

From Biological Defence to a Healthy Office Environment

Why Use the Inov8 Solution?

- Protects staff against airborne infection inside offices.
- Attacks airborne viruses, bacteria and fungi in a continuous manner.
- Eliminates bad odours.
- Low energy consumption.
- Discreet, silent and easy to use.



For employers, high staff sickness levels often mean serious financial implications. For this reason, there is a wide variety of technologies used to clean the air quality in offices and homes. These include HEPA air filters, electrostatic air cleaners and even UV purification systems.

Each one of these air cleaning technologies is designed to solve a particular problem associated with air quality. HEPA filters for example, effectively remove up to 99.97% of all particulates such as pollen and dust that pass through the filter. However the HEPA filters need to be changed to remain effective and start to lose efficiency as soon as they are installed. Electrostatic cleaning technologies use charged plates to clean the air that passes across them although they need frequent cleaning to maintain efficiency. These technologies cannot remove chemicals or odors. To address this issue, some air purifiers utilise activated carbon or UV in combination with a HEPA filter.

If protection from infectious microorganisms, allergies, damp or cigarette smells is sought then a reaction based air cleaning technology is required. Inov8's Air Disinfection Unit, AD, is a proprietary system which offers unprecedented levels of microbiological air disinfection aimed at providing a high quality indoor air environment.

The AD replicates the natural disinfecting quality of fresh air, which was successfully applied to purge hospital wards of superbugs. It works by pumping a continual stream of reactive hydroxyl radicals into the atmosphere, killing microbes within minutes. In experiments where rooms were flooded with more than a billion bacteria, levels were effectively reduced down to zero within an hour.

This phenomenon was discovered **more than 30 years ago** through experiments at the United Kingdom government's chemical and biological defence labs at Porton Down. It was established that when outdoors, microbes are killed by hydroxyl radicals, highly reactive agents constantly produced through natural reactions between airborne ozone and organic scented chemicals from plants such as pine trees.

Through the AD, Scientists at Inov8 have recreated this effect with a small device that constantly generates these radicals. To do this, it draws in oxygen and exposes it to electric currents producing a cold plasma rich in ozone. The hydroxyl radicals are generated by reacting the ozone with pre-loaded supplies of scented chemicals, called terpenes, in cartridges that require replacement every three months. The ozone and terpenes are retained within the device and not released into the room.



Satisfactory Results for the Inov8 AD

"As a busy General Practice with constant throughput of people with a variety of infections the ability to sanitise the air space for the benefit of patients and staff alike provided by the Inov8 AD was irresistible.

It has been operated on the ground floor and basement level. The immediate benefit was that the smell of damp and, intermittently of drains, in the basement was obliterated and all concerned reported a much more pleasant and acceptable working environment.

We are looking forward to next winter with greater confidence."

*Dr Peter King Lewis
King Lewis Family Practice
Chelsea Consulting Rooms*

"Harley Street Doctors Organisation fully supports the use of the system as an additional means of infection control against airborne pathogens and dust mite allergens.

The patients and staff have noticed a better quality of air and freshness within the area covered by the system.

We have also observed that the plants in the room are much healthier and appear greener. The flowers are lasting longer.

We highly recommend this equipment for use in clinics and offices. Our dentist who has set up a private clinic will be ordering one straight away."

*Professor Sam Lingam
MD (HONS) FRCPCH FRCP DCH DRCOG
Consultant Paediatrician*

In 2008, air disinfection trials were conducted at the offices of a large financial services company in Carlisle, United Kingdom. The trial was undertaken over a two week period in July in an office measuring 1500 square feet and populated by 15 people. Base-line samples were taken before running an AD unit in the office for a period of one week. The results clearly demonstrated the ability of the AD unit to substantially reduce the airborne threat of infection in an office.

In 2009, a leading recruitment company in the UK trialed the AD air disinfection device and reported a dramatic reduction in the spread of infections at the company's headquarters. Jonathan Harvey, senior manager at the recruitment company F10 commented: "We were aware of the success that Inov8 Science has achieved in the healthcare sector, so we saw this as an opportunity to provide a higher level of protection for our staff and to reduce staff absence through illness. We installed an Air Disinfection (AD) Unit from Inov8 Science within one of our main offices during April 2009 and since that time we have witnessed a substantial drop in the levels of staff sickness. We have the AD unit on a timer so that it provides automatic protection between 6am and 8pm. At the beginning of 2009, when the AD was first installed, we were unaware of the forthcoming Swine Flu pandemic so the added protection that the unit provides has been an additional bonus."

Summarizing feedback from the trial at F10, Jonathan Harvey says, "Since the unit was installed, we have noticed that when staff are ill they have not passed their illness to their colleagues. For example, some individual staff have had Swine Flu but they have not passed it on to their colleagues and we are convinced that the AD unit is the reason for this."

More recently, in 2010, the AD was installed in several private doctor's practices, with a constant influx of people with a variety of infections, where several tangible benefits were perceived including the removal of smells such as damp in basements areas.

In conclusion, the use of the AD technology in offices can rid the indoor atmosphere of unwanted odours and allergens and more importantly it can help reduce staff sickness levels. This will result in substantial financial savings for employers. The cost of the AD Air Disinfection units is therefore negligible in comparison with the potential costs associated with staff absenteeism due to sickness.

**For all sales enquiries,
please contact
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for Offices**

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