

Good ventilation – mechanical ventilation – fresh air

We have all heard of “hands, face, space, fresh air” but what does fresh air mean? This is a short guide about how to improve the flow of air in your setting to avoid transmission of Covid-19.

When we talk, raise our voices, cough, sneeze, sing, respiratory droplets leave our mouth and nose. Some droplets are large and medium-sized and gravity makes them fall to the ground – if you are more than 2 metres away from other people then there is less chance of you being infected by these droplets.

Small droplets can be suspended in the air and build up over time – the longer you stay indoors, the more people in the room, the more droplets in the air. Spending a long time indoors with other people increases your risk of being infected in this way. Fresh air through natural or mechanical ventilation can swap the stale air full of invisible droplets with clean air which it is safer to breathe. This guide is about mechanical ventilation – if you use natural ventilation in your setting then please see that guide. You may need to use mechanical and natural ventilation together.

Talk to the right person

- ☑ Who in your setting is responsible for maintenance or facilities? This is a technical area so make sure you speak to the right person in your setting.
- ☑ You should feel assured that the mechanical ventilation systems are well maintained in line with manufacturer’s instructions and provide maximum air exchange and minimum air recirculation.
- ☑ If your system is complex, please refer to CIBSE guidance <https://www.cibse.org/coronavirus-covid-19/emerging-from-lockdown#5>

Who is the manufacturer?

- ☑ Always follow the manufacturer’s instructions.
- ☑ If you have lost the instructions you can contact the manufacturer customer services by telephone or look on their website to see if they can provide a copy of the instructions for the device you are using.
- ☑ If the device you are using is very old, out of warranty, then seek advice from your ventilation engineer.

How many people in the room?

- ☑ Mechanical devices may automatically re-set to adjust air flow for lower room occupancy.
- ☑ You may need to manually over-ride these settings for maximum air exchange.

How long do units run?

- ☑ Sustainability considerations may mean that mechanical ventilation systems are set automatically to shut off outside of usual hours of operation of the setting. You may want to over-ride this setting manually or reset the automatic settings so that full air exchange is achieved at the start/end of the day.

Does your unit provide air exchange?

- ☑ Make sure your mechanical ventilation system is set to maximise fresh air exchange and minimise air recirculation. 6 air changes per hour (6ACH) is a good standard as it means the air is replaced every 10 minutes.
- ☑ Air conditioning units may not provide air exchange – some air conditioning units mask poor ventilation by making the air feel cooler and breezier but recirculate the existing air in the room.
- ☑ If your ventilation system cleans or filters the air, check what type of filter and if these are regularly changed in line with the manufacturer instructions. The HSE advises the most suitable units to use are high-efficiency filters & ultraviolet-based devices. HEPA filters and MERV13 filters have been shown to reduce the amount of virus in the air. Air filtering or cleaning alone is not the same as or as good as ventilation.
- ☑ Many air conditioning units recirculate the air in the room and this could risk spreading respiratory droplets further. Try to avoid sitting downwind of the air flow of these types of units.

Room temperature

- ☑ Maintaining room temperatures to a comfortable level may be difficult without heating as well as ventilating the space
- ☑ Check with your health and safety representative about what temperature you should aim to achieve in your workplace

<https://www.hse.gov.uk/temperature/>

<https://www.gov.uk/workplace-temperatures>

Dress codes and PPE

- ☑ We all feel the heat and the cold differently and some people feel the cold more than others there is guidance for minimum workplace temperatures (see above)
- ☑ Even at acceptable minimum levels some people may feel cold more than others, particularly if they are older and/or female and/or lower bodyweight and/or have medical conditions. These people may need reasonable adjustments to feel comfortable.
- ☑ In workplaces or schools with uniforms or dress codes it may be necessary to relax dress codes so employees/students feel comfortable by adding extra layers
- ☑ In workplaces or settings where PPE is required staff may feel uncomfortably hot and more attention may be needed to indoor temperatures

Vehicles

<https://www.gov.uk/guidance/coronavirus-covid-19-safer-travel-guidance-for-passengers>

Check out our Business Resources page for useful posters and checklists for your business
www.sheffield.gov.uk/home/business/coronavirus-business-resources

For general support for businesses at this time visit
www.sheffield.gov.uk/coronavirus-business,
call the Business Sheffield Team on **0114 224 5000**
or email us at **businesssheffield@sheffield.gov.uk**