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1. Why should I consider an air purification system?

Indoor air pollution is among the top five environmental risks to public health, according to the U.S. Environmental Protection Agency (EPA). Lung-damaging indoor pollutants may include house dust, pollen and pet dander particles, and tobacco smoke, fumes released by chemical-based cleaners or gases produced by synthetic building materials. While air purification cannot solve all indoor air pollution problems, the technique is an important part of the EPA's recommended strategy for improving indoor air quality. Contemporary construction methods help seal fumes and particles indoors. According to the EPA, indoor pollution levels may build until they are from 2 to 5 times higher than outdoor levels--and may even be as much as 100 times higher. Because we spend as much as 90% of our time inside our homes and workplaces, the health risks from exposure to indoor air pollution cannot be ignored. Immediate health effects may include headache, fatigue, and irritation of the eyes, nose and throat. Even if you experience no noticeable symptoms of pollution-related illness, the EPA says it is prudent to improve the quality of your indoor air. Long-term exposure may contribute to respiratory and heart diseases, allergies or asthma, and hypersensitivity pneumonitis.

To improve indoor air quality, the EPA recommends removal of the pollutant source, increased ventilation, and air cleaning. The first two strategies are effective for some pollutants under some circumstances. Air purification, in conjunction with either strategy or on its own, may be the easiest to live with. Blueair systems remove 99.97% of the tiniest (.1 micron) particles that accumulate inside our homes when operating on level one. These pollutants can affect anyone over time, although children, the elderly and those with respiratory illness (including allergies and asthma) may suffer most from high indoor pollution levels. While air purification cannot solve all indoor air quality problems, the technique is an important part of the EPA's recommended strategy for improving indoor air quality.

2. How small is a micron and why does it matter?

A. One micron is 1/25,000 of an inch. To understand just how small this is, consider that human

hairs measure between 30 and 120 microns. Dust mite allergen measures from .1 to .3 micron and staphylococcus bacteria measures .7 micron. The size of a given particle helps to determine the degree of potential threat to human health. Particles ranging from .3 to .9 micron present the greatest health concern.

These irritating mid-range particles include house and textile dust, pollen, pet dander, dust mites and their feces, many bacteria, auto exhaust, mold spores, and particles from laser printers and copiers. Particles in this size range (.3 to .9 micron) are small enough to get past the tiny hairs that line our breathing passages and too large to be easily exhaled.

Because mid-range particles are more likely to become lodged in lung tissue, they are suspect in a wide range of health problems related to indoor air pollution, from headaches and dizziness to cardiovascular disease and cancer. In particular, pollen, pet dander, mold spores and dust mite particles are known to trigger asthma episodes and allergy attacks.

While smaller particles (.1 to .3 micron) can be inhaled and exhaled more easily than mid-range particles, even these minute particles may irritate breathing passages and lungs. Smaller particle filtration is particularly beneficial to people living with allergies, asthma, other respiratory conditions, or cardiovascular disease.

Blueair's patented HEPASilent™ filter technology is proven effective at capturing 99.97% of the tiniest .1 micron particles. This same filter technology earned the Blueair 501 Best of Class ranking in independent testing of Clean Air Delivery Rate (CADR), a measure of overall system performance. When optimum filter capability is the priority, Blueair is clearly the system of choice.

3. What does CADR mean?

To the consumer, CADR is an important tool for comparing the overall performance of different makes and models of air cleaners. CADR stands for Clean Air Delivery Rate, a measure of the total volume of air that a particular air purification system cleanses of a specific pollutant in one minute. When the particle size and filter efficiency of any two air cleaners are the same (as they often are), CADR is the key to choosing the more effective system.

To ensure accuracy and fairness, CADR testing is performed only by an independent industry organization, the Association of Home Appliance Manufacturers (AHAM). CADR test results are recognized as accurate and impartial by the U.S. Environmental Protection Agency and the American Lung Association.

CADR test results are expressed in cubic feet per minute (CFM), with a number rating for three "yardstick" pollutants: tobacco smoke, dust and pollen. The higher the CADR test numbers, the better the overall ability of the unit to clean your indoor air. CADR results reflect:

- . the size of the particle removed
- . what percentages of particles are removed
- . the volume of air actually moving through the system

Air volume is often described as air exchange (the number of times the total volume of air in the room is processed by the unit within a given period of time).

CADR works the same way, rating not just how much air is cleaned nor just what percentages of particles are removed, but the overall performance of the filtration system when both factors are examined.

While some manufacturers do not submit their air purification systems for independent AHAM testing, we at Blueair believe that CADR results should be central to your decision making process. An air purification system is an important investment in your family's health and well-being. We urge you to compare CADR results for the systems you consider. For more information about CADR testing, go to <http://www.cadr.org>

4. Which Blueair unit is the best for me?

Simple--it's a matter of room size.

Each Blueair model uses HEPASilent™ filtration technology to achieve 99.9% efficiency at 0.3 micron and 99.97% efficiency at 0.1 micron. But filter performance is only part of the picture. Your air purifier must also be able to process the volume of air in the room where it operates. You need only compare the size of your room to the room size capacities listed below.

