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The Indoor Air Quality Epidemic and 6 Natural Solutions

By [Annie Price, CHHC](#)

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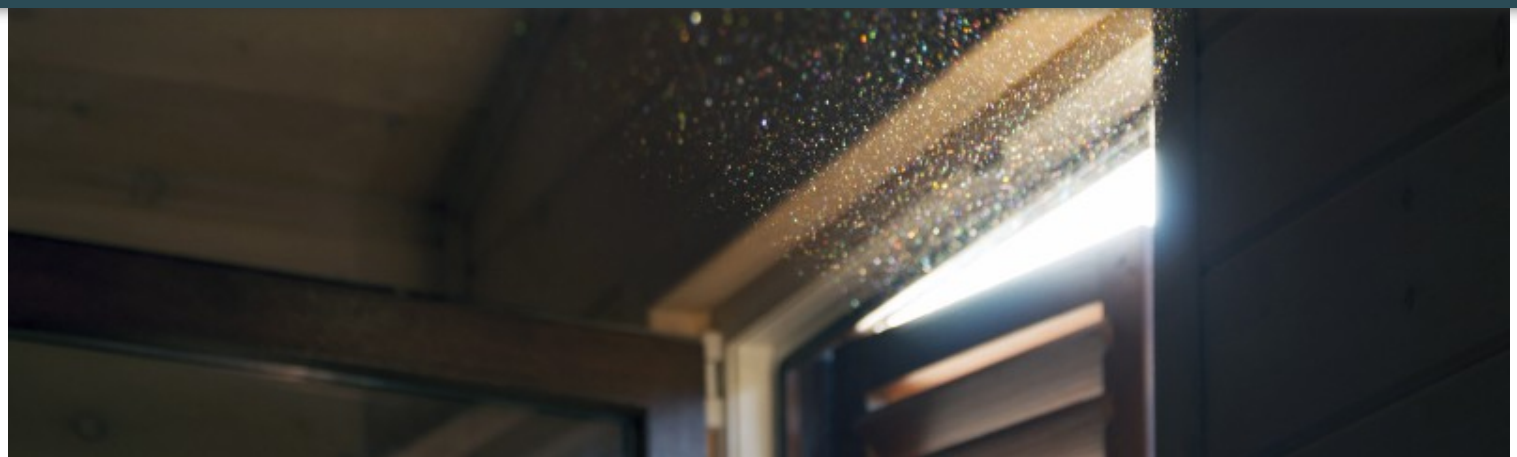
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Do you ever think about the quality of your indoor air? Indoor air quality is an often forgotten aspect of our lives that can seriously impact our health. Indoor air pollutants can cause a wide range of health problems including

eye, nose, and throat irritation or as serious as respiratory diseases, heart disease and cancer.

According to the EPA, our indoor environment is two to five times more toxic than our outdoor environment and on average Americans are spending about 90 percent of their lives indoors! (1)

I'm about to share some scary yet very helpful indoor air quality facts plus natural ways to start improving the the air inside your home and office today!

Sources of Indoor Air Pollution

There are many indoor air pollution sources. Inadequate ventilation is a primary cause of indoor air pollution and is why pollutants rise in homes during the winter. In highly urbanized and industrial areas, lack of air conditioning and high levels of humidity can increase concentrations of pollutants inside.

Other sources include gases from cooking and heating, chemicals from candles and household cleansers, mold and mildew and a host of toxins from building materials. Here are some of the top indoor air pollutants: (2)

Radon

Radon is a noxious gas that arises from the soil and bedrock beneath homes and may be in building materials. It may contain radium or uranium.

Radon exposure is the No. 1 cause of lung cancer in nonsmokers and the second-leading cause of the development of lung cancer overall. Overall, radon causes around 21,000 lung cancer deaths each year according to the EPA. (3)

Before buying a home, it's always a good idea to conduct a home air quality test, which includes testing for radon levels. Air quality testing can cost a little extra when you get a home inspection, but it's totally worth it.

And beware of the dangers of fracking. Johns Hopkins researchers found that Marcellus shale drilling in Pennsylvania changes the geology in a way that promotes more radioactive radon seepage into homes.

