

Recommendations for Outdoor Activities Based on Air Quality for Schools and Child Care Facilities

Health Effect Category	Good	Moderate	Unhealthy for sensitive groups*	Unhealthy	Very Unhealthy/ Hazardous
Visibility (miles)	13+	9-13	5-9	2-5	Less than 2
Particulate levels ($\mu\text{g}/\text{m}^3$)	1 hr	34-51	51-89	89-201	Greater than 201
	8 hr	23-35	35-62	62-140	Greater than 140
	24 hr	13-20	20-35	35-80	Greater than 80
Recess or Other Outdoor Activity (15 minutes)	No limitations	No limitations	Make indoor space available for all children to be active, especially young children. If outdoors, limit vigorous activities and people with chronic conditions should be medically managing their condition.	Keep all children indoors.	Keep all children indoors.
Physical Education Class (1 hour)	No limitations	Monitor sensitive groups and limit their vigorous activities.	Make indoor space available for all children to be active, especially young children. If outdoors, limit vigorous activities and people with chronic conditions should be medically managing their condition.	Conduct P.E. indoors. If outdoors, only allow light activities for all participants. People with chronic conditions should be medically managing their condition.	Conduct P.E. in a safe (good air quality) indoor environment.
Athletic Practice, Training (2-4 hours)	No limitations	Monitor sensitive groups and limit their vigorous activities.	People with chronic conditions should be medically managing their condition. Increase rest periods and substitutions for all participants to lower breathing rates.	Conduct practice and trainings indoors. If outdoors, allow only light activities for all participants. Add rest breaks or substitutions to lower breathing rates. People with chronic conditions should be medically managing their condition.	Conduct practice and trainings in a safe (good air quality) indoor environment.
Scheduled Sporting Events (2-4 hours)	No limitations	Monitor sensitive groups and limit their vigorous activities.	People with chronic conditions should be medically managing their condition. Increase rest periods and substitutions for all participants to lower breathing rates.	Consider rescheduling or relocating event. If outdoor event is held, have emergency medical support immediately available. Add rest breaks or substitutions to lower breathing rates. People with chronic conditions should be medically managing their condition.	Reschedule or relocate event.
Examples of light activities: Walking slowly on level ground Carrying school books Hanging out with friends			Examples of moderate activities: Skateboarding Slow pitch softball Shooting basketballs	Examples of vigorous activities: Running, jogging Playing football, soccer, and basketball	Please note that the intensity of an activity can vary by person and ability

See the back of this document for suggestions on how to use particulate concentration measurements and visibility guidelines to make a decision about poor outdoor air quality and your event. Visit www.todaysair.mt.gov for more information.

* For the purpose of this document, sensitive groups include:

- Young children (ages 0-5 years). Young children may be more sensitive to air pollution as their lungs are still developing and they may have an unknown underlying health condition.
- People who have a chronic condition, such as asthma or another respiratory disease, or cardiovascular disease. People with these conditions may be more sensitive to air pollution and should talk with their primary healthcare provider about managing their condition.



How To Use This Table And The Today's Air Website

- Start early. Well before your event, start monitoring the air quality by visiting the www.todaysair.mt.gov website.
 - Review the forecast on the today's air website: <http://svc.mt.gov/deq/todaysair/smokereport/mostRecentUpdate.aspx>.
 - Review the particulate concentration measurements for your area. If your area is not near an air monitor, follow directions below for using the visibility guidelines.
 - Use the 8 and 24 hour concentration values first for the most conservative estimate of exposure and identify the health effect category that corresponds to this table.
 - Make any adjustments to your plans depending on the forecast and the health effect category.
- Continue to monitor the air quality and the forecast in your area.
 - In the 8 hours before the event, monitor the 1 hour concentrations.
 - Make any adjustments to your plans depending on the forecast and the health effect category. Be sure to leave adequate time for decisions to be made before teams/participants begin travel.
- Air quality can change rapidly. Based on cumulative exposure it is recommended that the 24 hour and 8 hour air quality readings be used to decide whether to hold or cancel an event. Regularly review the 1 hour concentration levels before and throughout lengthy events to assess for deteriorating conditions. If 1 hour air quality readings are in the Unhealthy or Very Unhealthy/Hazardous levels follow those recommendations.

How to estimate air quality based on visibility:

1. Use pre-determined landmarks that were established on a clear day for distances.
2. Face away from the sun.
3. Determine the limit of your visible range by looking for targets at known distances (miles).
4. Visible range is when an object you can easily see in the distance disappears.
5. Use the visibility values in the table to determine the local wildfire smoke category.

Items to Consider when Planning for Poor Air Quality during the School Year

- Is there an outdoor air quality section in the school's Emergency Plan? If so, do you know where it is located?
- How do you determine the air quality category in your area?
 - Which air quality monitor do you use or what geographic spot do you use for visibility guidelines?
- Who makes the recommendations to hold or cancel an outdoor event?
- How do you communicate what the decision was based on?
- How do you reschedule? Are there any rules about rescheduling?
- How do you get information out about your decision? If participants are already traveling, how do you notify them?
- What do you do with the students and parents that arrive to a postponed or canceled event? How do you make the announcement to them?
- What do you do for recess on school days?
- What are the plans if poor air quality affects the school/playground/track/swimming pool for a long period of time?
- How do you document what happened?
 - What went well? What can be done better?