Ventilation checklist for residential settings

Communal areas:

Ventilation principles to reduce the spread of respiratory infections include two main components:

- Increasing air exchange, and
- Decreasing circulating viral load.

All of the strategies outlined below should be considered to minimise infection transmission.

Is there a central heating, ventilation and cooling (HVAC) system?	
No	Explore other strategies below.
Yes	Does it incorporate fresh air?
No	Explore other strategies below.
Yes	Can the amount of fresh air be increased?
No	Explore other strategies below.
Yes	Is it turned up to maximum fresh air?
No	Request that the fresh air intake be increased.
Yes	Explore other strategies below.
Tip	*If you are unsure if you have a HVAC system, or if it incorporates fresh air, contact the team who maintains your heating or cooling systems. This may be your facility services manager, engineering or maintenance team.*
	Record contact details for this person here for easy access in the future: _____

Are there windows or external doors that can be safely opened in communal areas? *These increase air exchange*	
No	Explore other strategies below.
Yes	Open all windows and external doors where resident safety and comfort is not compromised.
Tip	*It is more effective to open many windows a small amount than just one window.*
	Turn on heating or cooling systems to keep residents comfortable when windows/ doors are open.

Are there air filtration (air scrubber) units available? *These help remove virus from the air.*	
No	Consider buying or renting devices
Yes	Prioritise air scrubber placement in the following order.
	1. In COVID positive resident rooms: • *If a COVID positive resident is a persistent wanderer, also consider locations they may frequent, e.g. communal lounges.* • *If there are more positive residents than air scrubbers, priority should be given to recently diagnosed or symptomatic cases.*

