



Tips to Improve Ventilation in Indoor Spaces

Sustainable Solutions

Increase ventilation through windows, doors and fans

Ventilation moves fresh air from outside to replace stale or stuffy air inside and clears odors, germs, and other harmful particles from the air.

☞ **Safely open windows and doors to increase airflow.** Even just cracking open a window or door helps increase airflow from the outside.

☞ **Use fans to increase the effectiveness of open windows.** Safely secure fans in a window to push potentially contaminated air out and pull new air in through other open windows and doors

Improve building-wide filtration



☞ Improve the **level of air filtration** as much as possible without significantly reducing airflow.



☞ Make sure the filters are sized, installed, and replaced according to manufacturer's instructions.



☞ Consider portable air cleaners that use **high-efficiency particulate air (HEPA)** filters to enhance air cleaning wherever possible.



☞ Consider **ultraviolet germicidal irradiation (UVGI)** as a supplemental treatment to inactivate the virus that causes COVID-19, especially if options for increasing room ventilation and filtration are limited.

Optimize Heating, Ventilation, and Air Conditioning (HVAC) settings



☞ Consult with an HVAC professional to ensure the ventilation system is serviced and meets code requirements as defined by **ASHRAE Standard 62.1**.



☞ Set HVAC systems to bring in as much outdoor air as your system will safely allow and reduce or eliminate HVAC air recirculation.



☞ Increase the HVAC system's total airflow supply to occupied spaces when you can. More air flow encourages air mixing and ensures any recirculated air passes through the filter more frequently.



☞ Disable demand-controlled ventilation (DCV) controls that reduce air supply based on occupancy or temperature. This way the air supply will remain constant throughout the day.



☞ For simple HVAC systems controlled by a thermostat, changing the fan control switch from "Auto" to "On" will ensure the HVAC system provides continuous air filtration and distribution.



☞ Consider running the HVAC system at maximum outside airflow for 2 hours before and after the building is occupied to refresh the air before arrival at the end of the day.

Resources and References

[Yale School of Public Health: Ventilation Key to Reducing Risk](#)

[CDC: Ventilation in Buildings](#)

[USEPA: Indoor Air and Coronavirus \(COVID 19\)](#)

[USEPA: Air Cleaners, HVAC Filters, and Coronavirus \(COVID-19\)](#)

[ASHRAE: CORONAVIRUS \(COVID-19\) Response Resources From Ashrae And Others](#)