



13 common sources of indoor air pollution

The Environmental Protection Agency (EPA) estimates that our indoor air is nearly 5x more polluted than outdoor air. Some homes may even have 100x more pollution.

Here are thirteen common sources of indoor air pollution:

1. Chlorine bleach

- Chlorine by-products like chloramines and trihalomethanes are formed when chlorine reacts with organic matter from humans and pets like skin, hair, and bacteria.
- Inhaling these chemicals can irritate and cause damages to the respiratory system.

2. Household cleaning chemicals, paints and solvents

- These products contain volatile organic compounds (VOCs).
- VOCs can trigger 'sick building syndrome' symptoms such as headaches, skin and throat irritation when people are exposed to them on a regular basis.

3. Synthetic fragrances, perfumes and deodorizers

- Substances used in fragrances, perfumes and deodorizers are largely unregulated.
- Some of the highly volatile and semi-volatile chemicals used have been found to be toxic, and can cause skin irritation, allergic reactions, central nervous system disorders, reproductive disorders, birth defects, and cancer.

4. Dry cleaned clothes

- These usually contain trichloroethylene and perchloroethylene -- highly toxic substances that are known to cause cancer.

5. Tobacco smoke

- Second hand smoke contains 200 known poisons and 43 carcinogens.

6. Biological pollutants

- Mould, bacteria, viruses, pollen, and dust mites can cause diseases, trigger hay fever or induce asthma in adults and children.

7. Pet dander

- Hairs, saliva and skin flakes from animals can also be sources of respiratory irritants.

8. Carpets and upholstery

- Home soft furnishings often use formaldehyde as permanent adhesive - a colourless gas with a characteristic pungent smell.
- Formaldehyde is classified as a known human carcinogen by the World Health Organization.

9. Building and decorating materials

- Volatile organic gases are released by materials, such as paint, lacquer, glue and plywood.
- Toxic VOCs (volatile organic compounds) can be emitted by building materials years after installation.

10. Candles

- A study done by the South Carolina State University in the U.S. found that candles made of paraffin wax release toxic chemicals such as toluene and benzene that can quickly build up to unhealthy level in enclosed areas.
- During combustion, all candles release some carbon particles (soot) that become airborne and can lead to respiratory problems, even penetrating your bloodstream through your lungs.

11. Office and craft materials

- Minute particles and gases from copiers, laser printers, correction fluid, graphics and craft materials can also be a source of ultra-fine particles and VOCs that can penetrate deep into the lungs.

12. Combustion pollutants

- These are gases or particles that are emitted by unvented or poorly vented fuel-burning appliances such as a fireplace, heater, wood or gas stove, water heater and dryer.

- Some of the hazardous gases that may be produced include nitrogen dioxide and carbon monoxide.

13. External pollution

- Pollution from vehicle exhausts and industry can enter a building from outside, especially in built-up areas.

Can Air Purifiers Help?



While you can and should take steps to reduce many of these pollutants in the home, you can also employ the latest technology to reduce those which remain. While traditional air purifiers have little effect (find out why [here](#)), the latest air purification technology from [Airora](#) really can improve the air quality in your home or office.