

The CDC's Guidance for Preventing Infections in K-12 Schools

to Promote Health, Attendance, and Learning

Including the CDC's Recommended Everyday Actions to Take for Cleaner Air



Introduction

In 2024, the U.S. Centers for Disease Control and Prevention (CDC) issued guidance for "[Preventing Spread of Infections in K-12 Schools](#)" as a "[School Preparedness](#)" resource.

The CDC's guidance is designed to help schools and community partners plan and act to prevent the "spread of infectious diseases" such as those that cause respiratory and stomach infections.

By taking the [recommended everyday and emergency preparedness actions](#), schools can "maximize school attendance and its benefits,"

"promote learning," and "keep students, staff, families, and school communities healthy."

This summary from [Clean Air Allies](#) aims to increase awareness and assist school leaders, staff, families, and other community partners by:

- Overviewing the CDC's guidance
- Highlighting its indoor air quality (IAQ)-related recommendations

All material in quotation marks is drawn directly from the guidance or related CDC materials. A reference list and additional resources appear at the end of this summary.

How Infections Spread in Schools

Infectious disease "occurs when germs enter the body, increase in number, and cause a reaction of the body." Infected students or staff can spread germs to others, leading to new infections, by multiple means.



"Contact" (e.g., touching), either person-to-person or via contaminated surfaces such as "desks, lunch tables, faucets and sinks, and play items or shared instructional materials"



"Sprays and splashes ... when an infected person coughs, sneezes, or vomits, creating droplets which carry germs short distances (within approximately 6 feet)"



"Inhalation" of "tiny particles" of germs emitted by an infected person that "may be transmitted through air over greater distances and for a longer time"



"Through food or liquids (e.g., sharing with a sick person)"

The CDC: Schools Need Comprehensive Infection-Prevention Strategies

Schools Have a Responsibility to Protect Students and Staff

According to the CDC, "[K-12 schools are responsible for protecting students and staff members from a variety of threats.](#)"

Among the threats that can have "deep and lasting effects on physical and mental health, along with educational outcomes and economic impact" is "spread of infections."

Schools are [at particular risk of infectious disease spread](#) because they "often have high crowding indexes (number of people relative to the size of the confined space) and long exposure times, which can increase spread."

Thus, schools "should have plans in place that can help reduce illness and illness-related absenteeism by preventing the spread of common infections."

Schools Have Special Duties toward Students with Disabilities

Schools "[must provide reasonable modifications or reasonable accommodations, when necessary,](#)" for students with disabilities. These include students with an "individual educational plan (IEP), Section 504 plan, or Individualized Family Service Plan (IFSP)."

Schools should consider "[additional prevention strategies](#) ... to accommodate the health and safety" of these students and "protect their civil rights and equal access to safe in-person learning."







Reducing Spread of Infections Brings Community-Wide Benefits

"[Implementing comprehensive prevention strategies](#)" can "keep students, staff, families, and school communities healthy and provide supportive environments for in-person learning."

Beyond maximizing attendance and promoting "learning and health for all students and staff," "[minimizing illness](#)" can have the benefit of:

- "Maintaining student access to other important school services (e.g., meals, speech therapy, etc.)"
- "Protecting students' and staff's families and communities from infection"
- "Preventing parents and other caregivers from missing work to care for a sick child"

Prevention Planning and Implementation Should Include Multiple Layers

 <p>Everyday Actions to Prevent the Spread of Infections</p>	<p>“Everyday actions” to help prevent the spread of infections in school settings include:</p> <ul style="list-style-type: none"> • “Tak[ing] steps for cleaner air” • “Cleaning, sanitizing, and disinfecting” • “Hand washing” • “Respiratory etiquette” • “Vaccinations”
 <p>Sickness Policies and Practices</p>	<p>“Policies and practices” to “help slow the spread of infectious diseases” when “children or staff do become ill” support:</p> <ul style="list-style-type: none"> • “Having students and staff stay home when sick” • “Knowing when to return to school” • “Using personal protective equipment for staff caring for sick children”
 <p>Additional Strategies for Elevated Illness Activity</p>	<p>“Additional strategies” for times of “elevated illness activity,” calibrated to the “pathogen of concern and level of impact on community and community members,” include:</p> <ul style="list-style-type: none"> • “Masking and respiratory protection” • “Increasing distance and cohorting” • “Illness monitoring” • “Testing” • “Managing exposure”
 <p>Emergency Operations Planning</p>	<p>“Emergency operations” planning measures for “outbreaks, epidemics, and pandemics” include:</p> <ul style="list-style-type: none"> • “Establishing and maintaining an infection prevention and control (IPC) advisory committee,” including “local public health partners, ... parents/caregivers and other community partners” • Creating an “emergency operations plan (EOP) with an infectious disease section” • Considering “how to meet the needs of children with disabilities” • Considering “recovery plans that include items such as mental health supports” • “Engaging in periodic training and table top exercises that include all partners”

Cleaner Air Is a Top “Everyday Action” for Schools to Prevent Spread of Infections

The CDC considers “[taking steps for cleaner air](#)”—“bringing in fresh outside air, purifying indoor air, or gathering outdoors”—to be a “core prevention strategy” to lower risk of infections.

