

If nothing else, 2020 made us all quite aware of the dangers of unclean air. We cringed when we heard someone cough behind us, we cancelled major events and even avoided saying goodbye to loved ones when they passed. It was a year of learning and surviving.

Now that 2021 is in full swing, there seems to be pendulum swings occurring when it comes to infectious disease, air quality control and gathering together. Some of us believe that we have not seen the last of COVID, others are quite sure it is over. Some are standing in line for a vaccine, yet others are holding out, not quite believing in the solutions. No matter who you are or where you live, air quality needs to be a concern and that is not just because of COVID but because of every day life, maladies, threats and nature herself.

It is a good thing that there is an increasing concern about air pollution levels both outdoors and indoors. According to the United States Environmental Protection Agency (EPA), indoor air can be five times as polluted as outdoor air. Since indoor air is not circulated as much as outside air, many airborne pollutants continue to thrive inside.

While last year we fought to find supplies such as wipes, toilet paper and sanitizer, this year I might suggest that we take what we have learned and apply it to our future. The future is in air purification. Air purifiers can refresh stale air, reducing the chances of health issues caused by indoor pollutants, which can trigger respiratory infections, neurological problems, or aggravate symptoms in asthma sufferers. Quality air purifiers eliminate several types of indoor air pollutants, keeping us healthy.

Benefits of an Air Purifier

Air purifiers with HEPA technology filters can remove 99.7 percent of the airborne particulate matter (PM) circulating in your home environment. Removing these pollutants can lead to several immediate and long term health benefits such as better sleep quality and increased life expectancy.

Relieves Symptoms of Asthma

According to the Centers for Disease Control and Prevention, 1 in 12 people have asthma. Pollutants such as pet dander, pollen, or dust mites irritate their airways, causing difficulty breathing.

Many breeds of dogs and cats shed throughout the year. When these pets scratch themselves they spread a lot of hair and dander which keeps circulating in the air. Even if you don't have pets, there are other triggering factors for asthma such as pollen and dust mites.

Pollen particles flow in with the breeze through open windows or they stick to your clothes when you are outside. Dust mites are the most common indoor allergens, thriving in a humid environment. Lack of fresh air increases indoor humidity levels, providing the perfect breeding ground for dust mites. They feed on dead skin cells and multiply quickly in your bed, carpet, and other upholstered furniture.

Vacuuming your bed, carpet, and floors can eliminate these pollutants, but some of them remain suspended in the air. Breathing in the polluted air increases the chances of asthma attacks.

Most air purifiers contain HEPA filters, designed to capture all these pollutants so you breathe clean air. HEPA filters comprise multi-layered meshes made of fine fiberglass threads, thinner than strands of hair. The pollens, dust mites, and pet dander floating in the home environment are trapped in these meshes so you enjoy clean air.

Some air purifiers include replaceable pre-filters for trapping larger particles, so the HEPA filters are preserved for capturing smaller pathogens. This system prolongs the efficiency of your air purifier. An efficient air purifier continues to keep your indoor air free of pollutants, reducing the chances of breathing difficulties caused by asthma.

Eliminates Harmful Chemicals from Indoor Environments

Closing the doors and windows of our house does not mean we can shut off external pollutants such as nitrogen dioxide and carbon monoxide. These gases are commonly found in areas of high motor vehicle traffic and may get inside your home or office. Research from the National Library of Medicine shows exposure to carbon monoxide and nitrogen dioxide PM increases the risk of dementia and Alzheimer's disease.

Even if you don't live in large cities with high vehicular traffic, your home or office atmosphere could still be polluted with toxins from several cleaning agents. Many regular household cleaners contain toxic chemicals such as ammonia, chlorine, and phthalates. Exposure to these chemicals in small quantities may be harmless, but routine exposure can lead to serious health issues like a tumor, cancer, cardiovascular, or neurological disorders.

Air purifiers with activated carbon can cleanse these chemical contaminants, avoiding the risk of several health problems. A highly porous form of carbon is used in this carbon filtering method to trap chemicals, recycling fresh air back to the room.

Neutralizes Unpleasant Odors

Some chemicals such as gasoline, benzene, and formaldehyde break down at room temperature causing an off-gassing odor. These chemicals, called Volatile organic compounds (VOCs), are commonly found in paints, aerosol sprays, upholstered furniture, or air fresheners. The odor from VOCs can cause nausea, breathlessness, and even affect your cognitive functions.

Other NIH studies show low VOC levels in ambient air improves productivity and performance. Air purifiers with HEPA and activated carbon filters are effective in trapping gases as well as particles, reducing pollutants in the indoor environment.

