

Guidelines for the Prevention and Management of Hot Weather-Related Illness in Long-Term Care Homes

DISCLAIMER

At the time of publication, these Guidelines reflect multiple sources of evidence-based practices and can be used in conjunction with other expert sources of evidence-based practices as a point of reference for long-term care homes in developing or enhancing their own customized hot weather illness prevention and management plans consistent with requirements outlined in s.20(1) of O. Reg. 79/10. A licensee relying upon these Guidelines as the sole source of evidence-based practices may not be in compliance with s. 20(1) of O. Reg. 79/10, particularly where the sources of evidence-based practices cited in these Guidelines have changed. The Guidelines are deliberately broad in nature in an effort to apply to as many Long-Term Care homes as possible in light of differences in resident profiles, building structures, mechanical systems and design.

Existing legislation, regulations, policies and standards relating to Long-Term Care homes in Ontario take precedence over these Guidelines.

Furthermore, nothing in these Guidelines constitutes an endorsement or recommendation of any specific commercial product, process or service by trade name or trademark manufacturer.

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Purpose

The “*Guidelines for the Prevention and Management of Hot Weather-Related Illness in Long-Term Care Homes*” (the Guidelines) were developed by the Ministry of Health and Long-Term Care (MOHLTC) for Long-Term Care homes (LTCHs) in recognition of the need to manage the serious risks to residents associated with hot weather-related illness.

The MOHLTC had previously released guidelines on the “Prevention and Management of Hot Weather-Related Illness in Long-Term Care Facilities” in June 1989, which were subsequently updated in May 1990, June 2006, July 2007 and July 2012. The MLTC acknowledges that since the release of these earlier Guidelines, LTCHs have made considerable progress in the prevention and management of hot weather illness and conditions, and the new *Long-Term Care Homes Act, 2007 (LTCHA)*, which came into force on July 1, 2010, includes requirements specific to seasonal hot weather risk and associated hot weather related illness, emphasizing the importance that every LTCH have in place hot weather illness prevention and management plan.

At the time of publication, these Guidelines reflect multiple sources of evidence-based practices and can be used in conjunction with other expert sources of evidence-based practices as a point of reference for long-term care homes in developing or enhancing their own customized hot weather illness prevention and management plans consistent with requirements outlined in s. 20(1) of O. Reg. 79/10. A licensee relying upon these Guidelines as the sole source of evidence-based practices may not be in compliance with s. 20(1) of O. Reg. 79/10, particularly where the sources of evidence-based practices cited in these Guidelines have changed.

The Guidelines are deliberately broad in nature in an effort to apply to a many Long-Term Care homes as possible in light of differences in resident profiles, building structures, mechanical systems and design.

LTCH Administrators should ensure that all staff, residents, families and visitors are familiar with their home’s policies and procedures relating to hot weather prevention and management to ensure a consistent approach and application.

In addition, MLTC acknowledges that during the summer season, LTCH staff is vulnerable as well, though in different ways, to hot weather-related conditions, LTCHs should always take the necessary steps to ensure the safety and well-being of their staff. However, these Guidelines are limited in scope to the health and safety of residents. Employee tips for working in hot weather can be found in *Appendix A*. Information regarding worker protection during hot weather conditions is available through the Ministry of Labour, Training and Skills Development at www.labour.gov.on.ca/english/hs/ and Health Canada at <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/climate-change-health/extreme-heat-events-guidelines-technical-guide-health-care-workers.html>

Introduction

Hot weather conditions affect everyone. However, the summer months can present a tremendous challenge to LTCH residents. Elderly individuals are more prone to heat conditions and illness than younger individuals for several reasons. For instance, elderly people do not adjust as well to sudden changes in temperature, they are more likely to have a chronic medical condition that upsets the body's normal response and they are more likely to take prescription medications that impair the body's ability to regulate temperature. In addition, LTCH residents are more vulnerable than the general population because most often they exhibit multiple health conditions, decreased mental capacity and physical limitations which combine to affect the body's ability to cool itself. For these reasons, LTCH residents are at increased risk of developing one or more hot weather-related illness. Consequently, the prevention and management of hot weather-related illness in LTC residents is imperative.

These Guidelines are based on an assumption that an interdisciplinary resident-focused risk assessment is completed for each resident. All disciplines (environmental, nursing, activation, dietary, and medical) must work together to determine the risks that their residents are facing on any given day. Decreasing resident discomfort is based on the assessment of both the individual resident's risk and prevailing environmental conditions.

These Guidelines recognize the dual importance of overall health and environment factors on the resident during hot weather. The Guidelines describe the various heat related conditions, highlighting heat exhaustion and heat stroke as the most severe. They also describe the preparation and planning for, prevention of and interventions to manage hot weather-related illness taking into consideration an approach that incorporates an interdisciplinary care model.

Hot weather-related illness and death are preventable. LTCHs that struggle to alleviate resident symptoms of hot weather-related illness are those that do not have air conditioning in at least several common spaces throughout the home. Contributing factors to hot indoor environments during the summer season are inadequate insulation, building age, air infiltration and heat loss and gain. The first priority towards achieving building comfort during the summer months is to keep the heat out.

If LTCH staff are unsure about anything contained in these Guidelines or have any concerns about a resident, they should always consult a physician.

Ontario's Heat Warning and Information System

Background

Normal summer (May to September) temperatures in Ontario, depending on the region, can range between 13-30 degrees Celsius (°C). With evidence that climate change is occurring, a key impact expected in many regions of Canada is the increasing intensity, duration and frequency of extreme heat events. When humidity levels are factored in, the temperature can feel like 20-50°C. Temperature and humidity levels will vary depending on factors such as dew point, wind speed, wind direction, cloud cover and geographical location within the province.

The Meteorological Service of Canada, a division of Environment Canada, has a weather warning system which includes watches, warnings and advisories. These warnings relate to the potential and / or actual existence of storms (hurricanes and tornadoes), precipitation (rain or snow) and cold temperatures. Humidity levels are not included in weather watches. However, a separate system, referred to as the "humidex" has been developed to warn people when conditions pose increased risks for heat-related illness.

