



HEPA Filter Replacement

Air quality control is very critical in any hospital setting because the air can be a source of a variety of different disease-causing pathogens, and if not effectively filtered, may possess a risk on the lives of the patients, staff and visitors.

The Risk of Infection

When heating, ventilation, and air conditioning (HVAC) systems are equipped with High efficiency particulate air (HEPA) filters, they can easily over time collect and trap hair, skin cells, debris and dust therefore, acting as a reservoir and food source for a wide variety of microbes such as methicillin-resistant *Staphylococcus aureus* (MRSA), *Pseudomonas aeruginosa*, and aspergillus mould. The contaminated air then can circulate throughout the hospital premises, possessing a high risk to staff, visitors and patients, especially the most vulnerable such as the elderly and immunosuppressed patients. In order to improve air quality and minimise transmission of harmful microbes, HEPA filters that have been installed for more than 6 months must be replaced. As part of an infection prevention and control strategy, it is essential to ensure HEPA filters remain performance-efficient and able to keep consistency of pressure within hospital rooms as well as maintaining high level of filtration.

The Most Susceptible

The control of indoor and outdoor air quality plays a critical role in preventing and reducing infection transmission in different hospital settings including operating theatres, patients' wards, intensive care units and outpatients' departments. Immunosuppressed and immunocompromised patients, are highly susceptible to the adverse effects of various airborne chemicals and microbes and an infection can result in a longer hospital admission and reducing hospital bed capacities, therefore increasing the cost of care. For example, Aspergillus mould can give rise to invasive aspergillosis, and these microbes are known to thrive in HVAC systems and HEPA filters that have been over-used and not replaced hence increasing the risk of acquiring a nosocomial infection.



Did you know...

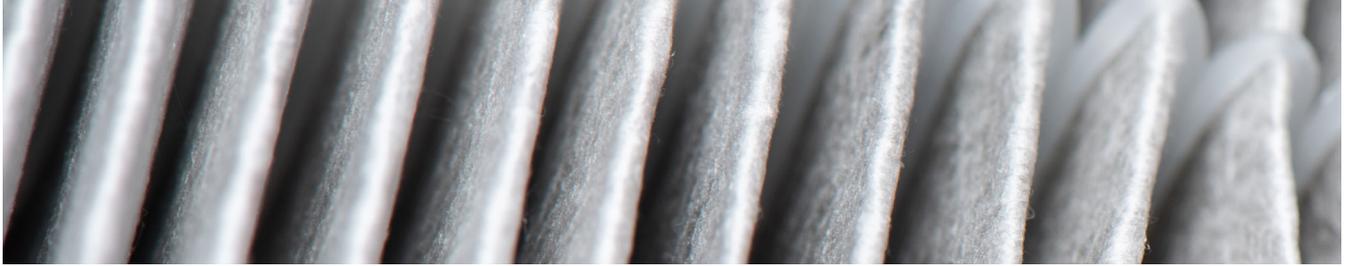
1/3

MORE THAN **ONE THIRD** OF ALL NOSOCOMIAL INFECTIONS POSSIBLY INVOLVE AIRBORNE TRANSMISSION¹

- Contaminated air with microbes and particulates can cause respiratory tract complications such as pneumonia²
- The risk of a leaking HEPA filter has already been reported showing a correlation between increased microbiological counts and leaking HEPA filters³
- Poorly maintained ventilation systems may eventually act as a source of, rather than as a defence against, aerosol/airborne infection⁴

Sources: See overleaf.





How Inivos Can Help

Our HEPA filter replacement service can be delivered as both an on-call service for emergency situations, a specific area or project, or as a scheduled managed service contract. Our work is carried out in compliance with all relevant health and safety regulations⁵.

This enables us to reduce the risk of a patient acquiring an infection whilst in hospital, by reducing the number of reservoirs available for dangerous pathogens to multiply in.

Our Service

Our highly-trained mobile technicians provide the full service including replacing of HEPA filters and providing a certificate of the filter specification and date of replacement and can be used in conjunction with our other services including filter integrity testing and AHU cleaning. Through our managed 24-hour on-call helpline a fast turnaround on all services can be achieved minimizing clinical downtime.

Pre-Replacement Risk Assessment

We perform all the required risk assessments such as isolation of filter and condition assessment to ensure we deliver our service safely.

Filter Change

Our qualified technician will effectively and safely remove your worn, dirty and over-used filters and will replace them with new filters that have been tested to the new ISO 16890 standard.

Post-Replacement Assessment

After replacing HEPA filters, we assess the newly installed filters and provide certification for the changed filter. We can also provide a maintenance contract for replacement of your HEPA filters to give you assurance of the efficacy of your filters.

Our Approach

As experts in understanding the importance of infection prevention and control, we pay particular attention to our methods of work to ensure the process is effective by controlling the risk of cross contamination between areas.

Our knowledge and experience means we take care of sealing and isolating ducts and AHUs so as to prevent cross contamination between filters.

Why Inivos?

Not only are we an established and trusted name in healthcare, with facilities and hospitals around the world relying on our advanced hydrogen peroxide vapour and UV-C light disinfection robots, we also offer a **level of expertise second to none**, and **unique services**, including call-outs, pre-cleaning assessments and decontamination.



Multiple areas included



Evidence based processes



Validated assurance



Dedicated project management

Helping you provide patient-ready spaces with on-call decontamination and managed services



Our Inivos services are easy to arrange and tailored to your requirements:

Call **0845 270 6690** or email **customerservices@inivos.com**

Sources: ¹ <https://cmr.asm.org/content/27/4/665>. ² <https://www.sobieskiinc.com/blog/hepa-filtration-keeps-hospitals-and-health-care-facilities-breathing-easy>. ³ https://www.cleanroomtechnology.com/technical/article_page/Integrity_testing_of_HEPA_filters/51404. ⁴ Eames I., Tang J., Li Y., Wilson P. Airborne transmission of disease in hospitals. J. R. Soc. Interface. 2009;6:S697-S702. ⁵ L24 (HSE), EN15780 (BSI), LPS 2084 (BRE), HTM 03 01 (DOH), TM26 (CIBSE), TR19 (BESA).