Reduces the Chances of Airborne Diseases

Airborne diseases from COVID to the common cold and flu are spread through tiny pathogens floating around. We all know that when one family member or one office staff member gets sick, it is not long before everyone is suffering. This happens because everyone is breathing the same air that's infected with bacteria and viruses.

Air purifiers with HEPA filters capture these bacteria and viruses. When you remove the cause of airborne diseases, you safeguard yourself and others from them.

Removes Harmful Radon

The breakdown of naturally-occurring radioactive elements such as uranium found in certain building materials produces radon gas. Radon is a colorless and odorless gas, emitting from building materials like rocks, soil, and granite.

Watch out for cracks on the floor, walls, or plasterwork. The carcinogenic radon gas leaks into your environment through these cracks. Radon gas damages the cell linings of the lungs, leading to cancer. A 2013 EPA assessment indicates there could be as many as 21,000 deaths annually in the US related to lung cancer caused by radon gas.

To reduce the risk of radon pollution, use air purifiers. HEPA and activated carbon filters can trap radon particles and radon gas, protecting you from its harmful effects.

Eliminates Hazardous Asbestos Particles

Asbestos roofing materials or insulation pipes were common from the 1940s to the 1960s. If you live in an old house or work in an old commercial building you may be exposed to asbestos particles. With age, these buildings shed materials spreading asbestos dust in the ambient air.

If you breathe in asbestos particles, they can cause a lung disease marked by tissue scarring. Swelling in the neck or face, loss of appetite, and difficulty swallowing are some symptoms of asbestosis. This disease also increases the risk of lung cancer.

To protect yourself from asbestosis, one needs to use HEPA air purifiers that capture asbestos particles.

Can Increase Life Expectancy

Indoor air pollution can affect your cardiac, respiratory, and even neurological systems. Chemicals and gases from common household products can accumulate in your lungs. In fact, the airborne particles are so small that they penetrate the blood-brain barrier, impacting your brain and cognitive functions.

A good air purifier traps even the fine particles providing you with better air quality.

How Do Air Purifiers Work?

Air purifiers usually contain one or more filters and a fan. The fan (or sometimes a system of internal fans) sucks in air, and that air then passes through the inside filters. These filters trap pollutants such as dust, pollen, and bacteria, and disperse clean air back into the room. This filtering process maintains healthy air circulation indoors.

Types of Air Purifiers

While most air purifiers contain HEPA (High-Efficiency Particulate Air) filters, some air purifiers include other types of filters such as activated carbon or UV light. Certain technologically advanced air purifiers include a combination of two or three types of filters.

- HEPA Filters: Air purifiers with HEPA filters can capture pollutants as little as 0.3 microns in size. These tiny particles cannot even be seen by human eyes. The smallest particles visible to us are at least 50 or 60 microns in size.

- Activated Carbon: Air purifiers with activated carbon filters effectively trap odors. They can't capture viruses and bacteria like HEPA filters can.

- Ultraviolet Light Air Purifiers: These air purifiers use UV rays to kill the germs floating in the air. Some UV light air cleaners release ozone, so check before buying this type of purifier.

Now that you are armed with a knowledge of air purifiers and lessons learned from 2020, we would like to introduce you to RenewO2. Unlike many air purification companies in the marketplace, RenewO2 has been around for over ____ years. We understand air purification, infectious disease control and the importance of your health. It is this experience and understanding that led us to create air purification systems rather than air purifiers.

The RenewO2 systems utilize all of the above means of filtration to make sure your provided air is the cleanest and safest possible.

When you purchase your RenewO2 system, you can know that you have purchased a quality product that has been built to commercial and industrial specs. Each system utilizes not only a HEPA filter system, but also includes activated charcoal filters and UV-C light.

RenewO2 systems come in several sizes from the small portable "mask-mount" "Whisper" to the Whole Room Purifier. Small portable pocket-sized units are available as well as units designed for vehicles and cubicles. Each system is made in the United States and represents the care, knowledge and experience of a company that knows you cannot afford to make a wrong decision by purchasing the wrong product.

Once you have your RenewO2 systems in place, take further measures like cleaning more often, growing indoor plants and maintaining proper ventilation in your rooms. Vacuum your floors at least once per week to prevent allergen build up and use dehumidifiers to avert mold and mildew growth. The next threat may be as simple as a high pollen count next week, but it could be that we have not seen our last pandemic. Either way, selecting a well-built quality air purification system can improve your quality of life at work and at home while protecting those you care about.