The Humidex

The humidex is an index (a computed value as opposed to a measured value) developed to describe how hot or humid weather feels to the average person. The humidex combines the temperature and humidity into one number to reflect a perceived temperature. It is a better measure of how stifling the air feels than either temperature or humidity alone. The higher the relative humidity, the greater the discomfort experienced since perspiration evaporates less readily and the body feels more hot and sticky. The Meteorological Service of Canada uses humidex ratings to inform the general public when conditions of heat and humidity are possibly uncomfortable.

Heat Warning Information System (New)

Changes to Ontario's climate, which has included an increase in the frequency, intensity and duration of extreme heat events, has precipitated the need to develop an early warning system for all citizens. A Heat Warning Information System (HWIS) was implemented by Environment and Climate Change Canada (ECCC) on May 31, 2016 in order to standardize timely heat health messaging in order to reduce the avoidable human health consequences of extreme heat.

The HWIS was developed after extensive engagement with Health Canada, the Ontario Ministry of Health and Long-Term Care (MOHLTC), and local public health units (PHUs). The HWIS enables PHUs to increase consistency in response to heat events and to better protect residents, vulnerable community members and visitors. Depending on the PHU for your region, you may receive a "heat warning" that mirrors the ECCC's heat warnings via social media, traditional media, and internal networks and link citizens to the ECCC's website or their WeatherCAN application for mobile devices. During a severe or

prolonged heat event, lasting more than 2 days, some PHUs may use the term “extended heat warning” or a “prolonged heat event” or a heat emergency. The decision to use these terms and to set responses into motion would depend on the various strains on the capacity of the health and social services sectors and/or effects such as power or water shortages. In addition, escalating to an extended heat warning would depend on residents that were not able to acclimatize to extreme heat early in the season and surveillance of hospital visits attributable to extreme heat.

Under the HWIS, the province has been divided into three regions, northern, southern and extreme south-west (Windsor) area. Each region has its own updated temperature and Humidex (see definition below) criteria based on health evidence and climatology for each region. ECCC issues Heat Warnings 18 to 24 hours in advance of an extreme heat event when two consecutive days of weather that meets or exceeds the criteria set for Humidex and temperature (daytime highs and nighttime lows) are expected. PHUs are notified in advance of issuing a Heat Warning to allow for earlier preparation and enhanced monitoring.

The HWIS includes criteria incorporating ambient air temperature for both day time highs and night time highs or a Humidex value for at least two days. See table below.

Heat Warning** Region	Condition	Duration
Extreme Southwestern Ontario (Essex & Chatham- Kent Counties)	$T_{max}^* \geq 31^{\circ}\text{C}$ and $T_{min} \geq 21^{\circ}\text{C}$ <u>OR</u> Humidex ≥ 42	2+ days
Remainder of Southern Ontario (including District of Parry Sound)	$T_{max} \geq 31^{\circ}\text{C}$ and $T_{min} \geq 20^{\circ}\text{C}$ <u>OR</u> Humidex ≥ 40	2+ days
Northern Ontario	$T_{max} \geq 29^{\circ}\text{C}$ and $T_{min} \geq 18^{\circ}\text{C}$ <u>OR</u> Humidex ≥ 36	2+ days

** T_{max} represents maximum daily temperature. T_{min} represents minimum nighttime temperature.

** A heat warning is for a two-day event.

The following sources were relied on for the compilation of the above descriptions:

Meteorological Service of Canada – Ontario Weather Conditions and Forecast by Location
https://weather.gc.ca/forecast/canada/index_e.html?id=ON

Environment and Climate Change Canada (ECCC) <https://www.canada.ca/en/environment-climate-change/services/seasonal-weather-hazards/spring-summer.html>

Canadian Centre for Occupational Health & Safety – Humidex Rating and Work – July 2, 2019
https://www.ccohs.ca/oshanswers/phys_agents/humidex.html

Environment & Climate Change Canada – Heat Warning Information System Harmonization
<https://www.canada.ca/en/environment-climate-change/news/2016/05/heat-warning-and-information-system-harmonization.html>

Environment and Climate Change Canada (ECCC) -Criteria for Public Weather Alerts
<https://www.canada.ca/en/environment-climate-change/services/types-weather-forecasts-use/public/criteria-alerts.html#heat>

MOHLTC - A Harmonized Heat Warning and Information System for Ontario (HWIS)
http://health.gov.on.ca/en/common/ministry/publications/reports/heat_warning_information_system/heat_warning_information_system.aspx

Toronto Public Health – The City of Toronto’s Hot Weather Response Plan – 2019 [https://www.toronto.ca/wp-content/uploads/2019/05/9030-2019-HWR-Framework-updated-05-22-19.AODA .pdf](https://www.toronto.ca/wp-content/uploads/2019/05/9030-2019-HWR-Framework-updated-05-22-19.AODA.pdf)

Overview of Hot Weather-Related Illness and Conditions

LTCH staff should be familiar with hot weather-related illness and factors that contribute to their development. The ability to recognize signs and symptoms of hot weather-related illness and to respond promptly may prevent illness, injury or even death. Refer to *Appendix C* for a basic chart outlining a range of heat-related illness. In this section, some of the most common heat related illness and conditions are discussed.

Heat stress may occur under those conditions, which include high temperatures and humidity, exposure to direct sun or heat, limited air movement, physical exertion, and existence of a poor physical condition, certain medications and inadequate ability to adjust to hot environments. Heat induced illness may include heat rash, heat cramps, heat exhaustion and heat stroke.

Heat Rash

Heat rash, also called prickly heat, is a skin irritation caused by excessive sweating during hot, humid weather. Sweat glands become clogged and sweat trapped beneath the skin surface unable to evaporate causing a mild inflammation or rash. The rash appears as a cluster of red bumps and may feel itchy, or sore with prickly sensation. It is more likely to occur on the neck and upper chest, in the groin, under the breasts, and in elbow creases. The best treatment for heat rash is to provide a cooler, less humid environment. Keep the affected area dry. Creams or lotions should not be used.

Heat Cramps

Heat cramps are muscle pains or spasms- usually in the abdomen, arms, or legs that may occur in association with strenuous activity. This sweating depletes the body's salt and moisture. The low salt level in the muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion. To alleviate heat cramps, stop all activities and sit quietly in a cool place. Drink clear juice or a sports beverage. If the person has heart problems or is on a low-sodium diet, seek medical attention.

