



# Niagara Catholic Extreme Heat/Extreme Cold Weather Protocol

December, 2017



# Niagara Catholic

## Extreme Weather Protocol for Schools

### EXECUTIVE SUMMARY

This Extreme Weather Protocol, as approved by Senior Administrative Council, identifies action to be taken in hot and cold weather extremes. It will be enacted by all Niagara Catholic schools when Niagara Region Public Health declares an Excessive High Heat Alert, or an Extreme Cold Alert. This protocol is intended to work in tandem with Niagara Catholic's Employee Attendance During Inclement Weather and Workplace Policy (201.9) and the Board's Transportation and School Operations for Inclement Weather Policy (500.1).

### BACKGROUND

Niagara Catholic takes direction from Niagara Region Public Health during Excessive High Heat Alerts and Extreme Cold Alerts. This document exceeds the requirements for a heat/cold protocol.

### EXCESSIVE HIGH HEAT ALERT

An Excessive High Heat Alert is issued by Niagara Region Public Health when:

- The humidex is at least 40C or higher for two consecutive days; or
- Daily temperatures are expected to reach 31C or higher for two consecutive days, and overnight temperatures are at least 20C or higher for two consecutive days. The humidex means that the humidity in the air makes the temperature feel as though it is warmer than the measurement on the thermometer.





According to Environment Canada, Humidex warnings include:

Humidex Range	Degree of Comfort	Action Required
20C-29C	<ul style="list-style-type: none"> <li>• Quite comfortable</li> </ul>	<ul style="list-style-type: none"> <li>• Dress for the weather</li> <li>• Wear hats/sunscreen</li> <li>• Stay hydrated</li> <li>• Outdoor activities are generally safe</li> </ul>
30C-39C	<ul style="list-style-type: none"> <li>• Some discomfort may be experienced</li> </ul>	<ul style="list-style-type: none"> <li>• Dress in light, loose clothing</li> <li>• Wear hats/sunscreen</li> <li>• Stay hydrated</li> <li>• Limit outdoor activity to early morning/late evening</li> </ul>
40C-45C	<ul style="list-style-type: none"> <li>• Great discomfort may be experienced</li> </ul>	<ul style="list-style-type: none"> <li>• Dress in light, loose clothing</li> <li>• Wear hats/sunscreen</li> <li>• Stay hydrated</li> <li>• Limit outdoor activity to early morning/late evening</li> <li>• Be prepared to cancel outdoor activities during peak heat hours of the day</li> <li>• Keep windows/blinds closed if classrooms do not have air conditioning</li> </ul>
45C-53C	<ul style="list-style-type: none"> <li>• Dangerous</li> </ul>	<ul style="list-style-type: none"> <li>• As above, with all outdoor activities cancelled</li> </ul>
54C+	<ul style="list-style-type: none"> <li>• Heat stroke is imminent</li> </ul>	<ul style="list-style-type: none"> <li>• As above</li> </ul>



