



**AIR QUALITY
MONITORING
AND MITIGATION
@ CAC**



The following ten-step approach is CAC's method to ensure a high standard of care response to poor air quality.

01

Staff and faculty are informed about mitigation strategies for poor air days.

02

Classrooms are cleaned daily to a high standard to remove residual dust and other indoor pollutants that decrease indoor air quality.

03

Classrooms continue to use mechanical (HVAC) and passive ventilation (windows and doors) measures when outdoor air is of higher quality to improve indoor air quality.

04

Climate control in all classrooms helps to improve indoor air quality on all days.

05

The vegetation on campus is professionally cared for and monitored, acknowledging the positive effects that trees have on improving local outdoor air quality.

06

Green walls are being installed around campus, as ample research shows positive effects of green walls improving local outdoor air quality.

07

During the morning traffic rush in front of school, CAC staff work to quickly and safely minimize the idling of cars to reduce emission of particles and gases close to CAC classrooms.

08

The health office has several air quality monitoring devices to examine AQI at CAC, rather than relying on satellite data or measures in other parts of greater Cairo. In addition, both the athletic director and the Head of School have air quality monitoring tools in their respective offices. Those who monitor air quality will be trained on how to properly calibrate the devices regularly.

09

When the outdoor air quality is consistently greater than AQI 150, the health office sends out an email to report deteriorating air quality.

10

Air purifiers are being installed in classrooms. The distribution of air purifiers is starting with the elementary school core classrooms. After the initial distribution a re-evaluation will occur to see if additional air purifiers need to be added to specific rooms.

Cairo American College (CAC) desires a healthy atmosphere for its students, staff, and parents. Being located in one of the largest cities in Africa with high population density has exacerbated the poor air quality in the greater Cairo area. The specific air quality at CAC is complex due to being located in an arid environment with complex point source pollution sources. During winter mornings it is common for CAC outdoor air quality to start out poor, only to rapidly improve within minutes or hours. The opposite also occurs.

The following mitigation steps were developed after review of the professional literature on air quality monitoring and mitigation, consideration of peer school mitigation procedures, and an acceptance that there are a wide-range of personal opinions and preferences on best practices related to mitigation procedures.

Thus, CAC supports parent requests to not have their child participate in outside activities and/or recess at certain AQI levels as identified by parents. In addition, high-quality masks are available for purchase in the Spirit Store.



MITIGATION PROCEDURES

01

When outdoor air quality is consistently greater than AQI 150, the health office contacts the Athletic Director (AD) and Head of School (HoS) to confirm additional readings.

When outdoor air quality is confirmed greater than AQI 150, the health office sends out an email to report deteriorating air quality.

- Keep classroom doors and windows closed
- Ensure classroom air purifier is on
- Sports and heavy exertion activities are not allowed during outdoor recess or outside time per EPA recommendations

02

03

When outdoor air quality is greater than AQI 200 the health office notifies staff to implement further mitigation steps.

- ES Indoor fun
- All PE activities are moved indoors
- Set air purifier to 'max setting'

After-school Activities and Athletics

- When outdoor air quality is greater than AQI 150, the health office contacts the Activities Coordinators and Athletic Director to move heavy exertion activities indoors.
- When outdoor air quality is greater than AQI 200 the health office notifies the Athletic Director and Activities Coordinators to modify all activities and athletics.
- When outdoor air quality is greater than AQI 300 the health office notifies AD and Activities Coordinators that all community indoors and outside activities should be cancelled.
- Coaches and Sponsors of weekend, before or afterschool activities should reference the AQI monitoring station at the CAC Health Office to follow the required mitigation steps.

Definitions

HEAVY EXERTION ACTIVITIES

Includes outdoor basketball, cross country, soccer, swimming, track and field (distance portion), and similar ASAs/field trips.

MODIFIED

A change to reduce the time and/or level of exertion of an activity. Examples include moving indoors, focus on technical skills, replace work-out for easy day.

FURTHER GUIDELINES

Community members who are more sensitive to the health effects of poor air quality, including individuals with asthma, respiratory illness, and heart or lung disease are recommended to take additional mitigation measures. Parents of these children should speak with their Principal and ensure the conditions are recorded in the health office. Faculty/staff should inform their direct supervisor of such conditions.

Air quality levels will vary during the day and may rise above or below outdoor activity guidance levels during ongoing activities. Activities with less than one hour remaining may proceed using the mitigation measures the activity started with.



RESOURCES AND CREDIT

- Cairo University Center for Environmental Hazards Mitigation
- The United States Environmental Protection Agency (EPA)

Air quality policies/procedures at the following International Schools:

- American Embassy School Delhi
- Britannica School Shanghai
- Dulwich College Shanghai
- International School of Bangkok
- International School of Beijing
- Nord Anglia School Beijing
- Shanghai Community International School
- Tianjin International School
- Western Academy Beijing
- Wellington College Beijing

This Air Quality Monitoring and Mitigation Guide will be revised and updated as needed



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