

PROTECT YOUR HEALTH FROM POOR INDOOR AIR QUALITY



The air you breathe isn't as clean as you think.

The air you breathe can be riddled with allergens such as pollen, dust mites, dirt, and mold spores. It can also be contaminated with bacteria and viruses. Even the cleaning products we use create gases that diminish the air quality we breathe. It is vital to our health to remove these pollutants from our homes.

6 Indoor Air Quality Facts

1 #1 Health Problem

The EPA considers indoor air quality to be the #1 environmental health problem in the United States.

2 50% of All Illnesses

According to the EPA, indoor air quality is responsible for as much as 50% of all illnesses.

3 5 x More Polluted

EPA studies show the air in our homes is 2-5x more polluted than the air outdoors.

4 90% Exposure

On average, we spend 90% of our time indoors, placing us at greater risk.

5 Serious Side Effects

Poor air quality is known to trigger and worsen asthma and allergy symptoms, cause shortness of breath and respiratory issues, contribute to dust mites and mold, and even damage home furnishings.

6 50 Million People

Over 50 million people in the US suffer from allergies, and 25 million suffer from asthma.

Air Quality—Top 7 Offenders

Here is a list of the most common biologic and chemical indoor pollutants:

 1. Mold/Mildew/Fungi



2. Bacteria/Viruses



3. Dust mites



4. Pet dander



5. Smoking



6. VOCs: Cleaning products, paints, pesticides, etc.



7. Gases: Radon and CO₂

Protect Yourself and Your Family

Fortunately, there are ways to protect yourself and your family by installing different types of Indoor Air Quality (IAQ) products. Here is a summary of the most common problems and ways for you to protect your family:

Air Quality Risk

Protection

1. Biological Pollutants: Pets, dust mites, mold, pollen, animal dander

Install Media Filter or Air Purifier to kill and remove pollutants

2. Chemical Pollutants: Cleaners, paints, adhesives, pesticides, air fresheners

Install a Ventilator to pull fresh air into the home

3. Carbon Dioxide: Burning candles, gas, wood and other combustibles

Install a Ventilator to pull fresh air into the home

4. Gases: Radon and CO₂

Install CO₂ detectors, test for radon, install Ventilator

5. Humidity: Too much or too little moisture in the air

Install a Humidifier or Dehumidifier to regulate the moisture levels

6. Mold and Bacteria on the Cooling Coil: Dampness

Install UV Lights to kill and prevent mold and bacteria from growing on the coils

Know Your Indoor Air Quality Equipment

There are a variety of indoor air purification technologies available to the consumer. Each has distinct advantages and disadvantages. For this reason, it is best to consult with a professional who can provide accurate testing and recommend the most suitable air purification system, or combination of systems, for your particular environment.

Some of the most common types of Indoor Air Purification technologies include:

Ventilators. A fresh air ventilation system brings fresh air from the outside into the home, disrupting and diluting stagnant indoor air. Fresh air is brought into the home through vents on the outside of the home. The fresh influx of air stirs the standing air diluting and moving odors, moisture, and contaminants through the air and into the filtration system. Some ventilators work with a home's existing duct work and can be programmed to bring in the recommended amount of fresh air while minimizing energy usage and monitoring humidity levels.

Filters. The air filter is typically located at the point where the return duct enters the air handler. Their basic function is to clean the air that circulates through the heating and cooling system. Filters trap and hold many types of particulates and contaminants that could affect your health and comfort. There are two types of filters – MERV and Media.

MERV Filters. These filters are rated via the Minimum Efficiency Reporting Value (MERV) system. This system evaluates the efficiency of an air filter based on how effective it is at catching particles of varying sizes. MERV ratings range from 1-20, with 1 being the lowest level of filtration, and 20 being the highest. MERV 16 through 20 are usually only found in hospitals, cleanrooms, and nuclear power plants. Effective home air filters are rated anywhere between MERV 5 and 13, though we are seeing some MERV 16 for home air filters. MERV Filters are disposable and replacement frequency will vary from monthly to half-yearly depending upon the home and filter choice.

Media Filters. Sitting between the main return duct and the blower cabinet, media filters are deeply pleated, paper-like material, that is at least seven times more effective at removing dust and other particles including flu viruses.

While usually no wider than six inches, the pleated material can cover up to 75 square feet when stretched out. This increased area of filtration accounts for the filter's long life and ability to capture more contaminants. The media filter's tight weave can restrict the HVAC system's ability to blow air through the home. It's important to seek the advice of a heating and air conditioning professional to insure the media filter chosen doesn't put a strain on the HVAC system.

Media Filters are disposable and replacement frequency will vary from 6 months to 1 year depending upon the home and filter choice.

Air Purifiers. Installed inside the HVAC air duct, an air purification system attracts and kills molds, bacteria, allergens, and viruses as the air flows through, and with some models, just past the system. They also reduce, smoke, static electricity, and everyday odors from pets and cooking. Independent testing on certain Air Purification Systems has shown to significantly (up to 99%) inactivate captured viruses and germs including CORONAVIRUS.

Air Purifiers are both disposable and permanent depending upon the make and model. Replacement frequency on the disposable filters is typically every several months to a year.

Humidifiers. There are three types of humidifiers – Fan-Powered, Steam, and Bypass. All three add moisture, primarily in the winter months. Maintaining proper moisture levels reduces colds and flu, relieves itchy, dry, and cracked skin, dry nasal passages, static electricity, and protects hardwoods, musical instruments, and electronics from drying out and cracking. The fan-powered and bypass models deliver water vapors into the duct. Steam models deliver high temperature water vapors into the duct through dispersion tubes.

Dehumidifier. Whole-house dehumidifiers mount in the duct to your existing HVAC system to effectively transfer dry air evenly throughout your home and thus remove excess moisture. Excess moisture can be found in the home due to a variety of reasons; crawlspaces and basements, sealed up attics, reduced run times on air conditioning systems.

Dehumidifiers are most commonly used in summer months when humidity levels are higher. It's important to note, that all these components only work while the HVAC system is in operation. In a lot of cases, homeowners only run their systems on average 25% of the time. Running the fan for longer periods will increase the removal of both biological and chemical pollutants as well as maintain the proper moisture levels.

Ultraviolet Germicidal UV Lights. UV Lights are mounted inside the HVAC system near the indoor cooling coil. As cold and warm air pass through the system, mold, and bacteria can grow in the condensation left behind. Left untreated these mold spores and unpleasant odors can be spread throughout the home.

UV Lights kill the bacteria and mold located on or around these coils and the drain pan preventing these spores from circulating throughout your home. UV Lights are easily maintained with the lights replaced every 1-2 years.

Schedule an appointment online with one of our
Indoor Air Quality experts or call us on
301-615-2755



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