-round. The MPCA publishes the [Air Quality Index forecast](#) on their website. You can sign up on the MPCA website to receive [air quality alert notifications](#). Keeping track of the current air quality information can help you take steps to protect against unhealthy levels of air pollution.

The Lung Association provides [tips for protecting yourself from air pollution](#) and has published [key findings for the State of the Air Report for 2023](#) which provides trends about air quality in states and cities.

The MPCA and the Minnesota Department of Health (MDH) have several reports related to air quality. [The Air We Breathe](#) is a 2021 report to the Minnesota legislature of the air quality in the state. The [Life and Breath Report](#) is a two-part MPCA report that examines the seven-county Twin Cities metro area as well as Duluth, Rochester, and St. Cloud.

Website Addresses for Outdoor Air Quality Referenced Information

Minnesota Pollution Control Agency: <https://www.pca.state.mn.us/air-water-land-climate/air-quality>

American Lung Association What Makes Outdoor Air Unhealthy: <https://www.lung.org/clean-air/outdoors/what-makes-air-unhealthy>

Air Quality Index: <https://www.lung.org/clean-air/outdoors/air-quality-index>

Air Quality Forecast: <https://www.pca.state.mn.us/air-water-land-climate/air-quality-forecast>

Air Quality Alert Notifications: <http://www.enviroflash.info/signup.cfm>

Tips to Protect Yourself from Air Pollution: <https://www.lung.org/clean-air/outdoors/10-tips-to-protect-yourself>

Key Findings for the State of the Air Report for 2023: <https://www.lung.org/research/sota/key-findings>

Life and Breath Report: <https://www.pca.state.mn.us/air-water-land-climate/life-and-breath-report>