

Quicklist: Increasing Classroom Ventilation

Protect teachers and students with these simple steps

For buildings with an HVAC system:



Ensure thermostat fan is ON (not AUTO) to optimize airflow



Regularly **replace MERV filters** per manufacturer's guidelines (typically every 90 days)



Open dampers as much as possible to maximize the flow of outdoor air indoors



Install HEPA filters to increase the the rate of fresh air replacing indoor air (333-800 cfm or a typical 10,000 cubic foot classroom)

To calculate the cfm of HEPA filtration needed to achieve the recommended m_{χ} 2-5 ACH:

cfm of HEPA = [room volume (ft 3) x desired ACH (between 2-5)] / 60 (min)

For buildings with no HVAC system (natural ventilation only):



Open window(s) to increase airflow indoors, add a fan



Turn on HEPA filtration system to highest speed

Definitions

- 1. HEPA: High-Efficiency Particulate Air Filter; a type of air filter
- 2. cfm : cubic feet per minute; measure of airflow in/out of a room
- 3. ACH: Air Change per Hour; how many times the air is replaced in a space

For additional consultation: info@intrinsic-ehs.com

California Department of Public Health Interim Guidance for Ventilation...

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Increasing Classroom Ventilation Quick Checklist¹

We encourage collaborating with your facilities maintenance team to work on the following steps. *Section A* is specific to classrooms with HVAC systems and *Section B* is for classrooms that do not have access to an HVAC system and rely on natural ventilation such as open windows.

Section A: Classrooms with HVAC Systems

1. Ensure thermostat is in *Fan On* mode to allow for continuous airflow



2. Ensure MERV Filters are being replaced per manufacturer's recommendations (typically once every 90 days)



¹ <u>California Department of Public Health Interim Guidance for Ventilation...</u>

3. Open dampers to the greatest extent feasible, to maximize outside air



4. Consider installing HEPA filters to boost the number of air exchanges. For a typical ~10,000 cubic foot classroom, ~300-800 cubic feet per minute (cfm) of HEPA filtration provides between 2-5 air changes per hour (ACH).

To calculate how much cfm of HEPA-filtered air is needed to achieve 5 ACH:



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Section B: Classrooms with Natural Ventilation

1. Open windows to achieve a cross draft. If you are using fans to optimize outdoor air through windows, ensure they are not blowing directly on anyone.



2. Turn on HEPA to highest speed



3. Avoid the ionizer feature on the HEPA.



Want more information? Check out our free webinar on Expeditiously Assessing School and Workplace ventilation for COVID-19 Mitigation: <u>https://youtu.be/_lvpkuVoFZc</u>

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