Heat Exhaustion

Heat exhaustion is a milder form of heat-related illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids. Those most prone to heat exhaustion are elderly people, those with high blood pressure, and those working or exercising in a hot environment.

Warning signs of heat exhaustion include the following:

- Heavy sweating
- Paleness
- Muscle cramps
- Tiredness
- Weakness
- Dizziness
- Headache

- Nausea or vomiting
- Fainting

The skin may be cool and moist. The pulse rate will be fast and weak, and breathing will be fast and shallow. If heat exhaustion is untreated, it may progress to heat stroke. Seek medical attention if symptoms worsen or last longer than one hour.

Heat Stroke

Heat stroke is the most serious heat-related illness. It occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. Body temperature may rise to 41.1 °C or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not provided.

Warning signs of heat stroke vary but may include the following:

- An extremely high body temperature (above 39.4°C)
- Red, hot, and dry skin (no sweating)
- Rapid, strong pulse
- Throbbing headache
- Dizziness
- Nausea
- Confusion
- Unconsciousness

If you see any of these signs, you may be dealing with a life-threatening emergency. Have someone call for immediate medical assistance while you begin cooling the person. Heat stroke can result in death or permanent disability if emergency treatment is not provided in a timely manner.

Understanding the various heat related illness and conditions, especially heat stroke and heat exhaustion is important. However, it is also important to be able to identify the risk factors that may place LTCH residents at increased risk of developing these illness and conditions.

The following sources were relied on for the compilation of the above descriptions:

Centres for Disease Control and Prevention - Warning Signs and Symptoms of Heat Related Illness
<https://www.cdc.gov/disasters/extremeheat/warning.html>

Centres for Disease Control and Prevention - Frequently Asked Questions about Extreme Heat - June 1, 2012
<https://www.cdc.gov/disasters/extremeheat/faq.html>

World Health Organization (WHO) - Public Health Advice on Preventing Health Effects of Heat, 2011
<https://www.who.int/globalchange/publications/heat-and-health/en/>

Protecting Residents Living in (LTCH) In Hot Weather Conditions

The *Long-Term Care Homes Act 2007* (LTCHA), which came into force on July 1, 2010, outlines requirements specific to hot weather seasonal risk and hot weather-related illnesses including:

Long-Term Care Homes Act, 2007 (LTCHA) – O. Reg. 79/10 Section 20 (1)

Every licensee of a long-term care home shall ensure that a written hot weather related illness prevention and management plan for the home that meets the needs of the residents are developed in accordance with evidence-based practices and, if there are none, in accordance with prevailing practices and is implemented when required to address the adverse effects on residents related to heat.

(2) The license shall ensure that, if central air conditioning is not available in the home, the home has at least one separate designed cooling area for every 40 residents.

Section 21 Every licensee of a long-term care home shall ensure that the home is maintained at a minimum temperature of 22 degrees Celsius.

Section 26 (3) A plan of care must be based on, at a minimum, interdisciplinary assessment of the following with respect to the resident: ...

11. Seasonal risk relating to hot weather ...
14. Hydration status and any risks relating to hydration ...

Section 26 (4) The licensee shall ensure that a registered dietitian who is a member of the staff of the home,

- (a) completes a nutritional assessment for all residents on admission and whenever there is a significant change in a resident's health condition; and
- (b) assesses the matters referred to in paragraphs 13 and 14 of subsection (3)

The following sections on Resident Risk Assessment, Preparations and Planning, Prevention and Interventions are designed to provide LTCHs with an interdisciplinary approach to preventing and managing heat related illness. Understanding and being able to identify the risk factors for heat related illness in LTCH residents should be the responsibility of everyone involved in the life of the residents.

Note: *These sections are intended as a guide only, to support LTCHs in their effort to develop and implement plans to address hot weather conditions specific to the needs of residents living in their LTCH and consistent with legislative requirements outlined in the LTCHA.*

Resident Risk Assessment

Residents' risk of developing adverse effects due to heat exposure is subject to a number of variables such as the ambient temperature and humidity in the home, health and functional status, clothing and level of activity, hydration and nutrition. However, residents in LTCHs are at an increased risk of hot weather-related illness due to normal physiological changes. They are admitted to a LTCH due to their medical status, age and self-care deficits that may impact their ability to respond to a hot weather-related illness. Older adults may not recognize the signs of thirst, may not drink sufficient fluids to maintain adequate hydration, may have difficulty regulating body temperature and may have a decreased awareness of their body's needs. The majority of residents in LTCHs are likely to suffer from one or more medical conditions or take medications that may increase fluid loss, affect sweat production or impair the body's ability to regulate internal temperature. In addition, residents' risk of having an adverse reaction to heat is also subject to environmental variables including air temperature, humidity, radiant temperature and air movement. Understanding and being able to identify the risk factors to LTCH residents is essential to preventing the possible onset of heat related illness and conditions.

There are several additional risk factors (refer to Table A) that place some residents at an increased risk of hot weather-related illness. It should be noted that the following list of additional risk factors is not exhaustive, and the factors are not in any particular order. In addition, little conclusive medical evidence exists that allows for these factors to be classified by severity. Therefore, they are not assigned any particular numerical score for the purpose of developing an overall risk score for this resident.

Table A: Additional Risk Factors

Risk Category	Risk Description
History of Heat Related Illness or Heat Intolerance:	History of: <ul style="list-style-type: none"> ▪ heat related illness or heat intolerance (i.e. heat exhaustion, heat stroke) ▪ infection with or without fever ▪ poor fluid intake or dehydration ▪ failure to thrive or malnourishment
Functional Status:	<ul style="list-style-type: none"> ▪ dysphagia ▪ severe general debility/bedridden ▪ significant decline in activities of daily living ▪ cognitive impairment including poor judgment ▪ enteral/tube feeds

Medical Status:

- obesity
- cardiovascular disease
- respiratory disease
- endocrine disorders
- renal disease
- skin disease
- combination of two or more of the following medications; diuretics, anticholinergic drugs, psychotropic medications, tricyclic anti-depressants, and antihypertensive medications

All residents are at risk of heat related illness. After completing the risk assessment, it should be determined whether residents are:

- at increased risk during hot weather; OR
- potentially at increased risk during hot weather

Preparation & Planning

In order to respond appropriately to hot weather conditions, LTCHs should prepare in advance of the hot weather season and review and update annually a plan that will be in effect during the hot weather season. Table B below outlines the actions that each general department in a LTCH should undertake in preparation and planning for hot weather conditions. The breakdown of actions by departments reflects the assumption that while heat related illness is preventable, it requires an interdisciplinary approach to the provision of resident care.

