

AIR QUALITY



AQHI of 7 or higher means that play should be stopped immediately.

The Air Quality Health Index (AQHI) is a recognized risk management measurement which describes a local reading of air quality as it relates to human health. The AQHI is not real time reporting and can have a lag-time of over one hour. If air quality is changing during athletic activity, be aware of the common symptoms of irritated eyes, coughing, and difficulty breathing in addition to the reported AQHI index.

An AQHI index of over 7 indicates a “high risk” from air pollutants.

An AQHI index of between 4 and 6 indicates ongoing AQHI air monitoring should be initiated in order to identify to the umpire, teams, and Tournament Supervisors, etc. if the index should reach 7 or higher. In practice situations, athletic activity should be adjusted through reduced intensity, reduced duration, and providing rest periods.

Additional Information

In order to obtain the current AQHI, go to

https://weather.gc.ca/mainmenu/airquality_menu_e.html

<http://environment.alberta.ca/apps/aqhi/aqhi.aspx>

[Download the APP - WeatherCAN - Canada.ca](#)

Softball Alberta recommends using the Alberta website as it lists more specific stations. Air quality can be variable within a localized region like the greater Edmonton area even though stations such as Edmonton and St. Albert are in proximity to each other. The Alberta website information is also available as an app. Use the index value that is within one hour of the scheduled start time for the game or activity.

In addition to the AQHI, be aware of weather and other conditions. Conditions such as forest fires located some distance away, local burning of agricultural stubble, and sudden changes in wind direction and strength can all affect local air quality.

The AQHI is calculated differently for Alberta in two significant ways. First, in the rest of Canada, the AQHI only measures ground-level ozone, fine particulate matter (PM_{2.5}) and nitrogen dioxide. In addition to these three pollutants, Alberta is more comprehensive by also including sulphur dioxide, hydrogen sulphide, total reduced sulphur and carbon monoxide in its AQHI reporting. Second, for the rest of Canada the AQHI is calculated on a 3-hour rolling average and so is less responsive to dramatic changes in air quality. It is for these reasons that the Alberta AQHI website is the best source of AQHI index values.

Individuals tend to rely on sensory perception to evaluate air quality when, in fact, the pollutants that present the greatest harm to human health are difficult to see or smell such as ground level ozone.

The AQHI treats an index value above 10+ as “Very High” with health messages for the “general” and “at risk” populations to reschedule all outdoor activities – strenuous or not. Athletes are in the “at-risk” population because of the intensity and duration of exposure to outdoor air quality.

For additional information, the following websites are helpful:

Environment Canada Air Quality: https://weather.gc.ca/mainmenu/airquality_menu_e.html

Alberta Environment AQHI: <http://environment.alberta.ca/apps/aqhi/aqhi.aspx>

Air Health: <https://www.canada.ca/en/environment-climate-change/services/air-quality-health-index.html>

Alberta Air Quality Advisory Site: <http://www.albertahealthservices.ca/news/air.aspx>

SIRC - Sport Information Resource Centre - Online instruction kit / infographics - https://sirc.ca/wp-content/uploads/2023/02/AQHI_Infographic_EN.pdf