

# A Public Guide to Ventilation and Helping to Reduce the Spread of Coronavirus in Your Home

Coronavirus is spread through the air by droplets and smaller particles (known as aerosols) that are exhaled from the nose and mouth of an infected person as they breathe, speak or cough. They behave in a similar way to smoke but are invisible.



The majority of virus transmissions happen indoors and, if there is no fresh air, particles can remain suspended in the air for hours and build up over time. The longer people spend in the same room as these particles, the more likely they are to become infected.

**New government advice highlights how letting fresh air into indoor spaces and regularly ventilating enclosed areas can reduce the risk of infection from coronavirus by over 70%.**

This guide sets out to explain how ventilation can work effectively in your home to reduce the risk of virus transmission and protect health.

# Understanding home ventilation

An ideal indoor environment for a home is one which is energy efficient whilst being well ventilated. Effective ventilation must ensure that fresh air comes in from outdoors and is exchanged for indoor air which is then extracted outdoors. This will ensure that moist and stale air is removed and replaced with fresh, clean air to keep you and your home healthy.

## Opening Windows

The government advice is to open windows for short, sharp bursts of 10 to 15 minutes regularly throughout the day or leave windows open a small amount continuously to remove any infected particles lingering in the room.

It should be noted that this advice may not be appropriate for all households all the time due to cold temperatures, heat loss, security or pollution and noise from busy roads. Also, indoor air quality deteriorates very quickly when windows are closed again and airborne particles start to accumulate.

## Extractor Fans

Extractor fans provide an effective ventilation and air exchange solution and every bathroom, kitchen, toilet, utility or wet room should have a working extractor fan. If this is not the case, or fans are not working effectively\*, you should have them professionally installed or upgraded to ones that, at the very least, have in-built timers and sensors.

\*You can test the effectiveness of your extractor fans by holding up a piece of paper when they are turned on. If the paper doesn't stick to the fan then it should be replaced and upgraded.



Understanding how your home is ventilated is critical to optimising your indoor air quality, reducing the transmission of viruses and protecting health.



## Trickle Vents

Trickle vents are small openings, usually found above window frames, and are essential for extractor fans and other forms of ventilation and air circulation to work effectively. If your home has trickle vents, it is essential that they are kept open and free of debris in order that the air can freely circulate and to prevent condensation and mould growth.

## Whole Home Ventilation Systems

Whole home ventilation systems (sometimes referred to as mechanical ventilation) operate by diluting and dispersing low levels of water vapour, airborne particles and other pollutants and supplying fresh air to the entire house.

You may already have a whole home system installed, or specialist installers can advise you on suitable retrofit options. Such systems are the most effective way to make sure that every room has adequate ventilation, and can sometimes include heat recovery to improve energy efficiency.

It is important that whole home ventilation systems are serviced and the filters cleaned regularly to ensure they are operating efficiently.



**“Fresh air must come from outdoors – recirculating air just means the aerosols containing the virus move around the same room rather than being extracted outdoors.”**

**Ventilation units or any household systems that use outdoor air can be just as effective as opening windows or doors as long as they are limiting the recirculation of the same air”**

Professor Catherine Noakes, Leeds University.

## Finding out more about ventilation systems

If you are thinking about having a ventilation system installed, replaced or upgraded, you can visit the [BEAMA website](#). The BEAMA Ventilation group represents leading UK manufacturers and suppliers of ventilation products and equipment which deliver the highest standards of build quality and performance. The group is dedicated to improving the indoor environment of buildings through effective, low energy ventilation systems, and to improving standards of installation and commissioning.

**Government advice recommends that any household systems that use outdoor air, including kitchen or bathroom extractor fans, are used correctly and regularly as an additional method to remove infected airborne particles.**

Airing indoor spaces is particularly important when:

- people have visitors (when permitted) or tradespeople in their home, for example for construction or emergencies
- someone from a support bubble is meeting with another household indoors
- a care worker is seeing a patient indoors
- someone in the household has the virus



Ventilation to provide fresh air in enclosed spaces is just as important as the other actions, so remember this as well as 'Hands, Face, Space'. These are the most effective ways we can all control the spread of the virus.

**Visit [gov.uk/coronavirus](https://www.gov.uk/coronavirus) for more information.**

"We all spend more time inside over the winter, so ventilation is essential"

Public Health Minister, Jo Churchill



"As we approach winter, and inevitably spend more time indoors, fresh air is extremely beneficial. For COVID-19, it is important to ventilate indoor spaces if someone in your home has the virus as this can help prevent transmission to other household members".

GP Dr Amir Khan