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AdvancedComfortSystems.net



A Guide to Indoor Air Quality

BREATHE BETTER WITH SOLUTIONS FROM ADVANCED COMFORT



7-TIME WINNERS



Making Your Decision Process Easier

Finding ways to improve your indoor air quality (IAQ) can be an overwhelming process—especially when you don't know where to start. At Advanced Comfort Systems, we make the process easy with three simple words: Start with us.

In this guide, we'll walk you through all things indoor air quality, including:

- IAQ basics
- The top air quality systems and solutions
- The role of humidity for health and efficiency
- And more



**7-TIME
WINNERS**

PRESIDENTS AWARD



As seven-time winners of the prestigious Carrier® President's Award, our experts collaborate well, diagnose even the toughest problems, and treat you with the respect and service you deserve. We take your comfort seriously.

Understanding Your Indoor Air Quality

Did you know the air inside your home could be two to five times more polluted than the air outdoors? According to the Environmental Protection Agency, your indoor air is one of the most concerning environmental dangers your family will face. And because we spend about 90 percent of our time indoors, your air quality is more important than you might think.

How Does Your Air Get So Contaminated?

You may not realize it, but factors like dust, dirt, household cleaners, and even carpet fibers all play a role in indoor pollution. These contaminants typically fall into three different categories:

1 Particulates Particle matter, like dust, pollen, spores, fibers, and dander, which can be as small as a few nanometers in size.

2 Volatile Organic Compounds Also known as VOCs, these pollutants are usually gases—think formaldehyde, nitrogen oxides, ozone, radon, and other chemicals. These most often come from air fresheners, household cleaners, and personal care products.

3 Pathogens/Bioaerosols Viruses, bacteria, fungi, and more often grow and circulate when you least expect them. In addition to colds and the flu, pathogens—particularly mold spores—can also affect those with allergies or asthma.



How Can I Breathe Better Air?

That's what the experts at Advanced Comfort Systems are here to help you with. Turn the page to discover the best ways to improve your air quality and keep you and your family safe and healthy at home.

Air Purification

Air purifiers are one of the best ways to eliminate indoor pollution and keep your home fresh and clean. Sized to serve your whole house, these silent and efficient units capture and eliminate up to 99 percent of viruses, bacteria, and other airborne contaminants floating around. They are 40 times more effective than a standard furnace filter.



SecureAire Air Purifier

At Advanced Comfort, we install SecureAire purifiers in both our customers' homes and our own. Why? Previously exclusive only to hospital operating rooms, intensive care units, and clean manufacturing rooms, the SecureAire system is the best of the best—and it's now available for residential use.

Here's how it works:

- The purifier releases an energy field to kill and nullify contaminants, from pathogens to VOCs.
- A MERV15 filter captures larger particles.
- A second energy field cleans up any leftover particles, giving them a neutral charge as they pass through your purifier and into your home. Once back in the air stream, these neutrally charged particles attract and attach to other particles to further clean your air.
- No ozone is produced with this system.

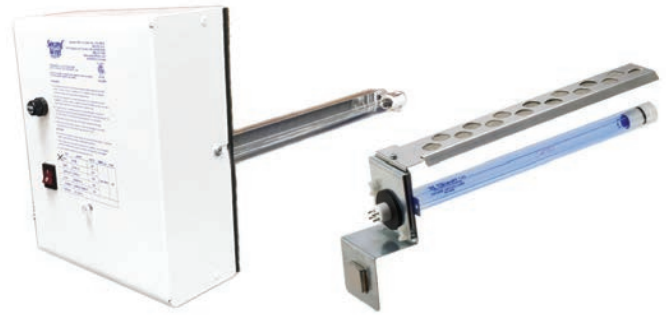
Plus, SecureAire filters typically last for a full year, which is almost four times as long as traditional filters. Each purifier also comes with a 10-year warranty including labor for the first five years.



SecureAire™

UV Lights

Ultraviolet (UV) lights are extremely effective in killing airborne bacteria, viruses, and mold. In fact, the UV rays inactivate those harmful microorganisms, rendering them unable to replicate and spread disease. The lights work best by decontaminating surfaces.



Air Ionization

Ionizers and oxidizers work similarly to UV lights in that they target and deactivate airborne microorganisms like mold and bacteria. The difference lies in how they do so. These systems apply a high-voltage discharge to create positive and/or negative ions that disrupt the microorganisms' cells, which kill and deactivate them.