Our room size recommendations are based on testing by the Association of Home Appliance Manufacturers (AHAM), an independent industry organization that rates air cleaners for overall performance. Choose the system that matches your room size. All room sizes assume an 8-foot (2.4 meter) ceiling; if your ceilings are higher, choose the system that matches the next larger room size.

Room Size	Best Blueair System
Up to 679 square feet	Blueair 601
Up to 620 square feet	Blueair 501
Up to 365 square feet	Blueair 402
Up to 200 square feet	Blueair 201

5. What type of Blueair filter do I need?

Choose a filter type based on the kinds of pollutants (particles and gases) that may be present in your particular environment. Blueair's standard HEPASilent™ filter provides efficient filtration for environments where particles are the primary concern and gases are secondary. For any environment in which removing gaseous pollutants (including tobacco smoke) is a priority, we recommend the optional SmokeStop filter.

All Blueair systems incorporate patented HEPASilent™ technology, the same system that earned

Blueair 501 units the top two rankings in independent testing of Clean Air Delivery Rate (CADR), a measure of overall system performance. HEPASilent™ technology combines mechanical and electrostatic filtration methods to capture 99.97% of the tiniest 0.1 micron particles and gases.

Blueair systems remove more of the smallest particles, compared to the HEPA systems of other manufacturers. They remove more dust than competitive units. Our standard filters are suitable not only for average homes with family members in good overall health, but also for families who need an extra level of protection for the elderly, small children or those with respiratory or cardiovascular illness.

Blueair's optional SmokeStop filter adds more gas adsorption capability and is recommended for removal of tobacco smoke, and for environments like workshops or workplaces where chemical fumes and gases are present.

6. What are Blueair filters made of?

Standard HEPASilent™ filters incorporate non-toxic polypropylene filter media to trap particles and activated carbon filter media to remove gases. The optional SmokeStop filter adds more carbon for enhanced gas adsorption. The two filter options are otherwise identical in terms of particle filtering ability, filter life and size. Both polypropylene and carbon are recyclable. Polypropylene is a nontoxic fiber with ideal properties for use as a filter media.

Polypropylene is central to the electrostatic filtration component of the Blueair system. Polypropylene molecules readily orient to an electric field. That is, the molecules "feel" a charged particle enter the filter media and turn toward it. This creates a high attraction force, which acts in turn to draw the particle toward the polypropylene fiber where it can be captured.

When compared to standard filter media made of triclosan-coated paper or glass fibers, polypropylene is an ideal material. Because polypropylene is waterproof, Blueair systems need no chemical-based bacteriostats or mold inhibitors. Instead of absorbing the moisture in which bacteria thrive, polypropylene repels water and prevents bacteria, mold and mildew from reproducing inside the filter. Thus, your family can avoid the potential adverse health effects of chemical additives.

Activated carbon adsorbs odors, fumes and other gaseous pollutants implicated in a host of illnesses related to indoor air pollution. Both standard Blueair system filters and advanced SmokeStop filters use activated carbon media; the optional SmokeStop filter has a higher carbon weight that enables it to absorb significantly more gases and odors.

7. How does HEPASilent™ technology achieve such high levels of filtration?

Most HEPA filter systems use only mechanical filtration, which as a standard, remove 99.97% of particles at 0.3 micron. Blueair's patented HEPASilent™ filter technology combines mechanical and active electrostatic filtration methods, in order to achieve higher efficiency and capture smaller particles than either mechanical or electrostatic filtration alone.

Mechanical filtration essentially strains out or intercepts mid-range particles (0.3 to 0.9 micron) in much the same way as a colander strains pasta. And just as tiny bits of pasta escape through the

holes in a colander, the tiniest particles can float past the filter media and escape an air purification system.

Particles that mechanical filtration alone might miss are captured by the electrostatic component of Blueair's HEPASilent™ system. HEPASilent technology filters out 99.97% of particles at 0.1 micron, when operating at its lowest speed.

Our system moves all particles through a sealed ion chamber, where they collide with negative ions and pick up a very slight electrical charge. As they exit the ion chamber, particles are attracted to the positively charged pleats of the HEPASilent™ filter media. Rather than floating past the filter media, particles are captured and removed from your indoor air.

Most electrostatic systems charge the fibers of the filter media itself, rather than the particles. The charge naturally dissipates over time and renders the filter media less efficient. By constantly charging incoming particles, instead of the filter fibers, HEPASilent™ technology keeps on working effectively and reliably.

Ionization does produce trace amounts of ozone, a gas known to irritate compromised lung tissue. Blueair systems use a very low electrical current to minimize ozone production and a sealed steel housing surrounding the ionization chamber to keep ozone contained. For more protection, our activated carbon filter adsorbs any ozone particles that may escape from the encapsulated ionization chamber.