Tobacco smoke

Tobacco smoke contains thousands of chemicals and at least 70 of those chemicals are known to cause cancer. It's pretty well-known these days that smoking tobacco is a deadly habit, but some people still underestimate how bad secondhand smoke can be. Children are especially sensitive to secondhand smoke, which can trigger asthma and other respiratory health problems. According to the CDC, about 2.5 million nonsmokers have died from health problems caused by exposure to secondhand smoke since 1964. (4)

Mold

Mold (including black mold), mildew and viruses thrive indoors and absolutely must be treated. In the event of mold in your home, call in professionals who use green methods to take care of the problem. This is a serious problem and may even require you to move.

Cooking and Heating

Poorly ventilated or maladjusted coal, gas, kerosene, oil or wood sources of cooking and heating give off carbon monoxide, nitrogen dioxide and many other chemicals and gases.

Carbon monoxide disrupts oxygen levels and cause many symptoms. Research has shown that it causes direct damage to the heart and high levels lead to death. (5)

Nitrogen dioxide can be a source of indoor air pollution that originates from unvented combustion appliances (like a gas stove), appliances that are vented but had a defective installation, kerosene heaters, and tobacco smoke. Nitrogen dioxide can irritate the eyes, nose, throat, and respiratory tract. Continued exposure to high nitrogen dioxide levels can lead to the development of acute or chronic bronchitis. (6)

Household Products

It's estimated that the average home contains about 63 synthetic chemicals for a total of about 10 gallons of hazardous material inside of just one home! (7)

Indoor use of pesticides, cleansers, paints and varnishes and air fresheners (including candles and incense) distribute toxins throughout the home. Many cleansers contain ethylene-based glycol ethers and terpenes. These are toxic ingredients that can be found in indoor air that are linked with allergies and asthma. (8)

Furnishings and Paint

The foam in your furniture and your carpets may be emitting many harmful chemicals continuously. VOCs are the volatile organic chemicals that are found in carpets and the glue that hold them in place. VOCs exist in levels 2 to 5 times higher indoors than out. Volatile organic compounds are linked to cancer and heart and lung disease. VOCs can also be found in paint. (9)

Synthetic air fresheners emit volatile organic compounds (VOCs) continuously. Some contain p-Dichlorobenzene (PDCB), a chlorinated VOC and a toxin commonly found in mothballs as well as pest repellants. Studies show that estimated cancer risks from PDCB exposure at high concentrations surpass the risk associated with most other VOCs. (10)

Formaldehyde and PCB's are some more toxic compounds that are emitted from many household products such as wire coatings, adhesives, sealants and wood finishes. It is also found in many permanent-press fabrics. Breathing in formaldehyde can make you feel sick and cause symptoms such as a sore throat, cough, nosebleed and scratchy eyes. It's also known to cause cancer in high amounts, particularly cancer of the nose and throat. Firsthand and secondhand smoke are other sources of formaldehyde exposure. (11)

Flame retardants contain polybrominated diphenyl ethers or PBDEs. PBDEs have a variety of negative health effects, and worse, they stockpile in the body. Flame retardants are used in computer and TV casings, circuitry, mattresses and upholstery.

PDBEs are also found in treated plastics and fabrics and are released in dust particles and gases. Their levels are increasing at alarming levels in people and affect animals all over the globe. Research demonstrates that in mice, PDBEs negatively affect behavior, learning and memory. (12)

Perfluorinated acids (PFAs) are chemicals that comprise non-stick and stain-resistant coatings in many products such as cookware. Some human studies have revealed that PFAs can decrease fertility in women, raise cholesterol levels, affect the growth of children, cause hormone imbalances, and may even raise cancer risk. (13)

Building Materials

Asbestos is a scary substance that still lingers in the insulation, paints and floor tiles of many homes. It has been known to cause many serious health issues including lung cancer, asbestosis, pleural disease and mesothelioma. (14)

Formaldehyde is found in pressed wood that is used for shelving and furniture. The largest source of formaldehyde in the home is the resinous glue that holds these wood particles together.

Health Effects of Indoor Toxins

In the short term, indoor air pollution can cause irritated or dry mucous membranes in the eyes, nose, respiratory tract and throat. It may also cause dizziness, fatigue, fever, forgetfulness, headaches, irritability, lethargy and nausea.