**Ask your Advanced Comfort expert about
Second Wind and iWave air quality products
for a healthier home.**

Home Humidity Levels

You might not think about it, but maintaining proper moisture levels in your home is essential. It not only affects your health and comfort, but it can also protect your home and furnishings. Proper humidity can even help lower your heating and cooling bills.



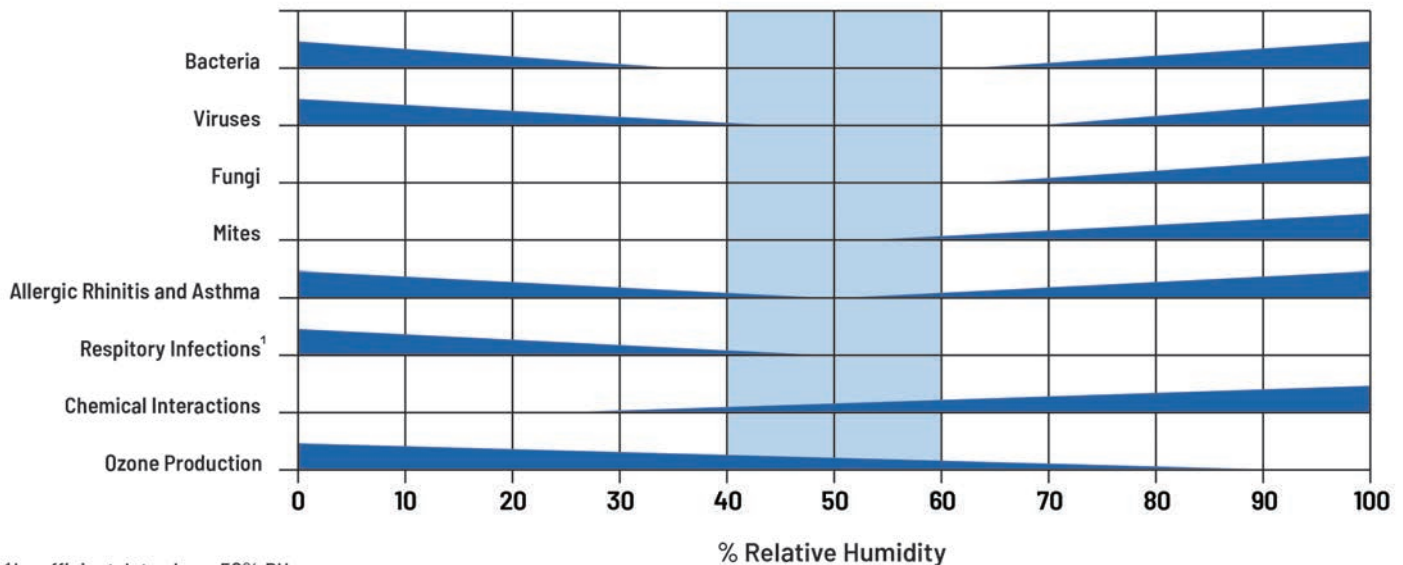
Summer Humidity

During the warmer months, it's common for the air to feel heavier and more damp. It's uncomfortable, but it can also lead to worse problems, such as mold and mildew growth, dust mite activity, and bad allergies or asthma triggers. High humidity is also a strain on your AC, which will work harder than normal to remove excess moisture.

Winter Humidity

When winter hits, our homes have the opposite problem: The air is too dry. Our skin gets itchy, our wooden furnishings shrink and crack, and we tend to get sick more often. Running a portable humidifier can help, but it's not a long-term solution—and it's a quick way to put unnecessary stress on the system.

OPTIMUM RELATIVE HUMIDITY RANGES FOR HEALTH



¹Insufficient data above 50% RH.

E.M. Sterling, Criteria for Human Exposure to Humidity in Occupied Buildings, 1985 ASHRAE.

How to Fix Indoor Humidity Problems

Humidifiers

These systems work alongside your HVAC to add moisture into your air via water. The best humidifier for you often depends on what heating system you have—bypass units typically work well with single-stage furnaces, while fan-assist versions are ideal if your furnace is variable-speed. Don't know which to choose? Ask our air quality experts!



Air Conditioners

Today's air conditioners do more than simply cool your home in the summer—they can also help dehumidify your air. In fact, certain systems can measure both humidity and temperature and adapt to both, giving you perfect comfort even on the hottest days.



Portable Humidifiers

If you only have a certain room that suffers from dry air, a portable humidifier can be a good option. However, if you plan to use one often, opt for an evaporative style—other types can emit a fine dust that can quickly clog up your air filter.