# HEAT-RELATED ILLNESSES

Condition	Symptoms	Treatment
Heat rash	<ul style="list-style-type: none"> <li>Red bumpy rash with severe itching</li> </ul>	<ul style="list-style-type: none"> <li>Change into dry clothes</li> <li>Avoid hot environments</li> <li>Rinse skin with cool water</li> </ul>
Heat cramps	<ul style="list-style-type: none"> <li>Painful cramps occur commonly in the most worked muscles (arms, legs or stomach); this can happen suddenly at work or later at home</li> <li>Heat cramps are serious because they can be a warning of other more dangerous heat-induced illnesses</li> </ul>	<ul style="list-style-type: none"> <li>Move to a cool area</li> <li>Loosen clothing</li> <li>Gently massage and stretch affected muscles</li> <li>Drink cool salted water (1½ to 2½ mL salt in 1 litre of water) or balanced commercial fluid electrolyte replacement beverage</li> <li>If the cramps are severe or don't go away after salt and fluid replacement, seek medical aid</li> <li><b>Salt tablets are not recommended</b></li> </ul>
Fainting	<ul style="list-style-type: none"> <li>Sudden fainting after at least two hours of work; cool moist skin; weak pulse.</li> </ul>	<p><b>GET MEDICAL ATTENTION</b></p> <ul style="list-style-type: none"> <li>Assess need for cardiopulmonary resuscitation (CPR)</li> <li>Move to a cool area</li> <li>Loosen clothing</li> <li>Have the person lie down</li> <li>If the person is conscious, offer sips of cool water</li> <li><b>Fainting may also be due to other illnesses</b></li> </ul>
Heat exhaustion	<ul style="list-style-type: none"> <li>Heavy sweating/cool moist skin</li> <li>Body temperature over 38°C</li> <li>Weak pulse/normal or low blood pressure</li> <li>Person is tired and weak, and has nausea and vomiting</li> <li>Extreme thirst/panting or breathing rapidly</li> <li>Vision may be blurred</li> </ul>	<p><b>GET MEDICAL ATTENTION</b></p> <ul style="list-style-type: none"> <li>This condition can lead to heat stroke, which can cause death quickly</li> <li>Move the person to a cool shaded area</li> <li>Loosen or remove excess clothing</li> <li>Provide cool water to drink</li> <li>Fan and spray with cool water</li> <li>Do not leave affected person alone</li> </ul>
Heat stroke	<ul style="list-style-type: none"> <li>High body temperature (over 40°C) and any one of the following:</li> <li>The person is weak, confused, upset or acting strangely</li> <li>Has hot, dry, red skin (classic heat stroke) or profusely sweating (exertional heat stroke)</li> <li>A fast pulse/headache or dizziness</li> <li>In later stages, a person may pass out and have convulsions</li> </ul>	<p><b>CALL AMBULANCE</b></p> <ul style="list-style-type: none"> <li>This condition can kill a person quickly</li> <li>Remove excess clothing</li> <li>Fan and spray the person with cool water</li> <li>Offer sips of cool water if the person is conscious</li> </ul>

# EXTREME COLD ALERT

An Extreme Cold Alert is issued when:

- Temperatures fall below -15C (acknowledging that in a geographic area such as Niagara, there are temperature variances between municipalities, this reading is taken in central Niagara and is used as the benchmark. Some areas may be colder than -15C, while others may not have hit that threshold but nevertheless fall under the alert for the purpose of consistency throughout the Regional Municipality of Niagara).
- Weather conditions are severe enough to warrant alerting the community to the risks involved with prolonged exposure to the outdoors (blizzard, or a wind chill warning).

Similar to the notion of a humidex alert, the wind chill is determined by the wind speed, combined with the outdoor temperature. This combination creates the “wind chill,” which effectively makes the air feel colder than it is, because of the wind.

According to Environment Canada, risks and warnings associated with the wind chill include:

Wind Chill Range	Exposure Risk/ Health Concerns	Action Required
0C to -9C	<ul style="list-style-type: none"> <li>• Low risk of hypothermia/ frostbite</li> <li>• Slight degree of discomfort</li> </ul>	<ul style="list-style-type: none"> <li>• Dress for the weather</li> <li>• Stay dry</li> <li>• Students will be outside during recesses/lunch if there is no inclement weather</li> </ul>
-10C to -27C	<ul style="list-style-type: none"> <li>• Moderate risk for hypothermia/frostbite</li> <li>• Uncomfortable</li> </ul>	<ul style="list-style-type: none"> <li>• Dress in warm layers of wind-resistant clothing</li> <li>• Wear a hat, scarf, insulated gloves / mittens and insulated, waterproof footwear.</li> <li>• Schools will be open if there is no inclement weather</li> <li>• Students are expected to be outside at recess if there is no Extreme Cold Alert or inclement weather</li> </ul>
-28C to -39C	<ul style="list-style-type: none"> <li>• Exposed skin can freeze in 10-30 minutes</li> <li>• High risk of frostnip or frostbite</li> <li>• High risk of hypothermia</li> </ul>	<ul style="list-style-type: none"> <li>• Schools will be open if there is no other accompanying inclement weather/facilities issues</li> <li>• Students who attend school will remain inside during recesses</li> <li>• Transportation may be impacted when the temperature approaches this threshold (e.g. during the “polar vortex” when ice buildup prevented buses from running on schedule)</li> </ul>
-40C to -47C	<ul style="list-style-type: none"> <li>• Exposed skin can freeze in 5-10 minutes. Very high risk of frostbite</li> <li>• Very high risk of hypothermia</li> </ul>	<ul style="list-style-type: none"> <li>• As above</li> </ul>

