



Memo: Get Smart about Wildfire Smoke - Guidelines for Schools and Wildfire Smoke

Over the last decade, devastating wildfires have ravaged communities and school districts across California.

These massive disasters blanketed entire regions with thick, unhealthy smoke.

When a wildfire occurs nearby, the decision to close or evacuate a school is straightforward. However, wildfire smoke can settle hundreds of miles from the location of the fire and impact the health of students and school district operations.

Without clear guidelines, districts have been forced to make difficult, last-minute decisions on whether to cancel classes, remain open, or modify school events.

This is why leaders from the education, air quality, and public health communities have developed and updated state guidance regarding air quality for California schools during wildfire smoke days.

These guidelines are intended to advance local conversations between school districts, public health officers, air districts, the community, and provide educational leaders with the data they need to make informed decisions when their communities are inundated with wildfire smoke.

The guidelines are not meant to supersede any protocols or guidelines school districts may have already adopted.

We encourage districts to hold these conversations ahead of the school year.

For questions on how to track air quality in your community, please contact your local air district. To find which air district serves your community go to the site below.

<https://ww2.arb.ca.gov/california-air-districts>

Thank you for your partnership on this critical issue.

School Outdoor Air Quality Activity Recommendations

Air quality is an important consideration for schools in terms of student activities. Local air districts are available to assist schools with understanding local air quality concerns and actions they can take to protect student health. To find out more, contact your local air district. Visit the California Air Resources Board page to learn which district serves your area. <https://ww2.arb.ca.gov/california-air-districts>



Air Quality Index (AQI) & Activity Recommendation

Activity	AQI 0-50 Good	AQI 51-100 Moderate	AQI 101-150* Unhealthy for Sensitive Groups	AQI 151-200 Unhealthy	AQI 201-300** Very Unhealthy	AQI 301-500** Hazardous
Recess	No restrictions	For students with lung or heart conditions, monitor conditions and consider moving to indoor recess as needed.	Exercise indoors or avoid vigorous outdoor activities.	No outdoor activity. All activities should be moved indoors.	No outdoor activity. All activities should be moved indoors.	No outdoor activity. All activities should be moved indoors.
P.E. (Physical Education Class)	No restrictions	For students with lung or heart conditions, consider accommodations or moving PE inside.	Exercise indoors or avoid vigorous outdoor activities.	No outdoor activity. All activities should be moved indoors.	No outdoor activity. All activities should be moved indoors.	No outdoor activity. All activities should be moved indoors.
Athletic Practice & Training	No restrictions	For students with lung or heart conditions, monitor health and accommodate appropriately.	Exercise indoors or avoid vigorous outdoor activities.	No outdoor activity. All activities should be moved indoors.	No outdoor activity. All activities should be moved indoors.	No outdoor activity. All activities should be moved indoors.
Scheduled Sporting Event	No restrictions	Monitor students' health and conditions and adjust as needed.	Hold event indoors or avoid vigorous outdoor activities.	Reschedule or relocate the activity or move it indoors.	Reschedule or relocate the activity or move it indoors.	Reschedule or relocate the activity or move it indoors.

***AQI above 100:** All children are considered sensitive to the health effects of air pollution because their lungs and immune systems are still developing. Children with lung or heart conditions may require extra precautions. Schools **may consider moving exercise indoors**. Indoor exercise should be conducted in areas that **have better air quality than outdoors**. For guidance on creating a clean air space indoors, see section "Recommendations for Ensuring Cleaner Air at school" of this document.

****AQI above 200:** School districts may consider school closures based on site-by-site concerns. To be eligible for a waiver from the State Superintendent of Public Instruction, due to emergency conditions (<https://www.cde.ca.gov/fg/aa/pa/i13a.asp>), poor air quality must be shown to be caused by an emergency event such as a wildfire. A School Emergency Reporting System (<https://www.cde.ca.gov/ls/ep/>) report should also be done if a school is closed due to poor air quality.

Note: See section "**Considerations for School Districts**" from the California Department of Education: *Before You Make a Decision to Close a School*.

