

Germs contaminating the air can spread infection through droplets. Using measures to improve indoor air quality can reduce the spread of airborne and droplet transmitted diseases. When added to measures such as physical distancing, hand hygiene, and the use of masks, the risk for spread of diseases such as COVID-19 can be significantly reduced.

Consider using some or all of the following strategies to reduce the concentration of germ particles in indoor spaces and improve indoor air quality.

General Measures to Improve Air Quality

- Increase the amount of fresh, outside air being brought into the building through central HVAC systems and PTAC (Packaged Terminal Air Conditioning) units.
- Exhaust contaminated inside air to the outside.
- Clean and filter the air within the building by using portable air filter.
- Reduce concentration of germs by using large-volume spaces with open windows and/or enhanced ventilation.
- Follow guidance for safe resident visitation.
- As safety and comfort allow, consider opening windows in resident rooms, visitation spaces and communal areas. Even cracking a window may improve ventilation.
- Run exhaust fans, such as in adjacent resident bathrooms, or kitchens as much as possible



Facilities with Heating, Ventilation, and Air Conditioning (HVAC) systems

- Ensure ongoing maintenance of HVAC systems and filter changes to ensure maximum introduction of outdoor (fresh) air intake.
- Consider using filters with a Minimum Efficiency Reporting Value (MERV) rating of >8, but ideally 13 or higher where HVAC system operation permits.
- In home settings, set the HVAC fan to “on” rather than “auto” to cycle the air through the HVAC system filter and increase air flow.

Portable air filters

Portable air purifiers, air cleaners, or air scrubbers equipped with a high-efficiency particulate air filter (HEPA) can reduce the number of airborne viruses. Consider adding a portable room air cleaner with HEPA to:

- Visitation and communal areas.
- Rooms where multiple residents are housed. Place portable air purifiers between beds. Air flow exhaust should be directed between beds and not across from one resident toward another.



Note: Air cleaner output should face away from open windows or HVAC intake vents to avoid sending clean filtered air out the window or into HVAC system.

Fans

Fans should be used with caution as they can spread infectious particles and increase air contamination.

- Fans should be placed so the direction of air flow moves from clean areas to dirty areas. For example, don't place a fan where it blows across trash to a patient bed.
- Avoid fans in small enclosed spaces
- Avoid blowing air across one person toward another
- When using a fan in a window, direct flow to the outside
- Avoid the use of fans placed directly on the floor as its airflow can lift settled germs from the floor into the air
- Run the fans on the lowest possible setting
- Ensure there is a system for appropriate cleaning and maintenance of each fan in use
 - Ensure cleaning and disinfection of fan blades and grid screens between residents
 - Consider using a cleaning log for each fan used in resident care and support areas

Resources

Additional information on improving air quality, optimizing air flow and use of barriers, can be found at on the CDC website: [Ventilation in Buildings](https://www.cdc.gov/coronavirus/2019-ncov/community/ventilation.html#Ventilation-FAQs)

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OHA COVID-19 Public Health Recommendations: Indoor air considerations for smaller spaces

https://sharesystems.dhsoha.state.or.us/DHSForms/Served/1e3725_R.pdf

CDC Ventilation in Buildings

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