What causes Indoor Air Pollution, and what are the health effects?

Immediately after exposure, indoor air pollutants can cause itchy eyes, sore throat, headaches, dizziness, and fatigue. These effects are usually treatable. In the long term, though, indoor air pollutants can lead to respiratory diseases, heart disease, and cancer. These pollutants may also worsen conditions that you or your family members already suffer from, including asthma and COPD. In 2013, asthma exacerbations due to any cause (i.e. not only indoor air pollution) led to 1.8 million emergency room visits, 440,000 hospitalizations, and 3,600 deaths.

Common sources of air pollution in the home are:
How to Prevent Indoor Air Pollution In Your Home

Here are some steps that you can take to protect your family from indoor air pollutants:

- Adopt a smoke-free home: no smoking cigarettes inside, and no wood-burning fires indoors
- Install carbon monoxide detectors near bedrooms, and periodically replace the detectors’ batteries
- Vacuum carpets often to remove allergens that may be present
- Test your home for radon gas
- Ensure that gas appliances are professionally installed, vent to the outside, and checked annually
- Ventilate bathrooms, kitchens, and basements to prevent mold caused by moisture and humidity
- Never run cars or lawnmowers inside the garage or anywhere near windows or doors

What To Do If You Find Indoor Air Pollution In Your Home

Three of the best ways to prevent harm from indoor air pollution include: to be able to notice when family members’ might be experiencing symptoms from exposure, to keep a lookout for potential sources of indoor air problems, and to check your home for possible problems with ventilation.

If You or Someone In Your Household Suffers Negative Health Effects

If you notice changes in health (especially respiratory issues, headaches, dizziness, or irritation of the nose, eyes, or throat) shortly after moving into a new home or apartment, after remodeling or refurnishing, or after treating your home with pesticides, then your symptoms might be due to indoor air pollution.

Take Action:
Contact your doctor, the Orange County Health Department, or a board-certified allergist to see if your symptoms could be caused by indoor air pollution.

If Your Home Has Ventilation Issues

If you notice moisture condensation on windows or walls, smelly or stuffy air, dirty central heating and air cooling equipment, or areas where books, shoes, or other items become moldy, your home may not have adequate ventilation.

Take Action: If you notice mold or other ventilation issues, contact the Environmental Protection Agency for additional information and instructions on next steps. If you rent your home, do not hesitate to contact your landlord; they are required to fix these sorts of ventilation problems. The Orange County Health Department can help if your landlord refuses to make necessary repairs.
If You Find Potential Sources of Indoor Air Pollution

The federal government recommends that everyone measure the radon levels in their home. If radon levels are above 4 pCi/L, you need to take action to reduce these radon levels. For other pollutants, you should only take action if you have suffered the health effects or noticed ventilation issues as described above.

As you can see in the map, Orange County has historically had high levels of radon measured in homes (as indicated by the dark pink color). This means it is especially important to make sure that radon levels are not too high in your house if you live in Orange County. Radon can also be present in your tap water, especially if your water comes from a groundwater source. At certain times, especially during baths or showers, this radon in your water can move into the air and put you and those you live with at risk.

**Take Action:** Contact the North Carolina Radon Protection Program to order a radon detection kit. It is best to use this kit right after shower water has been running, as you might have elevated levels of radon in your water, too. Radon is the only indoor air pollutant that the federal government recommends that everyone test for. However, if you have concerns about other pollutants and have been having symptoms such as those listed above, contact the Environmental Protection Agency for additional information and instructions on what steps to take.

**For More Information**

**Orange County Health Department.** [http://www.orangecountync.gov/departments/health](http://www.orangecountync.gov/departments/health) Environmental Health (919) 245-2360, 131 W Margaret Ln, Hillsborough, NC 27278

**Orange County Healthy Homes - Home Assessment for Children with Asthma** (requires a referral from a physician or a school nurse). [http://www.orangecountync.gov/departments/health/healthy_homes.php](http://www.orangecountync.gov/departments/health/healthy_homes.php) 919-245-2424, or contact Coby Jansen Austin at caustin@orangecountync.gov

**North Carolina Radon Protection Program.** [http://www.ncradon.org](http://www.ncradon.org) Phillip Gibson, (828) 712-0972, 1645 Mail Service Center, Raleigh, NC 27699

**Environmental Protection Agency.** General Indoor Air Quality Hotline (IAQINFO): 1-800-438-4318, Region 4 Southeast Indoor Air Representative Henry Slack, slack.henry@epa.gov
References