Table B

Departments	Actions
Administration	<ul style="list-style-type: none"> ▪ Develop policies and procedures relating to preparation, planning prevention and management of resident heat illness and that incorporates the individual attributes of the home environment. ▪ Develop a communication protocol to convey hot weather action plan (including humidex readings) to residents, staff, volunteers, family, visitors and others as required. ▪ Implement annual staff education and training program on prevention and management of heat related illness and hot weather plan. ▪ Make available and maintain appropriate cooling equipment and other resources. ▪ Establish linkages with community-based services which can assist as necessary with temporary heat relief strategies during extreme hot weather conditions.
All Staff	<ul style="list-style-type: none"> ▪ Attend annual staff education and training program on prevention and management of heat related illness. ▪ Contribute to interdisciplinary care plans for heat-related illness. ▪ Review policies and procedures for health-related emergencies. ▪ Identify need for additional cooling resources as warranted.
Medical / Nursing	<ul style="list-style-type: none"> ▪ Complete resident risk assessments for seasonal risk relating to hot weather. ▪ Identify residents who are at an increased risk of or potentially at risk of heat related illness and communicate to interdisciplinary team members. ▪ Develop interdisciplinary resident care plans for seasonal risk related to hot weather. ▪ Notify resident/substitute decision maker and families of the requirement for appropriate hot weather clothing and accessories.

<p>Food Service / Nutritional Care</p>	<ul style="list-style-type: none"> ▪ Develop enhanced hydration protocols including the type, amount and frequency of fluids to be offered to residents during hot weather conditions. ▪ Plan alternate menus to replace hot entrees and support the reduced use of heat generating equipment. ▪ Develop protocol for residents with dysphasia who require thickened fluids. ▪ Assess and develop a plan for each resident’s hydration status and determine any risks related to hydration i.e. altered fluid requirements including those residents on enteral nutritional replacement therapies, fluid restrictions, thickened fluids, etc. ▪ Ensure plans include those residents who are unable to access fluids independently (e.g. those who require feeding assistance and adaptive aids). ▪ Evaluate the need for and provide electrolyte replacement as necessary.
<p>Activation</p>	<ul style="list-style-type: none"> ▪ Develop seasonal activation program or modify existing programs for hot weather to decrease physical exertions. ▪ Identify cooler areas of the home interior and protected outdoor areas for programs. ▪ Plan for the distribution of additional fluids during activity programs with input from dietary department staff. ▪ Plan community outings that are located in appropriate cool settings and include the use of air-conditioned transportation. ▪ Plan for availability of cool rest/break area during outdoor activities especially during peak hot times of the day. ▪ Collaborate with nursing to advise resident/substitute decision maker and families of the requirement for appropriate hot weather clothing and accessories.
<p>Physical Plant Maintenance</p>	<ul style="list-style-type: none"> ▪ Review and update the home’s hot weather contingency plan. ▪ Review and update the building and equipment audit program including a review of strategies for keeping the building as cool as possible. Refer to <i>Appendix D</i>. ▪ Review and implement agreements with external contractor’s responsibility for building systems to support preventative maintenance of cooling systems. ▪ Review and update the home’s internal “Preventative Maintenance Plan”. ▪ Ensure generator is functional with backup fuel supplies. ▪ Implement routine checks to assess indoor temperatures and humidex levels. Refer to <i>Appendix B</i> for humidex tables and measurement strategies. <i>Note: Maintain air at a minimum temp of 22°C and monitor to ensure air conditioned /or cooled rooms do not fall below 22°C.</i> ▪ Ensure homes without central air conditioning have at least one separate designated cooling area for every 40 residents (see s. 20(2) of O.Reg. 79/10).

Prevention

While the previous section on Preparation & Planning provides a review of actions to be taken prior to the hot weather season, this section is designed to provide guidance during the summer months and considered when hot weather conditions are most likely to occur. The actions listed below in Table C are unique to Prevention. Prevention is a deliberate, action-oriented process that can significantly reduce the likelihood of serious resident hot weather-related illness. The actions outlined below are resident focused and incorporate environmental considerations. Refer to *Appendix E* for a tip sheet designed to assist families during resident outings. Note that these actions are not to be considered a substitute for medical advice and a physician should always be consulted if there are any concerns.

Table C

Departments	Actions
Administration	<ul style="list-style-type: none"> ▪ Implement policies and procedures. ▪ Monitor and assess the need to declare heat related emergency.
All Staff	<ul style="list-style-type: none"> ▪ Implement, evaluate and monitor the results of a hot weather-related plan. ▪ Monitor residents for signs and symptoms of heat related illness. ▪ Monitor indoor climate for overall comfort and report resident discomfort and / or temperature changes that would affect overall resident well-being health and safety. ▪ Keep shades, drapes, blinds or window coverings closed.
Medical / Nursing	<ul style="list-style-type: none"> ▪ Assess need for and provide additional fluids to residents 24 hours per day, and seven days per week based on assessed need. ▪ Refer residents at increased risk due to poor fluid intake to Registered Dietitian for further assessment and action. ▪ Assess and implement body cooling strategies as required. ▪ Assess and provide additional skin care in response to hygiene requirements of each resident. ▪ Dress residents in suitable clothing and accessories that are appropriate for the weather conditions.
Food Service / Nutritional Care	<ul style="list-style-type: none"> ▪ Assess the need to implement all or part of alternate menu plans or modify menus, including reducing the use of heat generating equipment.

