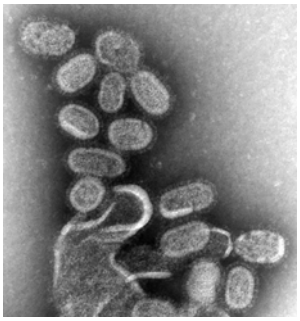
Building a building's pandemic protection

When a disease outbreak strikes a city, your office or apartment building can help protect you from becoming sick. Unfortunately, poorly designed and maintained buildings can actually help spread illness to its occupants.

It makes sense. According to the EPA, Americans spend 87% of their time indoors[1], where pollution levels are routinely 2 to 5 times higher than outdoor pollution levels[2]. These findings underscore the fact that our indoor environment plays a major role in our health. This is especially critical during an epidemic or pandemic when indoor air pollution includes infectious airborne microorganisms.

The Influenza A/H1N1 airborne threat



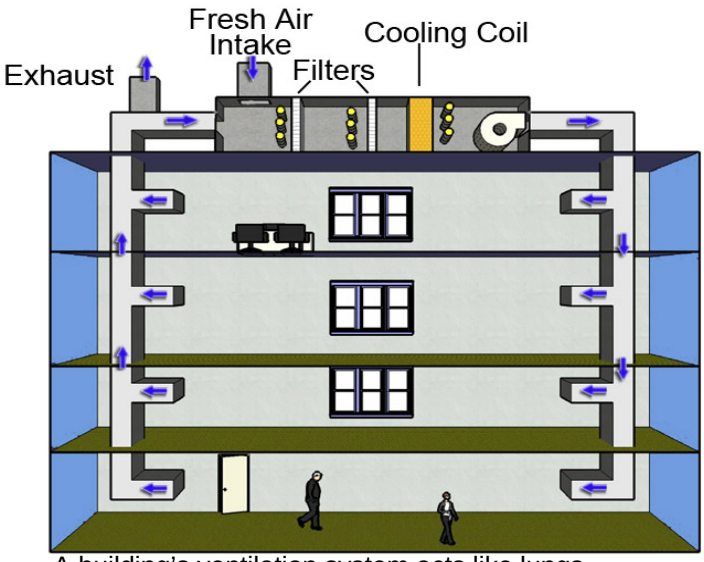
Air plays a major role in the transmission influenza A infection. Research[3,4,5,6] from as far back as the 1940's through today shows that influenza A viruses are transmitted via the air. Influenza A/H1N1 viruses become airborne as they are expelled by infected people via coughs, sneezes and normal 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. Recent studies[7-14] indicate that a building's Heating, Ventilation and Air Conditioning (HVAC) system can contribute to the spread of disease.

The VIGILAIR® Solution

Think of the HVAC system as your building's respiratory system. Just like your lungs, the HVAC system supplies and filters air. When your lungs are infected, pathogens are distributed internally and you become sick. The same applies to your building's ventilation system—when it is contaminated with microorganisms it can distribute them internally and cause illness.



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

Installed within a building's HVAC system, VIGILAIR® technology incorporates Ultraviolet Germicidal Irradiation (UVGI) and filtration to inactivate and remove pathogens within the HVAC air stream. UVGI damages the DNA of viruses, bacteria and fungi, preventing the microorganisms from being infectious.

By disinfecting the air as it passes through the HVAC system, VIGILAIR® significantly reduces the amount of infectious microorganisms that are circulated throughout the building.

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.

Plan, not panic

While no one measure can completely prevent H1N1 virus transmission, there are steps to lessen exposure to the virus. The buildings we work and live in can be the first line of defense against the spread of pandemic disease. VIGILAIR® is an important component of a comprehensive pandemic plan. Will the recent H1N1 outbreak cause major casualties? Only time will tell. But health experts believe that a serious pandemic capable of spreading illness worldwide is going to occur, although they are unable to predict when.

Now is the time for planning and preparation. VIGILAIR® technology should be a part of your pandemic planning, especially if you live or work in a large commercial building.

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