

# SecureAire, COVID-19 and Returning to School/Work/Recreation

As our normal routines start to return, we remain concerned about the safety of the indoor air we are breathing. The COVID-19 pandemic, caused by the SARS-COV-2 virus, has killed millions of people and disrupted many aspects of your daily life. SecureAire technology is the most effective solution in providing air security.

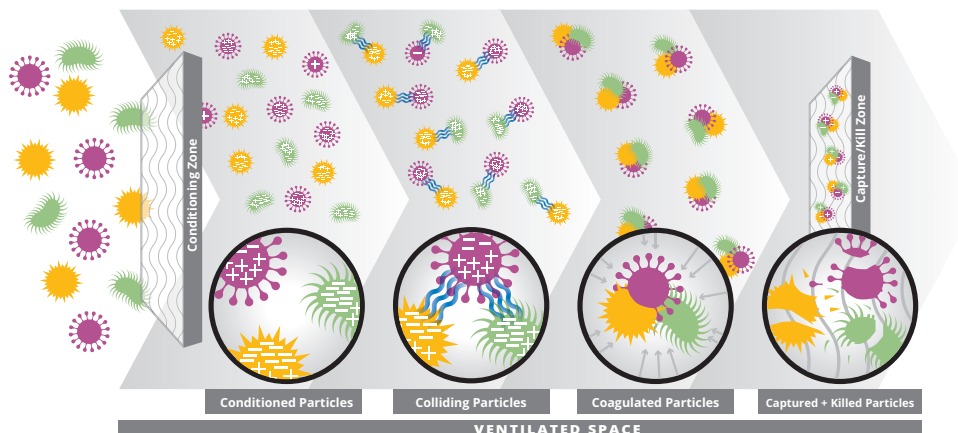
We know that the dominant route by which this deadly pathogen is transmitted is through aerosolized droplets and desiccated viral nuclei. We also know that normal breathing can spread droplets throughout the breathing zone just as effectively as coughing and sneezing. These infectious particles can remain suspended for hours or even days. In fact, SARS-CoV-2 can survive within building ventilation systems and remain viable and infectious for up to nine days.

As we cycle through new viral variants and attempt to reopen hospitals, schools, restaurants, shopping centers, theaters, sports venues, housing complexes, offices, and recreational facilities, we are all looking for air security. SecureAire is the ONLY air purification technology backed by real world data published in peer-reviewed medical journals.<sup>1,2,3</sup>

## The Indoor Air Environment: Micro vs. Macro

Indoor air and marginally ventilated or treated spaces are particularly threatening to inhabitants due to the extremely small size, survivability, and contagious nature of SARS-CoV-2. Numerous Indoor Air Quality (IAQ) technologies have published test results “proving” they quickly and efficiently destroy the SARS-CoV-2. In every case these tests were done in highly controlled and limited environments. In some cases, devices designed to treat large rooms were applied to one cubic foot test chambers. Scientists and clinicians suggest that results from such test chambers (micro-environments) have limited application to large rooms, whole homes, and buildings (macro-environments). In other words, you, your family, and your customers should demand results based on real-world settings that reflect the spaces where you live, work, study, and recreate.

Figure 1



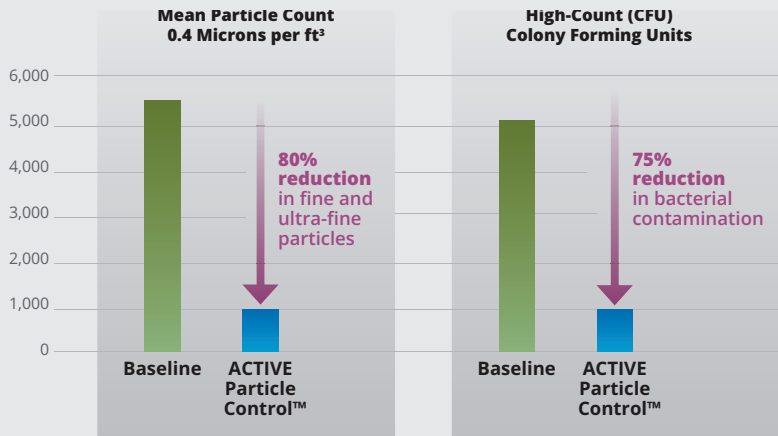
**ACTIVE Particle Control Technology conditions particles and pathogens, induces collisions leading to particle coagulation, and then once collected on the capture media kills all biologic matter.**

# Real World Performance

In recent work SecureAire™ technology underwent real-world testing and met the clinical threshold of reducing actual viral and bacterial infections. Even if other technology can kill the virus none (other than SecureAire™) has ever been shown kill pathogens and reduce viral or bacterial infections in live operating rooms and hospitals.