	<ul style="list-style-type: none"> ▪ Assess the hydration status of residents and ensure the provision of additional fluids, including, but not limited to implementing additional beverage passes and/or provision of additional beverages in accessible locations. ▪ Offer a variety of beverage choices at meals and with snacks. ▪ Implement enhanced hydration protocols for those residents at increased risk for hot-weather related illness. ▪ Ensure assistance is provided for residents who are unable to access fluids independently e.g. feeding assistance and adaptive devices.
Activation	<ul style="list-style-type: none"> ▪ Carry out activity programs inside in cooler areas of the home utilizing additional cooling sources as warranted. ▪ Refrain from moderately intense physical activity. ▪ Incorporate frequent rest breaks and seated activities into programs. ▪ Provide fluid and additional external body cooling aids as needed. ▪ Limit outdoor activities to cooler times of the day and provide those activities in areas that are shaded from the sun. ▪ Encourage residents where feasible or appropriate to dress in appropriate clothing and provide sun blocking accessories.
Physical Plant Maintenance	<ul style="list-style-type: none"> ▪ Implement strategies to maximize ventilation. ▪ Distribute cooling equipment and portable fans. ▪ Maximize use of an ice machine to support a continuous supply of ice. ▪ Monitor the indoor air temperatures and humidex levels at varying times throughout the day so that the indoor air temperature does not fall below 22° C and remains cooler and less humid than outdoor air conditions Refer to <i>Appendix B</i>. ▪ Ensure homes without central air conditioning have at least one separate designated cooling area for every 40 residents (see s. 20(2) of O.Reg. 79/10).

Intervention

This section describes the Interventions that are recommended during prolonged, severe hot weather. It is understood that all Prevention actions discussed in the previous section will be ongoing. The actions that are outlined in Table D are not to be considered a substitute for medical advice and a physician should always be consulted if there are any concerns relating to resident health or general well-being.

Table D

Departments	Actions
Administration	<ul style="list-style-type: none"> ▪ Implement resident care policies and procedures related to hot weather conditions. ▪ Implement environmental policies and procedures related to hot weather conditions. ▪ Determine when emergency contingency plans are to be implemented.
All Staff	<ul style="list-style-type: none"> ▪ Monitor residents' responses to interventions implemented.
Medical / Nursing	<ul style="list-style-type: none"> ▪ Notify physician of any resident suspected or assessed to have heat related illness. ▪ Request consultation with a Registered Dietitian for those residents experiencing any degree of hot weather illness.
Food Service / Nutritional Care	<ul style="list-style-type: none"> ▪ Monitor, evaluate and reassess fluid requirements as needed based on signs and symptoms in all residents with a particular focus on those assessed as being at high risk, including residents receiving enteral nutritional therapy, thickened fluids, fluid restrictions, and those residents who require assistance with eating and drinking. ▪ Determine the need to provide interventions to correct electrolyte imbalances.
Activation	<ul style="list-style-type: none"> ▪ Avoid/cancel outdoor programming in areas that do not provide for air-conditioned transport to air-conditioned indoor settings. ▪ During programs, if resident status changes, immediately notify registered staff and obtain assistance; administer first aid as necessary and implement appropriate heat illness interventions.
Physical Plant Maintenance	<ul style="list-style-type: none"> ▪ Move residents to common air conditioned/cooled areas ▪ Reduce the use of heat generating equipment from kitchen, laundry and other areas to alternate times during the day (night / evening). ▪ Turn off unused electrical appliances and equipment as appropriate. ▪ Implement alternate methods for air cooling as appropriate.

Conclusion

The “*Guidelines for the Prevention and Management of Hot Weather-Related Illness in Long-Term Care Homes*” (the Guidelines) were developed by the Ministry of Long-Term Care (MLTC) as a reference or source of information for LTCHs in recognition of the serious risks to residents associated with hot weather conditions.

The MOHLTC had released earlier guidelines on the “Prevention and Management of Hot Weather-Related Illness in Long-Term Care Facilities” in June 1989, which were subsequently updated in May 1990, June 2006, July 2007 and July 2012. The MLTC acknowledges that since the release of these earlier Guidelines, LTCHs have made considerable progress in the prevention and management of hot weather illness and conditions. Accordingly, these Guidelines address the new legislation *Long-Term Care Homes Act, 2007* and its Regulation, which came into force on July 1, 2010, including requirements relevant to the protection of residents during seasonal temperatures and hot weather heat related illness.

These Guidelines are posted on www.ltchomes.net.

Resources

The following links and resources have been compiled to help Long-Term Care homes access other health related web sites. Not all the following websites are maintained or endorsed by the Ontario government. LTCHs are encouraged to review the Ministry of Long-Term Care's policy concerning external links at:

www.health.gov.on.ca/english/common/discomfort.html

Canadian Centre for Occupational Health & Safety

Canadian Centre for Occupational Health & Safety – Humidex Rating and Work – July 2, 2019 https://www.ccohs.ca/oshanswers/phys_agents/humidex.html

Canadian Mortgage and Housing Corporation

Canadian Mortgage and Housing Corporation – Measuring Humidity in Your Home, 2009 <ftp://ftp.cmhc-schl.gc.ca/chic-ccd/AboutYourHouse-VotreMaison/NH18-24-1-2009-eng.pdf>

Centres for Disease Control and Prevention

Centres for Disease Control and Prevention - Warning Signs and Symptoms of Heat Related Illness <https://www.cdc.gov/disasters/extremeheat/warning.html>

Centres for Disease Control and Prevention - Frequently Asked Questions about Extreme Heat - June 1, 2012 <https://www.cdc.gov/disasters/extremeheat/faq.html>

Environment and Climate Change Canada (ECCC)

Environment and Climate Change Canada (ECCC) <https://www.canada.ca/en/environment-climate-change/services/seasonal-weather-hazards/spring-summer.html>

Environment and Climate Change Canada (ECCC) -Criteria for Public Weather Alerts <https://www.canada.ca/en/environment-climate-change/services/types-weather-forecasts-use/public/criteria-alerts.html#heat>

Environment & Climate Change Canada – WeatherCAN <https://www.canada.ca/en/environment-climate-change/services/weather-general-tools-resources/weathercan.html>

