



Purification System Kills Over 99.9% of RNA Viruses

<https://www.infectioncontrolday.com/sterile-processing/purification-system-kills-over-999-rna-viruses>

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- [Sterile Processing](#)

Health care settings such as hospitals, clinics, assisted living facilities, and physician offices depend on the circulation of clean air that is free of mold, bacteria, viruses, and fungi. And *the* primary health care setting—people’s homes—also depends on clean air circulation. In both hospitals and residences, clean air can help people with allergies, asthma, and challenged immune systems, among other issues.

Aerus, a Dallas-based manufacturer of air purifiers, says that its **ActivePure®** purification unit can rid circulating air and surfaces of most pathogens. The ActivePure® system has been proven effective against both DNA and RNA viruses, such as H1N1 (swine flu), H5N8 (avian bird flu), and MS2 bacteriophage; and it works to do so in the air and on surfaces.

ActivePure® also has the ability to denature volatile organic compounds and gases, such as nitrous oxide and formaldehyde, Joe Urso, CEO of Aerus, told *Contagion®* “It denatures them by oxidizing them and that’s originally what it was designed to do in the early days with the technology.”

According to Urso, the technology upon which ActivePure® relies was originally developed by NASA. That technology has been enhanced and greatly improved by Aerus, Urso says. “Our technology is a multi-generational advancement on what is commonly called photocatalytic oxidation.”

ActivePure® harnesses microscopic oxygen and water molecules in the air as they pass through the unit. The unit includes a honeycombed matrix where the molecules are transformed into friendly yet powerful oxidizers that seek out and destroy contaminants, even ones that hide in hard to reach cracks and crevasses, according to Urso. It also cleans surfaces and clothes.

“It’s being implemented across all industries, including medical, hospital and health care facilities,” says Urso. “The primary goal is to mitigate the exposure to infectious pathogens thereby reducing the risk of disease transmission. There’s a big focus on operating rooms and intensive care units where hospital-acquired infections are a big risk to patients.”

According to the company, ActivePure® has been proven to destroy over 99.9% of RNA viruses, and it has been used by professional and Olympic athletes around the world to help protect them.

“Our technology creates hydroxyls that go into the atmosphere of a room and, under the law of gases, actually disperse into the entire room to help clean the air and surfaces from pathogens,” says Urso. “That’s what makes it unique.” Other technologies only work if the pathogen is sucked into the appliance, which is inefficient and takes too long.

Urso says that the company has received clearance from Health Canada to install ActivePure® purification units in Canadian hospitals. “We are also working on hospital installations in Brazil, Poland and Italy in collaboration with their national hospital systems,” says Urso.

ActivePure® is the only air cleaning technology awarded the prestigious Certified Space Technology seal by the Space Foundation and honored and inducted into the Space Technology Hall of Fame.

The ultimate goal?

“To add an extra layer of significant protection to everyone in public or private spaces, including healthcare providers, patients, patrons, employees and families,” Urso says. “Our technology works 24/7 in occupied places to safely and materially reduce exposures to pathogens that can be harmful to people and pets.”