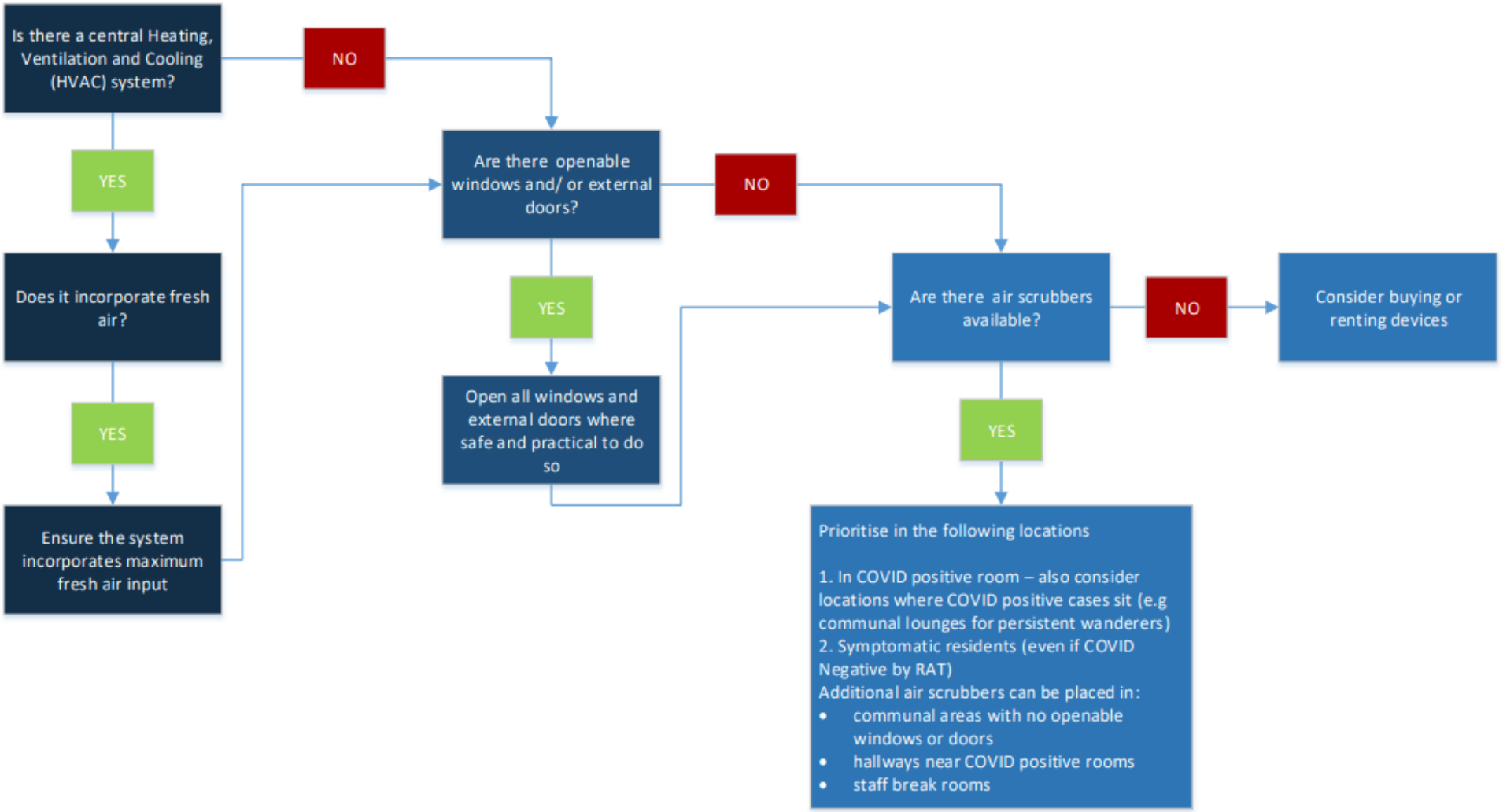
	2. Symptomatic but COVID negative resident rooms. • *Remember - air scrubbers can be used for all respiratory infections, not just COVID.*
	3. Place additional air scrubbers as required in the locations below: 3.1. In communal areas if there are no openable windows or doors. 3.2. In hallways near COVID positive rooms. 3.3. In staff break rooms if there are no openable windows or doors.
Tip	*Air scrubbers are most effective when they are placed near infectious sources.*
	Consider marking a floor plan for where air scrubbers can be placed in resident rooms, communal areas and staff rooms as part of your COVID safe plan.
	See Appendix 1 for further information.
Are there split systems, ceiling fans in communal areas? *These will move air around, but do not improve air exchange or remove virus*	
YES:	Use this for resident comfort, in conjunction with open windows and external door or air filtration devices to assist indoor air movement and distribution.
Tip:	*Turn split systems and ceiling fans on the lowest possible setting if doors or windows are unable to be opened and air filtration devices are not available to be placed in these areas.* *Split systems and ceiling fans can be used if windows are opened and/ or air filtration devices are operating.*

Frequently asked questions about resident rooms:

	COVID positive or resident with respiratory symptoms	COVID negative
Can the room door be open?	**NO,** *this is not recommended* ***Tip**: If resident is insistent or non-compliant with keeping door closed, open the door as little as possible.* ***Remember:** An open door of a COVID positive resident can increase transmission risk to residents in adjacent rooms.*	**YES**
Can the window be open?	**YES** ***If door is open:** open window a small amount for resident comfort.*	**YES**
Can the ceiling fan be on?	**YES**	
Can the split system be on?	***Door should be closed*** ***If door is open:** open window a small amount/ turn fan or split system on low for resident comfort.*	
Can a pedestal fan be used?	**YES** **Door should be closed** **If door is open:** *open window and face fan towards the room in the direction of the window.*	**YES**
Should the bathroom exhaust fan be on?	**YES** ***Tip**: Run continuously, if tolerated.* • *If continuously is not tolerated, consider processes to turn on intermittently during the day*	**YES**
Can hydronic heating be on?	**YES**	**YES**
Should an air filtration (air scrubber) unit be placed here?	**YES,** *recommended* ***Tip**: Place near the COVID positive resident, Do not place near open window.*	**No** *Unless symptomatic*
***Tip:** Share this checklist with all senior staff, including the IPC lead, CCC, quality team and senior staff who work on weekends.*		

WESTERN Public Health Unit | Western Health

VENTILATION FLOW CHART: COMMUNAL AREAS



Appendix 1

Accessed from - https://content.health.vic.gov.au/sites/default/files/2022-06/faqs-ventilation-in-racfs-and-srs-v1-1-060622.docx 8.6.22

Frequently asked questions

Ventilation strategies to reduce transmission of COVID-19 in Residential Aged Care Facilities and Supported Residential Services

May 2022
OFFICIAL

Purpose

To provide guidance on ventilation strategies to reduce transmission of COVID-19 in Residential Aged Care Facilities (RACFs) and Supported Residential Services (SRS), including the use of air conditioning, heating, ventilation and air-conditioning (HVAC), fans and portable air filters (purifiers).