Environment & Climate Change Canada – Heat Warning Information System Harmonization <https://www.canada.ca/en/environment-climate-change/news/2016/05/heat-warning-and-information-system-harmonization.html>

Environmental Protection Agency (US)

Environmental Protection Agency – Heat Island Effects <https://www.epa.gov/heat-islands/heat-island-impacts>

Environmental Protection Agency - Moisture Control Guidance for Building Design, Construction and Maintenance, December 2013
<https://www.epa.gov/sites/production/files/2014-08/documents/moisture-control.pdf>

Health Canada

Health Canada – Extreme Heat Events Guidelines, 2011 <https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/climate-change-health/adapting-extreme-heat-events-guidelines-assessing-health-vulnerability-health-canada-2011.html>

Health Canada - Extreme Heat Events Guidelines– Technical Guide for Health Care Workers
<https://www.canada.ca/en/health-canada/services/environmental-workplace-health/reports-publications/climate-change-health/extreme-heat-events-guidelines-technical-guide-health-care-workers.html>

Meteorological Service of Canada

Meteorological Service of Canada – Ontario Weather Conditions and Forecast by Location
https://weather.gc.ca/forecast/canada/index_e.html?id=ON

Ministry of Energy, Northern Development and Mines

Ministry of Energy, Northern Development and Mines – Manage Energy Costs for your Business <https://www.ontario.ca/page/manage-energy-costs-your-business#section-1>

Ministry of Health & Long-Term Care

MOHLTC - A Harmonized Heat Warning and Information System for Ontario (HWIS)
http://health.gov.on.ca/en/common/ministry/publications/reports/heat_warning_information_system/heat_warning_information_system.aspx

Natural Resources Canada

Natural Resources Canada - Improving Window Energy Efficiency, 2011
https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/energy/pdf/energystar/IWEE_EN.pdf

Natural Resources Canada – Energy Efficiency in Existing Buildings
<https://www.nrcan.gc.ca/energy-efficiency/energy-efficiency-buildings/energy-efficiency-existing-buildings/20682>

Public Health England

Public Health England - Heatwave Plan for England – supporting vulnerable people before and during a heatwave –advice for health and social care professionals, May 2015
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/801539/Heatwave plan for England 2019.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/801539/Heatwave_plan_for_England_2019.pdf)

Toronto Hydro

Toronto Hydro – Resources for Businesses <https://www.torontohydro.com/business/tips-and-resources>

Toronto Public Health

Toronto Public Health – The City of Toronto’s Hot Weather Response Plan – 2019
[https://www.toronto.ca/wp-content/uploads/2019/05/9030-2019-HWR-Framework-updated-05-22-19.AODA .pdf](https://www.toronto.ca/wp-content/uploads/2019/05/9030-2019-HWR-Framework-updated-05-22-19.AODA.pdf)

United States Department of Energy

U.S. Department of Energy – Energy efficient, windows, doors and skylights
<https://www.energy.gov/energysaver/design/windows-doors-and-skylights>

U.S. Department of Energy – Building Technologies Program Air Leakage Guide
www.energy.gov.
https://www.energy.gov/sites/prod/files/2013/11/f5/cold_climate_guide_40percent.pdf

U.S. Department of Energy - Cool Roofs -
<https://www.energy.gov/energysaver/design/energy-efficient-home-design/cool-roofs>

U.S. Department of Energy - A Homeowner’s Guide to Window Air Conditioner Installation for Efficiency and Comfort – 2013
https://www.energy.gov/sites/prod/files/2013/11/f5/case_study_ac_installation_guide.pdf

World Health Organization

World Health Organization – Heat Waves: Risks and Responses, 2004,
<http://www.euro.who.int/en/publications/abstracts/heat-waves-risks-and-responses>

World Health Organization (WHO) - Public Health Advice on Preventing Health Effects of Heat, 2011 <https://www.who.int/globalchange/publications/heat-and-health/en/>

Appendix A

TIPS FOR PROTECTING (LTCH) STAFF IN HOT WEATHER CONDITIONS

Legislation and Regulations

Under section 25(2)(h) of the **Occupational Health and Safety Act, 1990 (OHSA)**,

“Employers shall take every precaution reasonable in the circumstances for the protection of the worker”.

Under Ontario Regulation 67/93, entitled “**Health Care and Residential Facilities**”, written under the OHSA, which applies to Long-Term Care Homes;

8. *“Every employer in consultation with the joint health and safety committee or health and safety representative, if any, and upon consideration of the recommendation thereof, shall develop, establish and put into effect measures and procedures for the health and safety of workers”.*

9.(1) *The employer shall reduce the measures and procedures for the health and safety of workers established under section 8 to writing and such measures and procedures may deal with, but are not limited to, the following:*

1. *Safe work practices.*
2. *Safe working conditions.*

19. (1) *General indoor ventilation adequate to protect the health and safety of a worker shall be provided by natural or mechanical means.*

21. (1) *an enclosed workplace shall be maintained at a temperature,*

- (a) that is suitable for the type of work performed;*
- (b) that is no less than 18 degrees Celsius; and*
- (c) that is not likely to cause physical stress because of heat.*

For work environments that are likely to cause physical stress because of heat, whereby the core body temperatures begin to rise over 37°C, mitigation strategies must be implemented as noted in the regulatory requirements for all staff. Some interventions or engineering controls are noted below. An overall LTCH hot weather illness prevention and management plan required under s. 21 of O. Reg. 79/10 can be used for staff as well, as long as it includes the employee specific information required under the regulatory sections identified above.

Interventions or Engineering Controls

The most effective way of controlling heat is at its source. Some tips to help protect staff during extreme summer temperatures include:

- Reduce the temperature and humidity through air cooling, if possible
- Provide air-conditioned rest locations
- Increase air movement using fans (only if temperature is less than 35°C)
- Reduce physical demands of work tasks where possible
- Avoid direct contact with sunlight – lower shades/blinds, pull draperies
- Wearing appropriate clothing for the conditions
- Staff should wear light summer clothing that permits air movement and sweat evaporation
- Staff working outside should wear light-coloured clothing, a hat and apply sunscreen at frequent intervals.

