

Air Pollution and School Activities

Public Health Recommendations for Schools on Fine Particle Air Pollution



Air Quality Conditions*					
First, check local air conditions at https://fortress.wa.gov/ecy/enviwa/ and then use this chart.					
	Good	Moderate	Unhealthy for Sensitive Groups	Unhealthy	Very Unhealthy/ Hazardous
Recess (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.
P.E. (1 hour)	No restrictions	Monitor students with asthma, respiratory infection, lung or heart disease. Increase rest periods or substitutions for these students as needed.	Keep students with asthma, respiratory infection, lung or heart disease, and diabetes indoors. Limit these students to moderate activities. For others, limit to light outdoor activities. Allow any student to stay indoors if they don't want to go outside.	Conduct P.E. indoors. Limit students to light indoor activities.	Keep all students indoors and keep activity levels light.
Athletic Events and Practices (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, respiratory infection, lung and heart disease, or conditions like diabetes shouldn't play outdoors. Consider moving events indoors. If events are not cancelled, increase rest periods and substitutions to allow for lower breathing rates.	Cancel events. Or move events to an area with "Good" air quality — if this can be done without too much time spent in transit through areas with poor air quality.	Cancel events. Or move events to an area with "Good" air quality — if this can be done without too much time spent in transit through areas with poor air quality.

*Students with asthma should be following their Asthma Action Plan in all Air Quality Conditions.

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) 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_{2.5}) categories are set at lower levels of air pollution to be more protective of health. The WAQA shows air quality as poor earlier, 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 inside physical activities once air quality has reached or exceeds the "Unhealthy" category. Increased physical activity requires students to breathe faster, use more oxygen, and produce more CO₂.

School buildings with enhanced filtration will have improved indoor air quality. Supplemental use of properly sized HEPA-charcoal air filters, 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.