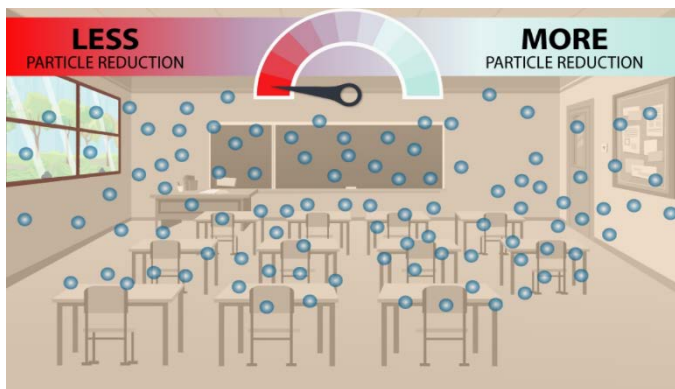
In fact, the CDC lists this as the first “[everyday action](#)” schools should take to prevent spread of infections.

How Cleaner Air Prevents Infections

How can taking steps for cleaner air reduce the spread of infectious diseases? By reducing the “[concentration](#)” of germ particles in the air.

“A lower concentration results in fewer [germ] particles inhaled into the lungs.” It “also reduces the amount of [germ] particles that people can come into contact with through their eyes, nose, and mouth, as well as the amount that can accumulate on surfaces.”

So explains the CDC’s “[Ventilation in Buildings](#)” guidance, referenced in “[Preventing Spread of Infections in K-12 Schools](#).”



Because outdoor air tends to have a lower concentration of germ particles than indoor air, bringing more outdoor air into a room can reduce these particles by “[dilution](#).” Heating, ventilation, and air conditioning (HVAC)

systems can be adjusted, or windows or doors opened, to [increase outdoor airflow](#).



The concentration of germ particles can also be reduced by [filtering them](#) out of indoor air by using:

- HVAC filters with a Minimum Efficiency Reporting Value (MERV) of 13 or better
- In-room air cleaners (portable or built-in) that combine a powered fan with a High Efficiency Particulate Air (HEPA) filter

The CDC uses the term “[ventilation](#)” to refer to both:

- “Introduction of outdoor air, indoor air movement, and dilution” of germ particles by mechanical (e.g., HVAC) or nonmechanical (e.g. open doors or windows) means
- Removal of these particles by “filtration through ... [HVAC] systems and/or in-room air cleaners”

Aim for 5 or More Air Changes per Hour

“When possible,” the CDC recommends “[aim\[ing\] for 5 or more air changes per hour \(ACH\) of clean air](#)” to help reduce the amount of germ particles in the air.

“Any combination” of HVAC, open doors and windows, and air-cleaning devices can be used to meet this target.

Specific Steps the CDC Recommends that Schools Can Take for Cleaner Air

According to the CDC in “[Preventing Spread of Infections in K-12 Schools](#),” schools should “take steps for cleaner air” as an “everyday action.” “Improving air quality can reduce the number of germs in the air by increasing airflow, cleaning the air, or moving gatherings outdoors.”

[Specific steps the CDC recommends](#) include:

- “Ensuring existing HVAC systems are providing the minimum outdoor air ventilation requirement in accordance with ventilation design codes”
- “Considering ventilation design and/or enhancements when remodeling or constructing new buildings to optimize clean air”
- “Opening windows, when doing so does not create a safety hazard, to increase ventilation” and “using fans to increase the effectiveness of open windows”
- “Using portable air cleaners in spaces with low ventilation”
- “Holding some activities outside, such as lunch, certain classes, or recess/social periods”
- “Keeping bus windows open when it does not create a safety or health hazard”

The CDC also points schools to its “[Ventilation in Buildings](#)” guidance, which contains more detailed recommendations for:

- HVAC system settings to maximize outdoor airflow
- MERV-13 or better filters
- Portable air cleaners
- How to reach 5 or more air changes per hour (ACH)

Policies that Support Staying Home When Sick Also Yield Cleaner Air

Although the CDC deals with policies that support “[having students and staff stay home when sick](#)” under a separate heading, this can also be seen as a step for cleaner air.

How so? Fewer sick people at school means fewer germ particles emitted by breathing, coughing, sneezing, or vomiting end up in the air in the first place.

In Conclusion: Cleaner Air Can Help Keep Students and Staff Healthy, in School, and Ready to Learn!



References

Note: All references are from the CDC's website and were last accessed on December 15, 2025.

[1] "Preventing Spread of Infections in K-12 Schools," May 17, 2024, <https://www.cdc.gov/orr/school-preparedness/infection-prevention/index.html>.

[2] "School Preparedness," May 1, 2024, <https://www.cdc.gov/orr/school-preparedness/index.html>.

[3] "Appendix A: How Infections Spread," May 17, 2024, <https://www.cdc.gov/orr/school-preparedness/infection-prevention/appendix-a.html>.