Administrative Work Practice Controls

- Provide plenty of cool drinking water near workers and urge staff to drink small amounts frequently (for example, one cup of water every 20 minutes)
- Assess the physical demands of job descriptions and monitor work tasks
- Avoid direct contact with sunlight
- Increase frequency and length of rest breaks
- Attempt to schedule work with high physical demands during the cooler times of the day
- Assign additional staff and/or reduce the pace of work, if possible
- Schedule strenuous outdoor jobs at cooler times of the day
- Pregnant staff or staff with a medical condition should consult with their health care provider about working in hot weather conditions.
- The employer should investigate all complaints of heat-related illness.

Educate staff on heat-related illness, including:

- Signs and symptoms
- Predisposing factors and conditions
- Interventions or engineering controls
- First aid procedures
- Employee responsibilities in avoiding heat-related illness
- Use of protective equipment (if outdoors or working with heat generating equipment)
- Work practice and engineering controls
- Hot weather-related prevention and management response plan

Appendix B

TAKING HUMIDITY AND TEMPERATURE READINGS

The Meteorological Service of Environment Canada monitors the outdoor humidex (humidity and temperature combined) daily in various locations throughout Ontario. If the humidex is not monitored in your area, the LTCH should consider assigning the task to someone. When outdoor air temperatures begin to approach approximately 25°C, a thermal electronic or mechanical hygrometer may be placed outside in a shaded area. Once the temperature and humidity have been determined, use the table below to determine the corresponding humidex value.

What is the importance of humidity?

The body attempts to maintain a constant internal temperature of 37°C at all times. In hot weather, the body produces sweat, which cools the body as it evaporates. As the humidity or the moisture content in the air increases, sweat does not evaporate as readily. Sweat evaporation stops entirely when the relative humidity reaches about 90 percent. Under these circumstances, the body temperature rises and may cause illness.

Indoor humidity and temperature levels

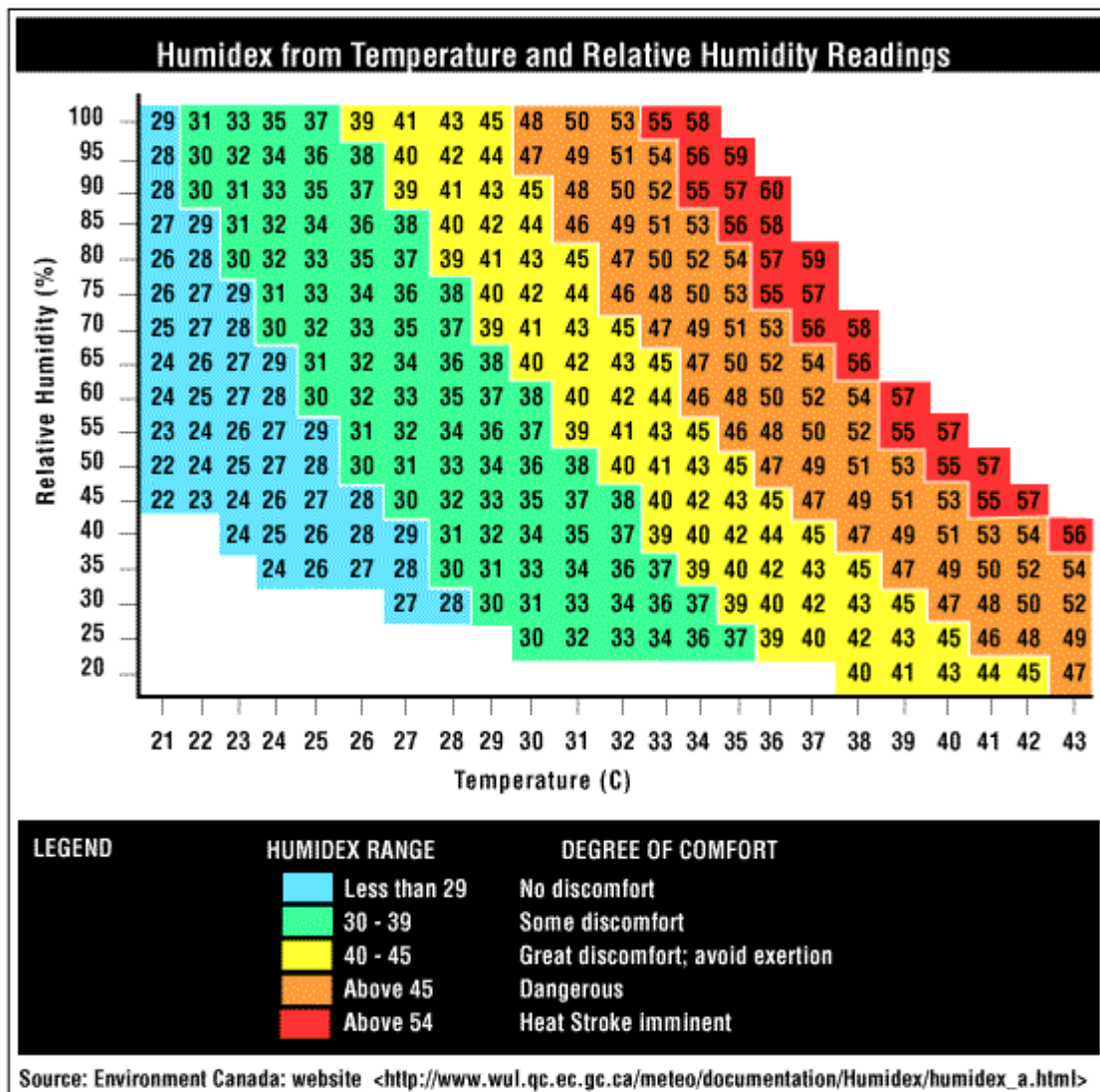
It is a good practice to take indoor temperature and humidity levels in order for staff to be on heightened alert for symptoms of resident distress. The response to resident symptoms is based on indoor measurements not weather station/media reports (temperatures inside buildings do not necessarily correspond with outside temperatures). If the building is large or has a number of segregated areas, place a hygrometer in each area. Identify a representative location within the home area where measurements can be taken and will not be affected by direct ventilation, air conditioning, heat sources or sunlight and monitor several times per day, especially as the air temperature approaches 26°C. Humidity levels and temperatures fluctuate throughout the day and night. According to the accompanying legend in chart below, humidex levels between 30 and 39 will result in some people feeling uncomfortable and some may begin to present with signs and symptoms of heat related illness. Staff should be on heightened alert for any signs of resident distress or heat related symptoms when values fall within this zone.

