



## Air Quality Guidelines for Competitions and Training

### AIR POLLUTION

In the absence of specific guidelines for the population with Intellectual Disabilities (ID), we propose to adopt the Environmental Protection Agency (EPA) guidelines.

- Air quality index (AQI) >150: Athletes with preexisting respiratory and/or cardiac conditions should avoid heavy exertion and competition. All other athletes should reduce prolonged outdoor activities requiring heavy exertion, and mandatory breaks should be taken every 20 minutes (or more often as needed).
- AQI > 200: All athletes should limit heavy outdoor exertion. Athletes with preexisting respiratory and/or cardiac conditions should not compete or train outdoors.
- AQI >300: No outdoor Competition at major competitions.
- Medical tents should post the EPA guidelines chart in the tent.
- Medical Operation Center should distribute daily air pollution levels to the medical delegations and coaches.
- Coaches should be responsible to ensure that their athletes are following the above-stated guidelines.

At local events and training:

- Coaches should check daily air pollution level and make adjustment to schedules as needed.
- Coaches should identify athletes who might be particularly vulnerable to air pollution, and give appropriate advice.

### POLLEN COUNT

Pollens are regional around a world, and pollen allergies are individual. Medical delegations and staff should be aware of the athletes' pollen allergies, severity of it, and have appropriate medication for each athlete as needed. Generally, these allergies are seasonal, and can be divided into broad categories of tree, grass and weed. A person can be allergic to multiple pollens from different classes of pollens.

- If available, medical tents should denote daily pollen levels and category
- High pollen levels should not result in cancellation of outdoor competitions
- Athletes showing significant allergy and respiratory symptoms at rest should not compete outdoors

### MOLD

After contact with certain molds, individuals with chronic respiratory disease may have difficulty breathing, and people who are immunocompromised may be at increased risk for lung infection. Mold allergy symptoms vary from person to person and range from mild to severe. The symptoms of mold allergy are very similar to the symptoms of other allergies. When an allergic person is exposed to mold, it normally triggers symptoms of hay fever which, while miserable, is not that serious. However, in some cases, the allergic reactions to mold can be more severe and include asthma, sinusitis and lung inflammation. If an

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athlete experiences any allergic symptoms in damp, humid environment, it is possible that she/he might have a mold allergy.

- Event organizers must ensure that athlete accommodations are clean, dry and mold-free
- If available, medical tents should denote daily outdoor mold spore levels. Unfortunately, these data are mostly unavailable

## Appendix 1.

Air Quality Index	Who Needs to be Concerned?	What Should I Do?
Good 0-50	It's a great day to be active outside.	
Moderate 51-100	Some people who may be unusually sensitive to particle pollution.	<b>Unusually sensitive people:</b> Consider reducing prolonged or heavy exertion. Watch for symptoms such as coughing or shortness of breath. These are signs to take it easier.  <b>Everyone else:</b> It's a good day to be active outside.
Unhealthy for Sensitive Groups 101-150	Sensitive groups include people with heart or lung disease, older adults, children and teenagers.	<b>Sensitive groups:</b> Reduce prolonged or heavy exertion. It's OK to be active outside, but take more breaks and do less intense activities. Watch for symptoms such as coughing or shortness of breath.  <b>People with asthma</b> should follow their asthma action plans and keep quick relief medicine handy.  <b>If you have heart disease:</b> Symptoms such as palpitations, shortness of breath, or unusual fatigue may indicate a serious problem. If you have any of these, contact your health care provider.
Unhealthy 151 to 200	Everyone	<b>Sensitive groups:</b> Avoid prolonged or heavy exertion. Move activities indoors or reschedule to a time when the air quality is better.  <b>Everyone else:</b> Reduce prolonged or heavy exertion. Take more breaks during all outdoor activities.
Very Unhealthy 201-300	Everyone	<b>Sensitive groups:</b> Avoid all physical activity outdoors. Move activities indoors or reschedule to a time when air quality is better.  <b>Everyone else:</b> Avoid prolonged or heavy exertion. Consider moving activities indoors or rescheduling to a time when air quality is better.
Hazardous 301-500	Everyone	<b>Everyone:</b> Avoid all physical activity outdoors.  <b>Sensitive groups:</b> Remain indoors and keep activity levels low. Follow tips for keeping particle levels low indoors.

Source : <https://www.epa.gov/pmcourse/patient-exposure-and-air-quality-index>

- <https://www.niehs.nih.gov/health/topics/agents/allergens/pollen/index.cfm>
- <https://www.aaaai.org/tools-for-the-public/allergy,-asthma-immunology-glossary/pollen-counts-defined>
- <https://aafa.org/allergies/types-of-allergies/pollen-allergy/>
- <https://www.niehs.nih.gov/health/topics/agents/mold/index.cfm>
- <https://www.aaaai.org/Global/Site-Map>
- <https://youtu.be/M79-L5Ll39w>
- <https://pubmed.ncbi.nlm.nih.gov/34648953/>

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