This guidance must always be read with consideration of current pandemic orders.

Key points

- Ventilation is required to maintain air quality in an indoor environment with the removal of stale air and the introduction of fresh air.
- A well-ventilated space can reduce the concentration of viral particles in the air, lowering the risk of aerosol transmission. To improve air circulation in an area, mechanical, natural, and augmented ventilation may be used.

What is ventilation and how can it help prevent COVID-19 from spreading?

Ventilation is the process of bringing fresh, outdoor air inside and letting indoor air outside to maintain or improve air quality.

The risk of getting COVID-19 infection is increased in crowded and poorly ventilated settings because the virus passes between people through infected respiratory particles in the form of droplets and aerosols, in poorly ventilated spaces infected aerosols can remain in the air or travel farther. Improving indoor ventilation reduces the risk of the virus spreading indoors.

Ventilation is not a standalone measure, it should be implemented as part of a package of infection prevention control measures, such as physical distancing, avoiding crowds, wearing a mask, frequent hand cleaning, staying home if unwell, coughing or sneezing into a bent elbow and vaccination.

How do I improve ventilation in the workplace?

First identify the type and effectiveness of the ventilation present in the workplace. When you are inside and have natural or minimal ventilation, open windows, or doors whenever possible. For better ventilation, open

windows/doors on opposite sides of a room to create a cross breeze. If creating a cross breeze is not possible, you can place a fan in front of an open window (facing to the outside) to increase air flow and push indoor air outside.

If the temperature outside is extremely hot or cold, you can open windows for ten minutes every hour to bring in fresh air.

Will an air conditioner provide good ventilation?

Most wall split systems, recirculation fans or window unit air conditioning systems do not provide ventilation. They are designed to reduce the temperature and humidity of the air. They do this by recirculating indoor air. Whenever using a wall or window unit air conditioning system, open windows as much as possible and for several minutes every hour to bring in fresh air from the outside and allow air to exit to the outside.

HVAC systems pull outside air inside. Make sure the settings on your HVAC system maximise the amount of fresh, outdoor air that is pulled into the system. HVAC systems should always be regularly inspected, maintained, and cleaned according to the manufacturer's recommendations.

If you are riding in a vehicle that has air conditioning, make sure to use the setting that brings in fresh air and when possible open a window.

Can fans be used safely inside?

Fans can be used if there is adequate natural or augmented ventilation.

Using a fan in an enclosed space can increase the spread of the virus that causes COVID-19. It is important to open windows and doors whenever using a fan to replace indoor air with outdoor air.

You can place a fan in front of an open window (facing to the outside) to increase air flow and push indoor air outside.

The use of ceiling fans can improve the circulation of air from outside and avoid pockets of stagnant air forming indoors. However, whenever possible open windows when using a ceiling fan to bring in air from the outside.

Do portable air filters provide ventilation?

No, but they provide clean filtered air.

All portable air filter units contain high-efficiency particulate air (HEPA) filters which help filter aerosols containing viruses and bacteria, including COVID-19, and other particles. They reduce but do not eliminate COVID-19 transmission, and when combined with other interventions such as physical distancing, vaccination, good hygiene, they can help to reduce the risk of transmission.

Where should I place the portable air filter?

- Place the unit so that the air intake is clear of obstructions. Most units draw air in from the front, so that you can place them near a wall or in a corner.
- To promote good air movement, portable filter units should be placed with a small amount of space around the sides and the back.