Figure 2

## SecureAire reduces bacterial contamination in hospital compounding pharmacy.



Mark Hernandez, PhD, PE,  
Director, Environmental  
Engineering and Disinfection  
Laboratory University of  
Colorado, Boulder

*American Journal of  
Infection Control*, July 2020

## SecureAire technology improves operating room air and kills a highly resistant Anthrax surrogate.

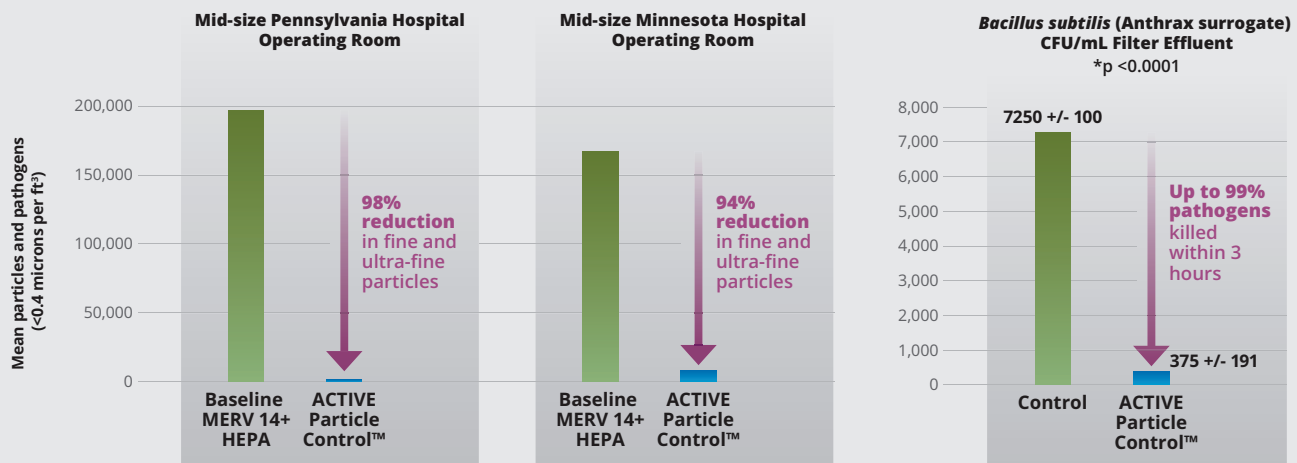
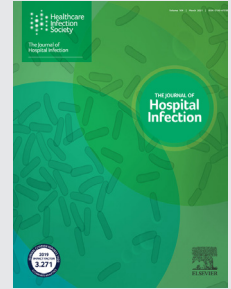
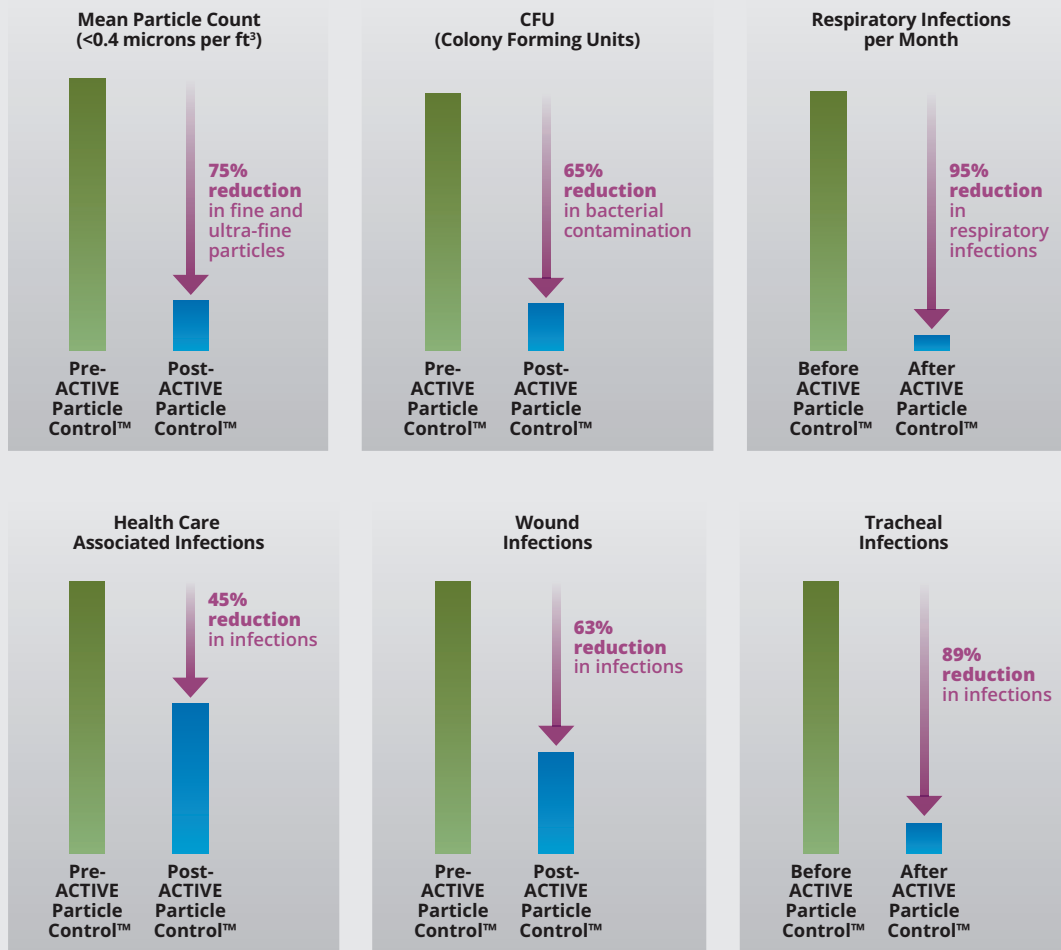