# EXCESSIVE HEAT/EXTREME COLD ALERT NOTIFICATION PROCESS ROLES AND RESPONSIBILITIES

## Niagara Region Public Health

- Monitors forecast
- Issues heat/cold alerts to school boards and to media
- Issues notifications when alerts are lifted

## Communications Officer

- Issues Communications Notice to Senior Staff, Elementary and Secondary Principals, NCAA Convenor and Administrator of Alternative Programs and Community Partnerships outside of 1:30 p.m. threshold when Extreme Heat/Cold Alerts are declared by Public Health
- Posts Alert on Board website
- Posts Alert on social media channels and RTs information from Niagara Region Public Health
- Posts on Board website/social media channels if schools are closed or events are cancelled due to heat, cold, inclement weather, transportation issues or if there are facilities issues affecting safe school attendance
- Issues Communications Notice outside of 1:30 p.m. threshold when Heat/Cold Alerts are lifted





## Principals

*Principals are expected to check emails regularly for Notices sent outside of the 1:30 p.m. threshold, particularly on days when a Heat or Cold Alert would reasonably be anticipated.*

In the event of heat alert, Principals are encouraged to:

- Make frequent announcements to remind students and staff to drink plenty of water
- Refer to this protocol for guidance on how to recognize signs and symptoms of heat stress in both students and colleagues
- Staff with an illness or condition that puts them at greater risk of heat-stress illness, such as diabetes, cardiovascular problems, MS or are pregnant, are encouraged to notify their supervisor of their condition
- Advise staff to turn off lights and computers to reduce radiant heat from electronics. If electronics must be used, they are to be used first thing in the morning
- Advise staff to close windows to prevent overheating the room, unless there is a breeze to circulate the air. Curtains/blinds will also be closed to reduce heat from direct sun
- Design a roster to ensure all classrooms have an opportunity to access cooler areas of the school such as library information centres and gyms on a rotating basis throughout the day

*Note that when an Extreme Cold Alert has been issued, Principals will keep students inside during recesses. During Extreme Heat Alerts, students may go outside for abbreviated breaks, with the expectation they will limit activity, stay in shady places whenever possible and practical and remain hydrated.*





## STUDENT SPORTS/PHYSICAL ACTIVITY

- Outdoor physical activities will be limited to the early morning. Passive activities, such as storytime or walks in shaded areas are permitted, provided all students have appropriate clothing/hydration for the weather
- Student games and practices may have to be modified, relocated, rescheduled or cancelled in the event of extreme heat or cold (excluding inclement weather sufficient to cancel student transportation or school)
  - If a practice is scheduled for a day with an extreme temperature, the coach is encouraged to make arrangements to modify practice (practice without full gear/wear additional layers, shorten the length of practice or adapt the training session to the conditions, relocate the practice (move inside to an air conditioned/heated gym if practical), reschedule to before school (if possible and practical) to avoid practicing at the hottest time of the day during extreme heat or cancelling the practices.
  - If a game is scheduled for a day with an extreme temperature, Principals and coaches will consult with the NCAA Convenor/Health and Physical Education Support Consultant for guidance before making a decision.

## SCHOOL-FACILITY OPERATION

- In the event of a furnace/boiler malfunction on a cold weather day, the Principal will notify facilities services as quickly as possible to have the affected equipment repaired. The Principal will also notify his/her Family of Schools Superintendent of Education.
- If it is determined the equipment can be repaired quickly, students will be relocated to the warmest part of the school. If the equipment cannot be repaired, the Principal will work with the Family of Schools Superintendent to discuss a course of action, up to and including closing the affected school. In the event of a school closure due to temperature inside the building, all Community Use of School Permits will be cancelled for the day.
- The Communications Officer will convey information to the community as required



## TRANSPORTATION

- Should an Extreme Cold Alert be accompanied by inclement weather sufficient to cancel transportation at the start of the school day across the system or in a specific area, the Board's Employee Attendance During Inclement Weather and Workplace Policy (201.9) and the Board's Transportation and School Operations for Inclement Weather Policy (500.1) will be in effect. Schools will be open and students will be kept inside. This will also apply should conditions deteriorate throughout the day to require schools to close.
- In the event of a mid-day school closure, the Principal(s) of affected school(s) shall contact parents to notify them of the impending closure, according to the Board's Transportation and School Operations for Inclement Weather Policy. The Communications Officer will convey this information with the media by phone/email and by posting notices on the Board website and social media channels.



