

## COVID-19 Environmental Controls Resources\*

[Maine DOE Framework for Returning to Classroom Instruction](#) : Physical Distancing and Facilities

Six requirements must be met before schools may offer in-person classes. One requirement is Physical Distancing and Facilities:

“Adequate ventilation is required for classrooms, with schools having flexibility in implementation such as using properly working ventilation systems or outdoor air exchange using fans in open windows or doors. Groups in any one area, room, or classroom must not exceed the Governor’s gathering size limits.”

[Maine Indoor Air Quality Council](#) - An interdisciplinary, non-profit, non-partisan collaborative of professionals of all types that works closely with numerous public and private entities to provide education and technical resources on indoor air quality.

[CDC: Employer Information for Office Buildings](#):

Indoor air quality recommendations and strategies from the CDC

[EPA Guidance on Building Maintenance to Protect from COVID-19](#) :

A brief summary of ASHRAE recommendations.

[ASHRAE \(American Society of Heating, Refrigerating, and Air-conditioning Engineers\)](#):

Recommendations for optimizing air quality in buildings to prevent COVID transmission.

[ASHRAE COVID Resources Page](#) – Guidance, resources and links. ASHRAE has some paid resources that may be available via your HVAC service vendor.

This ASHRAE document focuses on ventilation, temperature, and humidity precautions against aerosolized COVID:

[ASHRAE Position Document on Infectious Aerosols](#)

[ASHRAE Ventilation Spreadsheet](#) - This spreadsheet allows one to perform the calculations of system Minimum Outdoor Air Intake...

[EPA- Air Cleaners, HVAC Filters, and Coronavirus](#)

Addresses the use of air cleaners and filters in homes, schools, and business.

It’s important to remember the EPA’s advice that, “By itself, air cleaning or filtration is not enough to protect people from exposure to the virus that causes COVID-19. When used along with other best practices recommended by CDC and others, filtration can be part of a plan to protect people indoors.” The EPA adds, “Consider using portable air cleaners to supplement increased HVAC system ventilation and filtration.”

[OSHA- Guidance for Preparing Workplaces for COVID-19:](#)

Explains how to create a safe working environment for employees. Includes addressing ventilation systems

**Journal Articles/ Studies:**

This [Environment International](#) journal article in PubMed advises countries to start considering airborne transmission more in their COVID guidelines. (June 2020)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7151430/>

[New England Journal of Medicine](#) article on the aerosol and surface stability of COVID. (March 2020) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7121658/>

In this [Human Genomics](#) article, researchers highlight possible genetic determinants of COVID-19 and the contribution of aerosol exposure as a potentially important transmission route

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7214856/> (May 2020)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7246840/> (April 2020)

In this report from [The Proceedings of the National Academy of Sciences](#) explores the lifespan of small COVID-19 droplets and the ramifications for transmission. (May 2020)

<https://www.pnas.org/content/pnas/early/2020/05/12/2006874117.full.pdf>

**\*Increasing a building's HVAC system up to the recommend MERV 13 level could put extra strain on the system leading to increased repairs and purchase of filters. Please consult with an HVAC expert.**