Often, the health effects of indoor air pollution are attributed to colds and flu but they can build into more serious health concerns like asthma, hypersensitivity pneumonitis and Legionnaire's disease. (15)

Researchers have found that childhood diagnoses of allergies, autism, Asperger's and Tourette's syndrome are linked to indoor pollutants such as dust, phthalates, PVC flooring and secondhand smoke. Phthalate exposure early in development has specifically been linked to autistic spectrum disorders. (16, 17)

Other health effects arise over long-term exposure and are harder to link back to pollutants. Multiple chemical sensitivity or MCS is on the rise. Also known as environmental illness or multiple allergy syndrome, this heightened immune reaction is debilitating.

Symptoms of MCS include: (18)

- Burning eyes
- Breathing problems
- Cough
- Changes to heart rhythm
- Chest pain
- Confusion
- Congestion and other sinus trouble
- Diarrhea, bloating and/or gas
- Digestive problems
- Dizziness
- Fatigue
- Headache

- Itching
- Memory problems
- Mood changes
- Muscle and joint pain
- Nausea
- Poor concentration
- Rash
- Sensitivity to light and noise
- Sleep issues
- Sneezing
- Sore throat
- Trouble concentrating

If you're wondering how to test air quality, there are a number of options including radon tests kits as well as mold and allergen test kits available in stores and online. Another important home air quality test that should be installed in all homes is a carbon monoxide detector.

If you're concerned about indoor air quality, you can always have a professional conduct indoor air quality testing. These days there also portable air quality test devices/monitors that can detect a wide range of volatile organic compounds (such as formaldehyde) and dangerous gases like carbon monoxide.

6 Natural Solutions for Indoor Air Pollution

How can you improve indoor air quality? Thankfully, there are a lot of effective yet natural ways to improve indoor air quality.

1. Eliminate the Source

Adjust gas stoves and other cooking and heating appliances to decrease emissions. Get rid of any sources of dangerous synthetic scents in your home. They are absolutely toxic and are such a huge contributor to indoor air pollution. These days, you have to be so careful because so many things are being scented with synthetic fragrances from dryer sheets to candles to garbage bags.

Make sure you are buying unscented or *truly* naturally scented items. There is a new marketing gimmick these days – products are saying “contains essential oils.” Essential oils are a great natural scent option, but they need to be the only thing scenting the product or else they’re just included in addition to synthetic harmful fragrances.

Always make sure to clean air conditioners, dehumidifiers and humidifiers regularly so they do not become devices that are contributing to poor indoor air quality. Cleaning your air ducts and furnace filters regularly is another important part of keeping your indoor air quality optimal. Also, never idle a car in an attached garage because the exhaust can travel into the home.

It’s recommended to test your home for radon every five years and always to check for radon buying a home and after major renovations.. Look into your state radon program. Some states provide free or discounted test kits to the public. If elevated levels are found then you can hire a professional to address your radon issues.

2. Ventilate Regularly

The American Lung Association recommends that you eliminate and then ventilate. Letting fresh air into your home on a regular basis is an easy, inexpensive way to actually dilute indoor air pollutants. According to the American Lung Association, “Proper ventilation keeps the air fresh and

healthy indoors. Like the lungs, homes need to be able to breathe to make sure that fresh air comes in and dirty air goes out. Air indoors can build up high levels of moisture, odors, gases, dust, and other air pollutants.” (19)

Most heating and cooling systems do not bring fresh outdoor air in. Open the windows and doors (even in the winter) to bring in fresh air. Bathroom and kitchen exhaust fans can also help to reduce indoor contaminants as well.

3. Purify Air Naturally

To improve indoor air quality, make sure to choose natural cleaning products in your home or save a bundle by making your own: baking soda, citrus, essential oils and vinegar have a host of naturally antiseptic properties. My [Homemade Melaleuca Lemon Household Cleaner](#) is a great option that is natural and effective but will not pollute your indoor air.

You can also make your own air freshener from water and essential oils or simply simmer cinnamon, cloves and/or other herbs on the stove top. Baking soda and vinegar are also natural odor-removers.

If you're addicted to candles, avoid petroleum-based ones such as gel and paraffin. Instead, opt for 100 percent beeswax candles with cotton wicks. [Beeswax](#) candles are said to clean the air by emitting negative ions. (20)

Washing your bedding frequently in very hot water is another helpful tip for reducing indoor allergens and pollutants. Try your best to buy organic cotton products. Cotton is the one of the most sprayed crops in terms of pesticides.

4. Check Your Products

Not only are healthy home products key, but for the sake of indoor air quality you also want to be choosing healthy personal care products. Commonly used beauty products such as hair sprays and mousses can

be yet more items currently poisoning the air you're breathing indoors.