[4] "Science Brief: Prevention and Control of Respiratory and Gastrointestinal Infections in Kindergarten through Grade 12 (K-12) Schools," n.d., https://www.cdc.gov/orr/school-preparedness/infection-prevention/docs/IPC-Science-Brief_508.pdf.

[5] "Considerations for Prioritizing Additional Strategies," May 17, 2024, <https://www.cdc.gov/orr/school-preparedness/infection-prevention/prioritizing-strategies.html>.

[6] "Everyday Actions for Schools to Prevent and Control the Spread of Infections," May 14, 2025, <https://www.cdc.gov/orr/school-preparedness/infection-prevention/actions.html>.

[7] "When Students or Staff are Sick," Aug. 19, 2024, <https://www.cdc.gov/orr/school-preparedness/infection-prevention/when-sick.html>.

[8] "Additional Strategies that May Be Used to Minimize Infectious Disease Transmission in Schools during Times of Elevated Illness Activity,"

May 17, 2024, <https://www.cdc.gov/orr/school-preparedness/infection-prevention/strategies.html>.

[9] "Planning for Outbreaks, Epidemics, and Pandemics," May 17, 2024, <https://www.cdc.gov/orr/school-preparedness/infection-prevention/planning.html>.

[10] "Taking Steps for Cleaner Air for Respiratory Virus Prevention," Aug. 18, 2025, <https://www.cdc.gov/respiratory-viruses/prevention/air-quality.html>.

[11] "Ventilation Mitigation Strategies," Oct. 3, 2024, <https://www.cdc.gov/niosh/ventilation/prevention/index.html>.

[12] "About Ventilation and Respiratory Viruses," Oct. 3, 2024, <https://www.cdc.gov/niosh/ventilation/about/index.html>.

[13] "Improving Air Circulation," Oct. 3, 2024, <https://www.cdc.gov/niosh/ventilation/prevention/air-circulation.html>.

[14] "Ventilation FAQs Frequently Asked Questions, FAQs 7-9," Oct. 4, 2024, <https://www.cdc.gov/niosh/ventilation/faq/index.html>.

[15] "Improving Air Cleanliness," Oct. 3, 2024, <https://www.cdc.gov/niosh/ventilation/prevention/air-cleanliness.html>.

[16] "How Much Ventilation Is Enough?" Oct. 3, 2024, <https://www.cdc.gov/niosh/ventilation/prevention/Aim-for-5.html>.

[17] "Ventilation in Buildings," May 12, 2023, https://archive.cdc.gov/www_cdc.gov/coronavirus/2019-ncov/community/ventilation.html.

Additional Resources to Help Schools Achieve Cleaner Air

Additional Resources

These resources were selected by Clean Air Allies to provide additional information about taking steps for cleaner air, as recommended by the CDC. Their inclusion here does not indicate that they have been reviewed or endorsed by the CDC. All resources were last accessed on December 15, 2025.

[1] U.S. Environmental Protection Agency (EPA), “**Creating Healthy Indoor Air Quality in Schools**,” Nov. 12, 2025, <https://www.epa.gov/iaq-schools>.

[2] U.S. Environmental Protection Agency (EPA), “**Preventing the Spread of Respiratory Viruses in Public Indoor Spaces**,” Apr. 29, 2025, <https://www.epa.gov/indoor-air-quality-iaq/preventing-spread-respiratory-viruses-public-indoor-spaces>.

[3] California Department of Public Health, “**Improving Indoor Air Quality in Schools**,” Nov. 6, 2024, <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/COVID-19-and-Improving-Indoor-Air-Quality-in-Schools.aspx>.

[4] University of California, Davis (UC Davis) and California Department of Public Health, “**IAQ Video Lessons**,” n.d., <https://iaq.ucdavis.edu/video-lessons/>.

[5] American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and the Center for Green Schools at the U.S. Green Building Council, “**School IAQ Fact Sheets**,” May 30, 2025, <https://www.usgbc.org/resources/school-iaq-fact-sheets-entire-series>.

Resource Summary Authors

JuNelle Harris and Liesl McConchie

Credits

Photo, page 1: Allison Shelley/The Verbatim Agency for [EDUimages](#) (cropped).

Photo, page 2: Allison Shelley for [EDUimages](#).

Figure, page 4: CDC, “Interactive school ventilation tool,” May 27, 2022, <https://stacks.cdc.gov/view/cdc/117871>.

Photos, page 5: 1st and 3rd: JuNelle Harris; 2d: Allison Shelley for [EDUimages](#) (cropped and flipped); 4th: Allison Shelley for [EDUimages](#) (cropped).

Icons: [The Noun Project](#), [Canva](#).

About Clean Air Allies

Clean Air Allies is a nonprofit organization dedicated to increasing access to healthy indoor air in Prekindergarten through Grade 12 (PK-12) schools.

For more information, please visit cleanairallies.org.

The CDC’s School Preparedness Unit can be contacted at schoolpreparedness@cdc.gov.