Automatic Controls

To get the most out of your humidifier and dehumidifier, pair them with one of our digital control systems. They can measure indoor humidity and outdoor temperature to find the perfect setting, as well as self-adjust moisture levels as conditions change. These controls come in a variety of options. Ask your Advanced Comfort expert to recommend the best one for you.



Dehumidifiers

Our whole-home units are robustly built and feature more powerful fans and better controls than systems you can buy in the store. They are designed to run efficiently, remove the most humidity, and run fewer cycles—all of which adds up to a longer product life.



Air Filtration

A great method to reducing indoor pollution and increasing air quality is to filter out airborne particulates. Your standard furnace filter can help trap those particulates as they travel through your ducts, but it can't catch everything. And over time, that filter will get dirty, causing airflow problems and putting unneeded stress on your furnace and AC. Fortunately, there are other solutions—see below.

MERV Ratings

MERV, or Minimum Efficiency Reporting Value, measures how efficient a filter is. The higher the rating, the smaller the particulate the filter can remove.

Normally, when it comes to HVAC ratings, higher numbers mean a more efficient system. With MERV, that would also be the case—if not for static pressure.



What Is Static Pressure?

Static pressure is the measure of airflow resistance in your HVAC system. When the MERV rating is high and your air filter is dirty, the static pressure increases, which can lead to many system and comfort

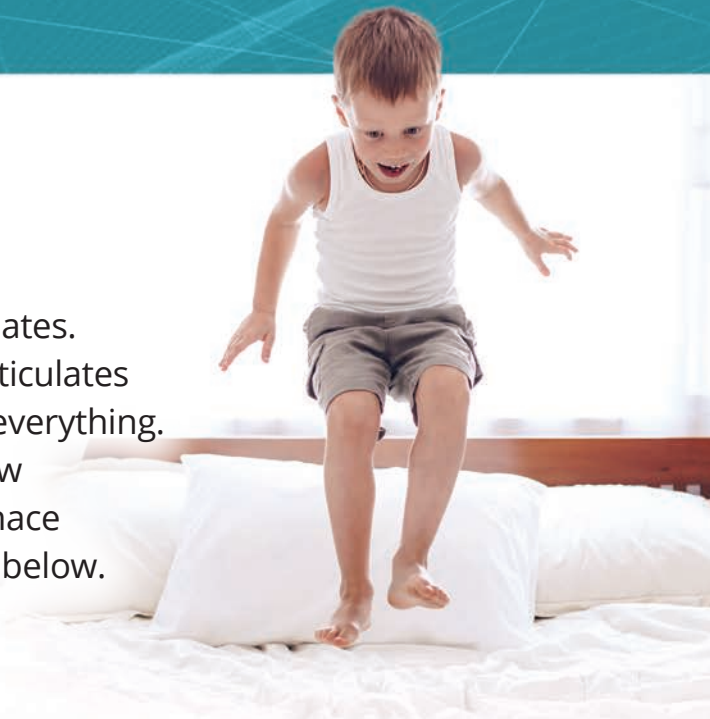
problems including worn out parts, tripped switches, and energy inefficiencies.

Note: Closing off registers or rooms will raise static pressure, lowering your system's performance and potentially hurting equipment longevity. This can cost you more in the long run than in energy saved.

Balancing Static Pressure and Filtration

For best results, our experts recommend using four-inch media filters with a MERV rating of or near eight. This filter's larger surface area combined with a moderate rating will help protect the equipment from static pressure and allow for optimal air flow all while keeping you comfortable.

However, if you or someone in your family has asthma, allergies, or another medical condition, consider using UV lights or an ionizer along with a filter MERV-rated 11 or 13 (frequent changes recommended). Or, for even better results, install an air purifier.



Advanced Comfort Cares

To Our Amazing Community

Since our start in 2008, Advanced Comfort has been blessed with great employees, incredible customers, and an unbelievable community. We owe our President's Awards, honors, and success all to you.

To help say thank you, we started our Advanced Comfort Cares program in 2022. It's designed to help our customers give back to the community while saving on the HVAC services they need:

Save \$10 on your next heating or cooling service call when you give two nonperishable food items to your Advanced Comfort team member.

All donations benefit:



Get two free media filters or an air purifier filter with every customer donation of a new children's coat.

All donations benefit:

COATS FOR KIDS
Community Service Campaign
Sponsored by Reinhold-Novak Funeral Home



Turn to the experts