Air Quality Guidance for Schools

About the Guidelines:

- These guidelines are based on the United States Environmental Protection Agency (U.S. EPA). Current air quality, outdoor activity guidance for schools and wildfire smoke management can now be found at AirNow. The guidelines are designed to assist in your decision-making process. AirNow's website is <https://www.airnow.gov/>.
- Modify the above chart as needed after consultation with your local county office of education, school districts, air district, and public health experts to determine which air quality monitoring methodology, such as Air Quality Index (AQI), total emissions concentration, or other air district-recommended method best applies in your school district.
- These guidelines and the above chart are not intended to supersede existing guidelines and policies developed by local authorities. School closure and event cancellation is ultimately a district decision for each site based on local conditions.
- The health impact of smoke depends on the sensitivity of the person, intensity of activity and length of exposure. The worse the smoke is, the more important it is to take breaks and watch for symptoms. Children with respiratory or heart conditions are more vulnerable to poor air quality and may require extra precautions. School districts should advise parents to consult with their family health care provider.
- Air quality can worsen during hotter conditions, as higher temperatures can lead to an increase in ozone, a harmful air pollutant. While these guidelines do not address extreme heat, you can find guidance and resources from the California Department of Public Health (CDPH) on the website listed below.
<https://www.cdph.ca.gov/Programs/EPO/Pages/Extreme%20Heat%20Pages/extreme-heat-guidance-for-schools.aspx>.

Using the Guidelines:

- School districts will need to monitor local air quality conditions using air quality tracking tools recommended by their local air district. One example is U.S. EPA's AQI, available at AirNow. However, because other air quality tracking tools may be used in your jurisdiction, it is recommended to contact your local air district for advice on the most appropriate tools to use for your region.
- School districts should make decisions about school activities and closures based on local air quality conditions, the availability and quality of school building air filtration, and direct observation of onsite indoor/outdoor air quality.
- Move school activities indoors if the air indoors is actually cleaner.
- School districts should report any school closures to the School Emergency Reporting System (SERS) and their County Office of Education for media notification, as well as announce closures to families using normal school closure procedures. SERS location on the California Department of Education (CDE) website is <https://www.cde.ca.gov/ls/ep/>.

Additional Air Quality Information & Resources

About AirNow:

- AirNow (<https://www.airnow.gov/>) is a source for air quality information, including forecasted smoke.
- AirNow is operated by government agencies and recommended by many local air districts, the California Air Resources Board (CARB), and U.S. EPA.
- AirNow uses highly accurate tools that are regularly monitored for quality control. Tools remain accurate as opposed to consumer grade sensors, which overestimate (especially at AQI of 150 or higher).
- AirNow monitors form a network to track regional air quality. Pollutants like smoke tend to mix in the atmosphere and may be adequately represented by these monitors, even if a monitor is not in the same neighborhood as a school.
- Although AirNow is relied on by many jurisdictions, please consult with your local air district about the resources school districts can use that will best represent local air quality.
- Another resource is the California Smoke Spotter app developed by CARB, which is a mobile app for phones that provides a 72-hour smoke forecast and is available in English and Spanish. The California Smoke Spotter website is <https://ww2.arb.ca.gov/resources/fact-sheets/california-smoke-spotter?corr>.

About Masks:

- When the air is unhealthy, the best option is to reduce physical activity and stay in a clean indoor air space with windows/doors closed.
- Masks have limitations. N95 masks offer more reliable protection than KN95 or KF94 masks but will not fit smaller faces. Masks are available in smaller sizes for children ages two and up. Surgical gauze and cloth masks provide poor protection from smoke.
 - See CDPH Recommendations for details: <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Respiratory-Viruses/When-and-Why-to-Wear-a-Mask.aspx>
 - Mask sizing guide: <https://www.projectn95.org/mask-size-guide/>
- When fitted correctly, N95 masks that fit over the nose and mouth can significantly reduce breathing in harmful particles.
- Masks must be kept clean and replaced frequently to be effective.

Recommendations for Ensuring Cleaner Air at School:

- Install and maintain a heating, ventilation, and air conditioning (HVAC) system with medium or high-efficiency filtration. Install Minimum Efficiency Reporting Value (MERV) - 13 filters if possible. See U.S. EPA and, AirNow's guidance for Indoor Air in Schools at, <https://www.airnow.gov/wildfires/be-smoke-ready/>.
- Ozone and electrical safety standards: All indoor air cleaners sold in, or shipped to, California must meet certain emission and electrical safety standards (Assembly Bill 2276). Look for the CARB certification label or placard on the device.
- Install portable CARB-approved high efficiency particulate air (HEPA) air cleaners in classrooms and other occupied spaces. Avoid devices that advertise "ionizer" or "ozone" technology. Be sure they are sized correctly for the room, as shown on the link below. [https://www.cdph.ca.gov/Programs/CCDC/DEODC/OHB/Publishing/Images/Tips%20for%20PACs%20New%20Version%20\(4\).png](https://www.cdph.ca.gov/Programs/CCDC/DEODC/OHB/Publishing/Images/Tips%20for%20PACs%20New%20Version%20(4).png).
- As a low-cost alternative, temporary Do-It-Yourself (DIY) air cleaners may be considered, like the ones shown below by using a 20inch box fan combined with one or more MERV13 air filters.