- Place the devices away from open doors and windows.
- Place the devices in areas of low movement (‘dead spots’) – this is often in corners or the points furthest away from any door and window openings.
- Do not place objects on top of the fan unit.
- Portable filter units should not be placed near open windows.
- Portable filter units should not be placed underneath extract grilles.
- Portable filter units should be placed in corners or dead spots to aid air circulation.
- If possible, portable filter units should be placed near supply grilles to aid circulation of the filtered air.
- Place portable filter units to ensure that they do not create trip hazards, such as from loose cables.
- Place portable filter units to ensure that they do not obstruct entry and exit paths, such as fire exits.

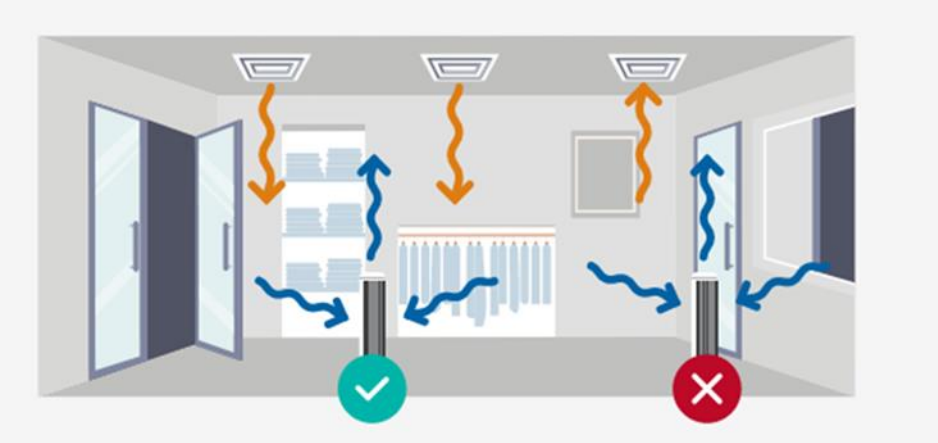


Fig. 1 Where to place a portable air filter

How do I use the portable air filter?

- Prioritise portable filters in spaces that have limited ventilation from other sources.
- Portable filters can be used in rooms with opening windows to assist the natural ventilation.
- Portable filters can be used in rooms with split air conditioning units. Air movement generated by the units helps move aerosols away from any areas of low air movement (dead spots).
- Place the devices in areas of low movement (dead spots).
- Run portable filters continuously on the high setting (not the automatic setting) while the room is occupied.
- Run portable filters for a minimum of two hours after a room has been used

How do I maintain and clean the portable air filter?

There are three elements of the purifier that require cleaning or replacement.

- **Surface** – clean the surface of the device regularly in line with the manufacturer’s instructions.

- **Pre-filters** – clean as per the manufacturer's instructions.
- **HEPA filters** – replace as per manufacturer's instructions (approximately every 6 to 12 months). All HEPA filters should be replaced at this time. It is recommended that used HEPA filters are placed in a sealed bag and then disposed of in general waste.

It is recommended that:

- air purifier maintenance be undertaken in a well-ventilated space
- single-use surgical masks and gloves are worn when cleaning pre-filters or replacing HEPA filters, and
- hand hygiene should be performed after cleaning and maintenance.

References

Victorian Department of Health – Infection PreventionControl resources – COVID-19
<https://www.health.vic.gov.au/covid-19/infection-prevention-control-resources-covid-19>

Coronavirus Victoria - Hygiene, Ventilation and Physical Distancing
<https://www.coronavirus.vic.gov.au/hygiene-physical-distancing#improving-ventilation>

World Health Organisation Coronavirus disease (COVID-19): Ventilation and air conditioning
<https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-covid-19-ventilation-and-air-conditioning>

To receive this document in another format phone 1300 651 160 using the National Relay Service 13 36 77 if required, or email Infection Prevention Control Advice and Response (IPCAR) <COVID19InfectionControl@health.vic.gov.au>.

Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne.

Available at Infection prevention control resources <https://www.health.vic.gov.au/covid-19/infection-prevention-control-resources-covid-19>.

Health Translations webpage <http://healthtranslations.vic.gov.au>