



## How UV protects people and property from Swine Flu

### UV-C destroys Swine Flu virus in the air stream

Swine Flu is caused by an influenza A virus subtype known as H1N1. Influenza A viruses are highly susceptible to the [germicidal effects of ultraviolet light](#) in the 'C' band. Technically speaking, UVC does not kill the virus; UVC inactivates the virus. Inactivated viruses have irreparable DNA damage caused by UVC and are unable to reproduce and are therefore, not infectious.

### Is Swine Flu airborne?

Existing research on [influenza transmission](#) is not definitive. However, there is a growing consensus amongst scientists that influenza viruses are [transmitted through the air](#). All research agrees that influenza viruses are airborne as they are expelled by infected people via coughs, sneezes and normal respiration. Some of these infectious droplets settle on surfaces, some of the droplet nuclei travel through the air.

Swine Flu is transmitted when a person inhales the infectious nuclei or touches the droplets and then transfers the virus to the body through the nose, mouth or eye.

So the real issue isn't if influenza is airborne, the debate focuses on how the virus enters the body either by inhaling flu aerosols or by contact and transfer to the body.

Most researchers say airborne and contact transmission both play a role, but are not certain of each mode's relative contribution to human infection.

### The VIGILAIR® Solution

When it comes to [pandemic planning](#), there is no panacea. The best strategies involve a comprehensive approach to reducing pathogens in the built environment and preventing transmission of disease. VIGILAIR® is a proven technology that is currently used for pathogen control and biodefense in hospitals, research labs and other high profile government buildings.

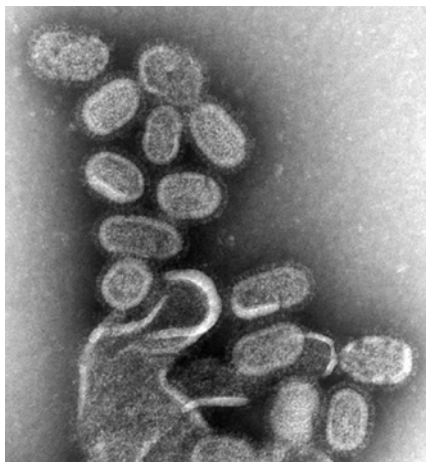
VIGILAIR® captures and destroys pathogens such as H1N1 viruses as they circulate through the HVAC system. Each VIGILAIR® system is designed to yield a predictable kill rate on

specific pathogens. Engineering and design are crucial for VIGILAIR® [Pathogen Control](#) and [Biodefense](#) systems. Airborne inactivation of viruses such as H1N1 requires a specific energy intensity and exposure time (also known as the 'dose'). Without proper scientific design, UV systems will not deliver a strong enough dose to have any effect on the H1N1 virus.

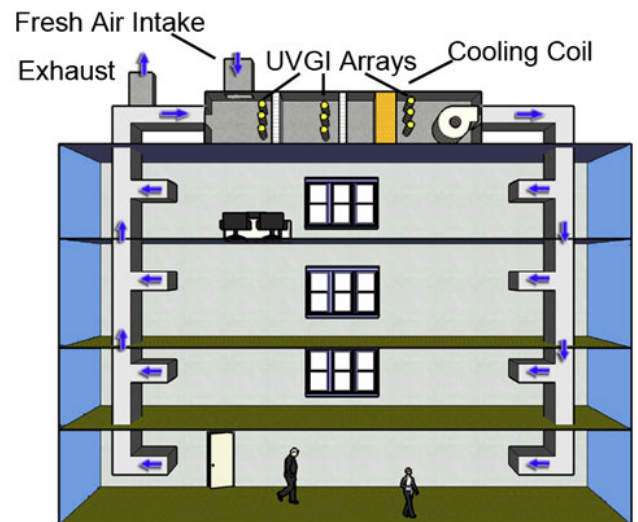
VIGILAIR Systems, Inc. is the only UVGI manufacturer that has performed UVGI irradiation tests with live infectious agents including Anthrax, [Avian flu \(H5N1\)](#) and the [SARS](#) virus. The VIGILAIR® Biodefense system is the only UVGI technology to earn the Department of Homeland Security's '[designation](#)' as a [Qualified Anti-terror Technology](#).

### For Architects and Engineers

In light of the recent Swine Flu outbreak, you may be asked if there are any engineering controls to help prevent or lessen exposure to H1N1. While no one [individual tactic](#) can eliminate virus transmission, there are steps to lessen exposure to the virus. VIGILAIR® is a proven technology that reduces the concentration of infectious microorganisms within buildings. VIGILAIR® is an evidence based design tool that you can recommend to your clients as they seek innovation solutions to the challenges caused by A(H1N1).



H1N1- Swine Flu Virus



A building's ventilation system acts like lungs, circulating and filtering air. Microbial contamination can be spread by the ventilation system throughout the building.

### VIGILAIR Systems, Inc.

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