According to David Rosenstreich, M.D., the director of the division of allergy and immunology at New York's Montefiore, "We live in a highly chemically infused environment where people use tons of products. Just because it's on the supermarket shelves doesn't mean it's safe." (21)

Check out your health and beauty products at the [Environmental Working Group's Skindeep site](#). You can find the most and least toxin-laden cosmetics and skin-care products here and check out your favorites.

Also make sure to avoid petroleum-based laundry detergents, bleach and dryer sheets. [Baking soda](#) and vinegar can provide a cheap and effective boost to detergents.

5. Thoughtful Furnishing

Avoid furniture, rugs and other interior aspects of your home that contain harmful indoor air pollutants such as fire retardants. Opt for hardwood floors when you can. Throw rugs are great because you can easily wash them. Don't forget about your mattress, a necessity that is commonly loaded with toxic chemicals. I recommend checking out my article [Organic Mattresses and How to Pick the Healthiest Bed](#).

6. Helpful Houseplants

When you're looking for indoor air pollution solutions, don't forget about bringing some nature indoors! I'm talking about houseplants, a great natural and effective way to remove pollutants from the home.

Some of the [best houseplants that remove pollution](#) include:

- Bromeliad
- Dracaena
- Spider plant
- Jade plant

For more helpful tips, check out this indoor air quality pdf created by the EPA, [Care For Your Air: A Guide to Indoor Air Quality](#).

Choosing an Air Purifier

Air purifiers or air cleaners are another way to reduce indoor air pollutants. Ionizing air cleaners have vast differences in effectiveness depending upon their manufacturing processes. When it comes to choosing an air purifier that actually works (many are useless), you unfortunately will have to spend a bit of money, but indoor air quality products such as air purifiers can be a really worthwhile investment in your health.

Option 1: Intellipure

My top choice for air purifiers right now is the [Intellipure Ultrafine 468](#), a multistage air purification system designed for medium-to-large living spaces.

According to the Intellipure website, features of the Ultrafine 468 include:

- Proven to be 40 times more efficient than HEPA filters
- Removes 99.99 percent of harmful viruses, fungi molds, and bacteria, down to .007 micron in size
- Currently utilized in hospitals, medical clean rooms, government buildings and military applications
- The quietest air purifier of its kind, with highest CFM per decibel level of noise in its category
- Highest-quality EC motor resulting in 50 percent less operating cost
- Incredibly energy efficient, using only 5 watts per hour when on low

According to Vinny Lobdell Jr., founder and CEO of Intellipure, “The Intellipure system comes from five years of research and development and a United States government grant focused on germ and biological

warfare. Every single unit is individually certified and tested to guarantee 40 times higher efficiency than HEPA.”

More compact and less expensive than the Ultrafine 468 is the Intellipure Compact air purifier. It uses the same advanced, award-winning and patented DFS technology.

Option 2: IQAir

Another great option is the the IQAir HealthPro® Series of a compact stand-alone air purifiers. Of this series that has three options, the HealthPro® Plus is the top choice.

According to the IQAir website, features of the HealthPro® Plus include:

- More top reviews and awards than any other air purifier
- 32 percent less sound across all fan speeds
- Designed to deliver the purest air possible with four stages of superior filtration and 320 degree air flow
- 10 year limited warranty

IQAir also makes air purifying systems for an entire home.

Final Thoughts

- There are many substances that may be polluting your indoor air at this very moment including radon, household cleaners, beauty products, furniture materials, and more.
- Secondhand smoke is a common indoor air pollutant this is especially devastating to the health of children.
- Both first and secondhand smoke, radon and carbon monoxide are examples of air pollution that can be deadly.
- Radon and carbon monoxide are two indoor air pollutants that you can test for in your home.

- Thankfully, there are a lot of natural yet highly effective ways to improve indoor air quality such as simply ventilating your home on a regular basis.
- We should all keep our indoor air quality standards high for the sake of our health and the health of our loved ones, especially since we spend so much of our lives indoors.
- A truly effective air purifier isn't cheap, but it is a smart investment for you and your family!

Ad

An advertisement featuring a smiling man, Dr. Josh Axe, in a kitchen setting. The text on the right side of the image promotes Ancient Nutrition products available on Amazon. The background shows a kitchen with a sink and a stove.

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