



Air Quality and Health

Pollution Avoidance and Prevention

ISSUE: Exercising or biking in polluted air.

Prevention:

- Check [AirNow.gov](https://www.airnow.gov) online for air quality.
- Plan exercise for early morning when pollutants are generally at the lowest levels. Note: certain geographic areas have wintertime inversions where smog accumulates overnight and burns off during the day, so early evening is the best time to exercise.
- Use commercial face masks with appropriate filters, such as for particulate matter or harmful fumes.
- People with pre-existing conditions should limit outdoor time on poor-quality air days.

ISSUE: Inhaling fumes from...

Yard work using gas-powered equipment such as leaf blowers, lawn mowers, trimmers, and chainsaws. Paints, solvents, pesticides, and diesel motors also produce harmful fumes.

Prevention:

- Use electric or human-powered equipment when possible.
- Use face masks with appropriate filters (commercial filters are available for various toxins, such as HEPA filters for particulates and activated charcoal for volatile fumes).
- Use low VOC (volatile organic chemical) paints, stains, and solvents if available.
- Eliminate environments that attract pests, and use natural deterrents to reduce pesticide use.

ISSUE: Vapor-emitting materials in the home.

Many volatile organic chemicals (VOCs) like formaldehyde are released from vinyl, particle board, paint, stains, plastic furniture, cabinetry, carpeting, plastic shower curtains, flooring, printers, and copiers.

Prevention:

- Choose untreated, naturally finished, handmade wood and natural fiber products when possible. And choose flooring labeled as “low VOC.”
- Avoid placing printers or copiers near work areas.
- Reduce plastics and carpets in the home when possible, and opt for non-treated wood or tile. This also helps reduce dust mites, dirt, and the use of chemical carpet cleaners.
- Avoid plug-in air fresheners as they emit formaldehyde.
- Also, avoid the use of mothballs or air deodorizers that contain naphthalene.

ISSUE: Fumes from personal care and cleaning products.

These include, perfumes, fragrances, air fresheners, scented lotions, hair spray, hair dye, perm treatments, stain removers, and bleaches.

Prevention:

- Choose botanically-based (plant-sourced) products free of added fragrances, dyes, colors, and preservatives.
- Use the [EWG.org/skindeep](https://www.ewg.org/skindeep) Cosmetic database, to search for environmentally safe personal products.

Adapted with permission from Nathan Daley, MD, MPH, “AIR: A Guide to Air Quality & Health”, ecoholos.org

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ISSUE: Smoke from fireplaces and candles.

Prevention:

- Ensure proper operation and maintenance of fireplaces. Be sure firewood is completely dry before burning.
- Use, maintain, and regularly test smoke detectors and carbon monoxide detectors.

ISSUE: Radon

A colorless and odorless gas that can enter any building through cracks in the foundations or construction seams. It is produced by the decay of naturally occurring uranium in soil and water and is associated with lung cancer. Higher radon levels increase risk of lung cancer.

Prevention:

- Use commercial kits to check for radon, even in new construction. The EPA recommends taking steps to mitigate (reduce or remove source) for any levels above 4 picocuries/L.

ISSUE: Molds Spores

They can grow in any wet or damp area and reproduce by means of tiny spores that float through the air. Allergic reactions range from sneezing to serious asthma attacks. Mold can also cause inflammation in the airways and eyes of non-allergic people.

Prevention:

- Inspect for mold growth in bathrooms, around water heaters, around windows, and in attic spaces and basements. Mold can grow in unexpected places, such as behind wallpaper, and comes in many colors, including white, black, red, yellow, and green.
- Use a dehumidifier for humid environments. the ideal humidity for best air quality is below 50%.

- If a humidifier is used, inspect and clean it regularly.
- Inspect and clean home heating system ductwork regularly.

ISSUE: Pollution and fumes entering your vehicle when driving.

Prevention:

- Use the recirculation button on your air conditioning controls when in heavy traffic. This dramatically reduces the amount of toxins entering your car. When not needed, turn it off to allow fresh air to enter.
- Consider carpooling, biking, walking, or public transportation when possible.

POLLUTION MITIGATION:

Air Filter Recommendations

Choose: a pleated HEPA (High-Efficiency Particulate Air) filter, which is the most efficient in removing fine particulates from indoor air. These are available as whole-house filters as well as in smaller mobile units.

Avoid: Ozone generators, ionizers, and electrostatic filters all of these can produce unwanted ground-level ozone, which is harmful to health.

Other Consumer Resources

US Environmental Protection Agency (EPA)

- Learn more about air pollution:
[epa.gov/environmental-topics/air-topics](https://www.epa.gov/environmental-topics/air-topics)
- Indoor Air Quality (IAQ):
[epa.gov/indoor-air-quality-iaq](https://www.epa.gov/indoor-air-quality-iaq)

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