Details and instructional videos are available on CARB's Smoke Ready California website <https://ww2.arb.ca.gov/smokereadyca>.

Some commercial air cleaners have become affordable and portable similar to DIY approaches.

- Ensure doors and windows are sealed tightly. Minimize introduction of outside air by partially or fully closing HVAC outside air dampers. Ensure dampers are re-opened after the wildfire smoke event.
- Low-cost sensors can be used to assess the effectiveness of strategies taken to reduce indoor smoke.
- Indoor air resources:
 - CDE Health & Safety <https://www.cde.ca.gov/ls/fa/hs/>
 - CARB <https://ww2.arb.ca.gov/our-work/programs/indoor-air>
 - CDPH <https://www.cdph.ca.gov/Programs/CCDC/DEODC/EHLB/AQS/Pages/AQS-Main-Page.aspx>

Considerations for School Districts from CDE: Before You Make a Decision to Close a School

Outdoor air quality is one factor local educational agencies (LEAs) need to consider when making a school closure decision. LEAs should consider the factors below, in addition to any other relevant local conditions or concerns, when deciding to close school.

Health and Safety:

- **Indoor air quality.** Ventilation and filtration systems at schools may offer a higher level of protection than residential systems.
- **Supervision.** The school environment provides appropriate student supervision by trained and caring adults who can ensure students remain indoors.
- **Student support services.** School may be the primary place where students receive needed health and counseling services.
- **Nutrition services.** Schools serve healthy meals to a significant proportion of students. If school is closed, it is a substantial challenge at best for LEAs to feed students.
- **Physical Activity.** Children and adolescents need physical activity. School-based programs occurring before, during, and after school are important in providing the recommended amounts of physical activity as shown in the infographic from the Centers for Disease Control and Prevention, Healthy Schools' website https://www.cdc.gov/healthyschools/physicalactivity/school_pa_benefits.htm.

School Services:

- Families may not have options for alternate childcare.
- Working parents and guardians may be affected by school closure and could suffer significant professional and/or economic consequences as a result.
- Students receiving meals from school may not have a reliable alternate source of healthy food.
- Students may not have access to needed services during school closure.
- Schools provide safe and supportive environments for their students.

Instructional Time:

- Instructional time is foundational to students' academic achievement. LEAs should consider adding instructional days or minutes to the school calendar when time is lost due to school closure.
- LEAs that have a foreseeable loss of instructional time due to a history of school closures should consider adding "built-in emergency" days to the school calendar.
- In the event of a closure due to qualifying emergency conditions, to receive credit for the loss of instructional time, LEAs may submit a Request for Allowance of Attendance Due to Emergency Conditions (Form J-13A).
<https://www.cde.ca.gov/fg/it/j13a.asp>
- For information on the J-13A process, please refer to the J-13A School Closure Quick Reference Guide and email attendanceaccounting@cde.ca.gov.
<https://www.cde.ca.gov/fg/it/documents/j13aquickreference.pdf>

National School Lunch Program Meal Reimbursement:

- California *Education Code* Section 49505 allows for eligible LEAs that operate the National School Lunch Program and School Breakfast Program to submit an application for disaster reimbursement to help offset fixed expenses incurred during a disaster. The disaster would require a state or federal declaration for the county affected by the disaster.
- The form to apply for disaster relief payment is available on the CDE School Nutrition Services Division web site under the section named Application Process, Application for Meal Reimbursement During Disaster
<https://www.cde.ca.gov/ls/nu/disasterguidance.asp>.

Guidance for Families When Schools are Closed:

- Check local air quality at AirNow's website <https://www.airnow.gov/>. Stay indoors with doors and windows closed and avoid overheating.
- Create a clean air room. See U.S. EPA's suggestions at <https://www.epa.gov/emergencies-iaq/wildfires-and-indoor-air-quality-schools-and-commercial-buildings>.
- Visit CARB's Smoke Ready California for more guidance at <https://ww2.arb.ca.gov/smokereadyca>.
- Consult a physician if you have concerns about your child's health.

Contacts: For questions, please contact the CDE Emergency Services Team.

Emergency Services Team inbox: EmergencyServices@cde.ca.gov