In fact, testing shows that the ozone concentration in our system's output air is actually lower than in the incoming air. Blueair's electrostatic system is no threat to health, even for those with respiratory illness.

8. Can Blueair systems remove indoor gases?

Yes. The Blueair air purification system can remove gases and fumes such as tobacco smoke, auto exhaust, chemical fumes, smoke from forest fires and gases released by synthetic building materials.

Both the standard HEPASilent™ filter and the optional SmokeStop filter use activated carbon media to trap gases and odors. We recommend the enhanced SmokeStop filter for removing tobacco smoke and for any indoor environment where gaseous pollutants are present. Such environments might include work or hobby rooms (where strong glues and paints are used) and kitchens.

9. How do gases find their way indoors?

The use of chemical-based household and personal cleaners, indoor pesticides, and aerosols of all kinds has dramatically increased our exposure to gaseous pollutants, which often linger inside today's tightly sealed, energy-efficient homes.

Other gases may be introduced into your indoor environment when the plastics, binders and glues in synthetic building materials, carpets and furnishings release particles into the air in a process called outgassing. Combustible gases from heating systems may also be present.

Outgassing can be a particular problem with new synthetic carpets and upholstery, paints and interior wall treatments, and even the pressed furniture that is popular today. All may produce noticeably strong odors and correspondingly high levels of gaseous contaminants, which diminish over time. Installing a SmokeStop filter during and after remodeling can temporarily increase your unit's air cleaning power when outgassing is a problem.

These irritating gases may be a factor in a host of illnesses related to indoor air pollution, from respiratory disease to chemical sensitivity. Even strong odors are known to have a significant effect on asthma. Blueair offers two levels of protection from the potential health problems associated with gaseous pollutants.

Standard HEPASilent™ filters incorporate non-toxic polypropylene filter media to trap particles and activated carbon filter media to remove gases. The optional SmokeStop filters offer added gas adsorption capability. You simply replace the standard filter with the enhanced SmokeStop filter.

10. Can Blueair systems trap airborne bacteria?

The answer is a qualified "yes."

No air filtration system is 100% effective at removing 100% of all bacteria and viruses. However, Blueair's combination of mechanical and active electrostatic filtration provides exceptionally high levels of protection. Our HEPASilent™ technology traps and removes 99.97% of airborne particles as small as 0.1 micron. However, because bacteria may not behave in exactly the same way as non-living particles in the context of filtration, bacteria-specific tests of Blueair systems are currently underway.

11. Does using a Blueair system have any environmental impact?

Blueair air purification systems offer exceptional performance without polluting the environment. We have designed every component to improve both human and environmental health, from the non-toxic filter media to the exterior finish. Our units are energy efficient, and constructed of superior materials for an exceptionally long useful life. All components are recyclable.

Finally, Blueair systems are designed and manufactured to provide years of service, not to be thrown away and replaced every few years. In fact, we offer an industry-high 10-year warranty. When you are ready to replace your Blueair unit, you'll find the entire system designed for quick disassembly to make recycling easy and practical.

12. Do Blueair systems produce dangerous levels of ozone?

No. The most stringent government standards for indoor ozone are those of the Food and Drug Administration for indoor medical devices, which specify that ozone output be no more than .05 ppm. In a closed test room with the Blueair 501 in operation, probes measured ozone levels at .003 ppm—a tiny fraction of the amount deemed hazardous to human health. Our design safeguards against excessive ozone production, and then removes ambient ozone particles from the air.

13. How can I get the most from my Blueair system?

The Blueair system is easy to use. Start by choosing the right size unit for your room, and replace the filter at the recommended 6-month intervals. Remember that just as air conditioners and heaters have limits to the volume of air they can cool or heat, every air purification system has limits to the volume of air it can clean. Follow these commonsense guidelines:

- . Close your windows. You wouldn't throw open your windows on a hot summer day and expect your air conditioner to work efficiently, because you can feel the hot air coming in and the cool air going out. Even though you can't see the contaminated air coming in and the clean air going out, the same logic applies to your air purifier.

- . Close your doors, too. Just as you might seal off part of your house on a cold winter night to keep your heater working more efficiently, seal off the room in which your system is working for best results. This is especially important for people using a Blueair system to ease nighttime asthma or allergy attacks.

- . Run your system 24 hours per day. Blueair systems are designed for phenomenally low power usage, so you can run the system 24/7 without a jump in electricity consumption. In fact, it costs about the same to power one of our air purification units as it does to power a single light bulb: between 15 and 120 watts, depending on the unit and the operating speed.

- . If visible "fluff" builds up on the outside of the air intake grids, as it can in dustier parts of the world, simply vacuum it away or wipe clean with a damp cloth. The air intake grid is designed in part to intercept very large particles before they enter the system, thereby prolonging the life of the filter. The 402 units may also be vacuumed on the inside, if necessary, while the side panels are open for filter replacement.

14. How often should I change the filter in my Blueair unit?

In order to maintain the high performance level you expect from Blueair, we recommend filter replacement at a six month interval.