

Air Quality and Outdoor Sport Safety Guide

Adapted from the Sport Information Resource Centre and Health
Canada Guide to Air Pollution & Sport Safety



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1. Background Statement

By nature, rowing is a sport that is focused on being outside in the open air. At the Calgary Rowing Club (CRC), members row on the Glenmore Reservoir from the beginning of May to the end of October of each year, and are subject to the climate conditions and air quality that arise from a variety of factors, including but not limited to forest fires and smog.

Forest fire smoke and smog can have short and long term impacts on the health of individuals. In brief, poor air quality is partly measured by particulate matter (PM) size and the type of pollutant, where PM10 and PM2.5 represent pollutant particles that are small enough to enter deep into the lung tissue and lead to adverse health effects. According to Health Canada, the health impacts from bad air quality and forest fire smoke include many asthma episodes, hospital admissions for heart and respiratory problems, and other health outcomes each year. The CRC is fully committed to reducing the risk posed to outdoor sport participants from poor air quality to help contribute to safer outdoor activities and events.

2. Purpose and Scope

These Guidelines aim to increase the safety of all outdoor sport participants with respect to air quality. To do this, CRC coaches will follow Health Canada guidelines such as the Air Quality Health Index (AQHI) and modify activities accordingly. In addition, the CRC will provide its members with evidence-informed strategies to prevent or limit participants' exposure to air pollution. The information in these Guidelines applies to all individuals and at all times during CRC sanctioned events and activities.

3. Air Quality Awareness

The CRC will make these Guidelines readily accessible to members on our website <https://www.calgaryrowing.com/safety> and will email them to all members at the start of the rowing season. All CRC coaches are encouraged to discuss poor air quality and its effects on health during pre-season communications, such as team meetings or CRC-wide emails. Additionally, the CRC requires coaches and sport administrators to complete the Air Quality and Outdoor Sport Safety eLearning Module on the Coaching Association of Canada's e-learning platform, The Locker, as part of their pre-season education program.

4. Monitoring Air Quality

Just as outdoor training or competition may be cancelled or rescheduled due to lightning or other weather conditions, it is essential to take similar actions to protect outdoor sport participants when the air quality is poor. The CRC requires coaches, team managers and sport officials to check the Air Quality Health Index (AQHI) before an outdoor event and when an activity is scheduled to begin. You can find the local AQHI by visiting **AirHealth.ca** or by downloading the WeatherCAN app. The WeatherCAN app can also be used to receive notifications when the AQHI exceeds a pre-set level (for example, AQHI 4). Coaches, team managers and sport officials can also monitor media platforms (including television, radio, and social media) for regional and local air quality alerts. **Please note**, the Calgary Rowing Club will use the Central Calgary AQHI monitoring station, found [here](#).

5. Managing Participants' Safety with Respect to Air Quality

Above all else, it is each participant's responsibility to decide when outdoor air quality is unsafe for their preferences or medical conditions. Members must ensure that if they are scheduled to participate in an activity where the AQHI is too high for their preference and the activity is not canceled, that they communicate with their coaches that they will not participate.

i. TO PLAN SAFE OUTDOOR ACTIVITIES: Check the forecast maximums. These values estimate the maximum value that the AQHI will reach in your region during each of the forecast periods.

If the AQHI value is forecast to be between **1 to 3 (low risk)**, plan outdoor activities

If the AQHI value is forecast to be between **4 to 6 (moderate risk)**, CRC recommends a modified* version of the outdoor activity be planned.

If the AQHI value is forecast to be **7 (moderate to higher risk)**, a modified* version of the outdoor activity must be planned.

If the AQHI value is **8 or higher (high risk)**, either plan to hold your session indoors or reschedule the activity for when the forecasted value is low. At this level, strenuous activities should not be held outdoors.

ii. DURING THE ACTIVITY: Check the observed conditions and the current AQHI value for a specific region. Observed conditions may differ from the AQHI value and discretion should be used when assessing the below risk.

If the AQHI value is between **1 to 3 (low risk)**, continue with the planned outdoor activities

If the AQHI value is between **4 to 6 (moderate risk)**, CRC recommends a modified* version of the outdoor activity.

If the AQHI value is **7 (moderate to higher risk)**, the outdoor activity must be modified*.

If the AQHI value is **8 or higher (high risk)** coaches must make the decision to either move the session indoors or reschedule it to another time.

*Note: When the AQHI value is at **7 (moderate to higher risk)** the CRC requires that one or more modifications be made to the activity (see items 1 to 3 below), and that pre-activity, participants are advised of the risks (#4) and of the need to self and crew-member monitor (#5) during the activity and to act on any adverse health indications by, for example, terminating participation in the activity:

1. Reduce the intensity of the outdoor activity
2. Incorporate more breaks into the outdoor activity
3. Shorten the duration of the outdoor activity
4. Inform sport participants of risks, especially for those with a pre-existing medical condition
5. Monitor all participants, particularly those with pre-existing medical conditions, for symptoms

The AQHI uses a scale to show the health risk associated with the air pollution we breathe.

The following table provides the health messages for 'at risk' individuals and the general public for each of the AQHI Health Risk Categories.

| Health Risk | Air Quality Health Index | Health Messages | |
|-------------|--------------------------|---|---|
| | | At Risk Population* | General Population |
| Low | 1 - 3 | Enjoy your usual outdoor activities. | Ideal air quality for outdoor activities. |
| Moderate | 4 - 6 | Consider reducing or rescheduling strenuous activities outdoors if you are experiencing symptoms. | No need to modify your usual outdoor activities unless you experience symptoms such as coughing and throat irritation. |
| High | 7 - 10 | Reduce or reschedule strenuous activities outdoors. Children and the elderly should also take it easy. | Consider reducing or rescheduling strenuous activities outdoors if you experience symptoms such as coughing and throat irritation. |
| Very High | Above 10 | Avoid strenuous activities outdoors. Children and the elderly should also avoid outdoor physical exertion. | Reduce or reschedule strenuous activities outdoors, especially if you experience symptoms such as coughing and throat irritation. |

* People with heart or breathing problems are at greater risk. Follow your doctor's usual advice about exercising and managing your condition.

7. Guidelines Review

These Guidelines were last updated by Cyrus Mackie on September 6, 2023. They will be reviewed annually by the Safety Committee at the Calgary Rowing Club to ensure that they continue to align with the best practice recommendations of health experts.