

# Air Pollution and School Activities

## Public Health Recommendations for Schools on Fine Particle Air Pollution



Air Quality Conditions					
First, check local air conditions at <a href="https://fortress.wa.gov/ecy/enviwa/">https://fortress.wa.gov/ecy/enviwa/</a> and then use this chart.					
	Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy	Very Unhealthy/ Hazardous
<b>Recess</b> (15 minutes)	No restrictions.	Allow students with asthma, respiratory infection, lung or heart disease to stay indoors.	Keep students with asthma, respiratory infection, and lung or heart disease indoors.	Keep all students indoors and keep activity levels light.	Keep all students indoors and keep activity levels light.
<b>P.E.</b> (1 hour)	No restrictions.	Monitor students with asthma, respiratory infection, lung or heart disease. Increase rest periods or substitutions for these students as needed.	Limit to light outdoor activities. Allow any student to stay indoors if they don't want to go outside.  Keep students with asthma, respiratory infection, lung or heart disease, and diabetes indoors. Limit these students to moderate activities. Students with asthma should follow their Asthma Action Plan.	Conduct P.E. indoors. Limit students to light indoor activities. Students with asthma should be following their Asthma Action Plan.	Keep all students indoors and keep activity levels light. Students with asthma should be following their Asthma Action Plan.
<b>Athletic Events and Practices</b> (Vigorous activity 2-3 hours)	No restrictions.	Monitor students with asthma, respiratory infection, lung or heart disease. Increase rest periods and substitutions for these students as needed. Students with asthma should follow their Asthma Action Plan.	Consider moving event indoors. If event is not cancelled, increase rest periods and substitutions to allow for lower breathing rates.  Students with asthma, respiratory infection, lung and heart disease, or conditions like diabetes shouldn't play outdoors. Students with asthma should follow their Asthma Action Plan.	Cancel the event. Or move the event to an area with "Good" air quality — if this can be done without much time spent in transit through areas with poor air quality.	Cancel the event. Or move the event to an area with "Good" air quality — if this can be done without much time spent in transit through areas with poor air quality.

**Light Activities:** Playing board games, throwing and catching while standing, and cup stacking.

**Moderate Activities:** Yoga, shooting basketballs, dance instruction, and ping pong.

**Vigorous Activities:** Running, jogging, basketball, football, soccer, swimming, cheerleading, and jumping rope.

## **School Closures**

School closures are the decision of the individual school district, usually in consultation with the local health department. Consult your local health department ([www.doh.wa.gov/localhealth](http://www.doh.wa.gov/localhealth)) if you have questions about air pollution and health.

## **WAQA Index**

Activity recommendations are based on the Washington Air Quality Advisory (WAQA) index. The WAQA uses the same color-coded categories as the EPA's Air Quality Index (AQI), but the WAQA fine particulate matter (PM<sub>2.5</sub>) categories are set at lower levels of air pollution to be more protective of health. The WAQA shows air quality as poor sooner, with less pollution in the air.

## **Fine Particulate Matter, Indoor Air Quality, and Health**

Wildfires, wood burning, and air stagnation increase the fine particulate matter in the air we breathe. Fine particulate matter travels easily indoors, especially if ventilation systems are drawing outside air into their system. It also comes in through doors, windows, and small openings. Over time, concentrations of fine particulate matter indoors can approach concentrations outdoors.

Exercising students breathe deeper and more often and take in more air, and more air pollution, into their lungs. Breathing polluted air can cause health problems, including aggravating asthma and other respiratory diseases. Anyone experiencing symptoms such as wheezing, shortness of breath, chest pain, headache, and dizziness should be seen by a medical provider.

Schools should reduce student activities once air quality has reached or exceeds the "Unhealthy for Sensitive Groups" category. Increased physical activity requires students to breathe faster and use more oxygen. More outside air is then needed to keep carbon dioxide levels down.

School buildings with enhanced filtration will have improved indoor air quality. Supplemental use of properly sized HEPA-Charcoal air filters, that do not produce ozone, have been shown to improve indoor air quality by reducing particulate matter and chemicals in smoke.

## **Asthma Action Plan**

<http://www.doh.wa.gov/YouandYourFamily/IllnessandDisease/Asthma/WhatShouldIExpectfrommyHealthCareProvider.aspx>

## **More Information**

For more information on indoor or outdoor air quality issues, including wildfire smoke, see <http://www.doh.wa.gov/CommunityandEnvironment/AirQuality.aspx> or contact us toll free at 1-877-485-7316.