Figure 3

In over 100,000 patient days over 30 months in a 124 bed pediatric post-acute care hospital, SecureAire technology reduced hospital acquired infections.



Mark Ereth, MD,  
Emeritus Professor,  
Mayo Clinic College  
of Medicine,  
Rochester, Minnesota

Journal of  
Hospital Infection,  
October 2021

### Pathogen Inactivation

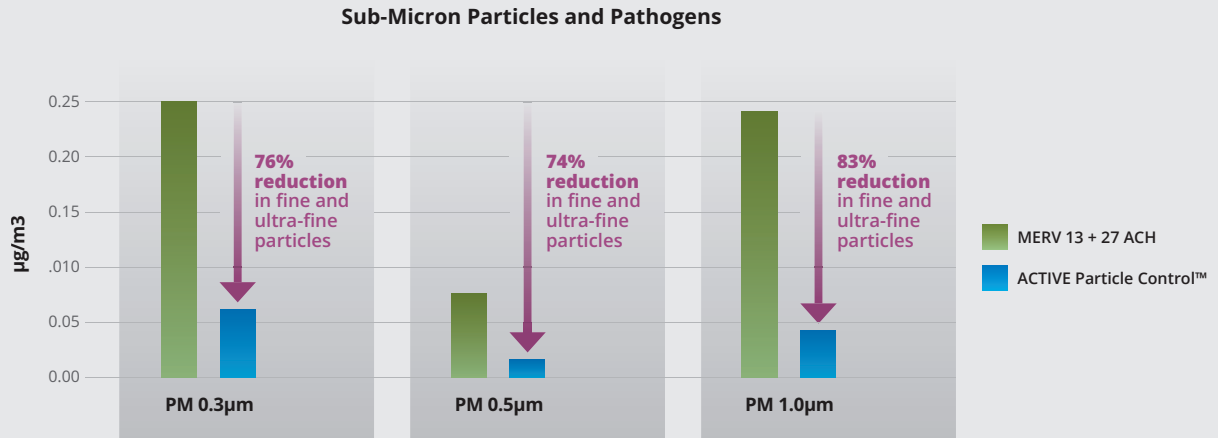
The SARS-CoV-2 virus is exponentially easier to destroy than the Anthrax surrogate (*Bacillus subtilis*) used in the above study (Figure 2). If *Bacillus subtilis* can be removed and destroyed (already proven by SecureAire technology), then the SARS-CoV-2 virus will certainly be removed and destroyed even more quickly (personal communication, Mark T. Hernandez, PhD, Director, Environmental Engineering Microbiology and Disinfection Lab, University of Colorado).

Figure 4

### Elevator Air Security

Riding in an elevator during the pandemic is stressful. When you enter an elevator cabin you will be inhaling some the exhaled air (and viral load) from any passengers present in the past 18 minutes! SecureAire™ provides safe breathing zone air in elevator cabins.

*Healthy Buildings America, International Society of Indoor Air Quality, January 2022*



### The Only Optimized IAQ Solution for all Airborne Pathogens and Contaminants

The simple principle of creating polar molecules and charged particles is the basis for SecureAire's™ ACTIVE Particle Control Technology Platform. The ability of the SecureAire™ System to effectively treat any airborne contaminant is consistent with documented 3rd Party case studies where monitoring, removal, reduction, and INACTIVATION has been achieved.

### Bring Air Security to you, your family and friends, your clients, employees, and customers with ACTIVE Particle Control and Pathogen Inactivation Technology

For further information, please feel free to contact your local SecureAire Representative.

#### References:

<sup>1</sup> *American Journal of Infection Control*, 2020

<sup>2</sup> *Journal of Hospital Infection*, 2021

<sup>3</sup> Healthy Buildings America, International Society of Indoor Air Quality, 2022.

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