How do I know what the humidex is?

If you know the temperature and relative humidity, the following chart can be used to determine the humidex rating. For example, if the temperature is 30°C and the relative humidity is 70%, the humidex rating is 41. This level is considered a level of “great discomfort” and exertion should be avoided.

Compare your readings with the chart below. Align your air temperature with the temperature row across the bottom of the chart below and your humidity level with the humidity column (far left). The humidex value is where the two numbers meet.

(Visit the website below to properly view the colour-coded humidex chart or to order a poster of the chart)



The following sources were relied on for the compilation of the above descriptions:

Environment and Climate Change Canada (ECCC) <https://www.canada.ca/en/environment-climate-change/services/seasonal-weather-hazards/spring-summer.html>

Meteorological Service of Canada – Ontario Weather Conditions and Forecast by Location https://weather.gc.ca/forecast/canada/index_e.html?id=ON

Meteorological Service of Canada – Humidex Calculator https://weather.gc.ca/windchill/wind_chill_e.html

Appendix C

HOT WEATHER-RELATED ILLNESS

People suffer heat-related illness when the body's temperature control system is overloaded. The body normally cools itself by sweating. But under some conditions, sweating becomes insufficient. In some cases, the person's body temperature rises rapidly. Very high body temperatures may damage the brain or other vital organs. Several factors affect the body's ability to cool itself during extremely hot weather. When the humidity is high, sweat will not evaporate as quickly, preventing the body from releasing heat quickly. Other conditions that can limit the ability to regulate temperature includes age i.e. elderly persons over 65 or young children (age 0-4), obesity, fever, dehydration, heart disease, mental illness, poor circulation, sunburn, and prescription drug use and alcohol use.

The chart below describes various conditions of heat induced illness including heat rash, heat cramps, heat exhaustion, and heat stroke.

Condition	Description	Symptoms	Steps to Take
Heat Rash	A skin irritation caused by excessive sweating with exposure to hot, humid weather. Sweat glands become clogged with sweat trapped beneath the skin surface unable to evaporate causing a mild inflammation or rash. Also known as prickly heat.	<ul style="list-style-type: none"> • Cluster of red bumps. • Likely to appear on neck; upper chest; groin areas; under the breasts; and in elbow creases. • May feel itchy, or sore, with prickly sensation. 	<ul style="list-style-type: none"> • Provide a cooler, less humid environment. • Keep the affected area dry. • Do not use creams or lotions on the affected areas.
Heat Cramps	Heat cramps are muscle pains or spasms. Excessive sweating depletes the body's salt and moisture. The low salt level in the muscles causes painful cramps. Heat	<ul style="list-style-type: none"> • Painful muscle cramps or spasms, usually felt in the abdomen, arms, or legs. • Heat cramps may also be a symptom of heat exhaustion. 	<p>Seek medical attention for heat cramps:</p> <ul style="list-style-type: none"> • If cramps do not subside in one (1) hour. • If heart problems known. • If person is on low sodium diet. <p>If medical treatment not necessary:</p> <ul style="list-style-type: none"> • Stop all activities and rest quietly in a cool place.

			<ul style="list-style-type: none"> • Provide beverage of clear juice or sports beverages. • Avoid strenuous activities for a few hours after the cramps subside as may lead to heat exhaustion or heat stroke.
Heat Exhaustion	Heat exhaustion is a milder form of heat-related illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids. Those most prone are elderly people with high blood pressure, and those working or exercising in a hot environment.	<p>Warning signs of heat exhaustion:</p> <ul style="list-style-type: none"> • heavy sweating • paleness • muscle cramps • tiredness • weakness • dizziness • headache • nausea or vomiting • fainting • skin may be cool and moist • pulse rate fast and weak • breathing fast and shallow 	<p>Steps to cool the body during heat exhaustion:</p> <ul style="list-style-type: none"> • Drink cool, non-alcoholic beverages. • Rest. • Cool shower, bath, or sponge bath. • Provide air-conditioned or air-cooled environment. • Wear lightweight clothing. <p>If heat exhaustion is untreated, it may progress to heat stroke.</p>
Heat Stroke	Is the most serious heat-related illness. It occurs when the body becomes unable to control its temperature: The body temperature rises rapidly; sweating mechanism fails; body is unable to cool down, and body temperature may rise to 40°C or higher within 10 to 15 minutes.	<p>Warning signs of heat stroke vary but may include:</p> <ul style="list-style-type: none"> • body temperature above 40°C • red, hot, and dry skin (no sweating) • rapid, strong pulse • throbbing headache • dizziness • nausea • confusion • unconsciousness 	<p>Heat stroke can cause death or permanent disability if emergency treatment is not provided in a timely manner</p> <ul style="list-style-type: none"> • Have someone call for immediate medical assistance while you begin to cool the person rapidly. • Do not give the person alcohol to drink. • Get medical assistance as soon as possible.

Appendix D

THE IMPACT OF HOT WEATHER ON INDOOR ENVIRONMENT

Hot weather conditions can negatively impact the health of building occupants, especially residents of LTCHs. Homes that do not provide air conditioning should find alternative cooling mechanisms to reduce the risk of heat related illness. Homes without central air conditioning must have at least one separate designated cooling area for every 40 residents (see s. 20(2) of O.Reg. 79/10 under the LTCHA).

The impacts of hot, humid outdoor air on the indoor environment are many, including overheated equipment, sweating pipes, wet floors, deterioration and corrosion of electronic contacts and related components. Whether old or new, all long-term care buildings experience challenges with cooling their environment. Some have mechanical ventilation and air conditioning systems while others have only exhaust fans and natural (window) ventilation. Regardless of the type or location of the building, it is possible to find measures to decrease the impacts of hot weather on indoor environments, increase building energy efficiency, increase resident and staff comfort and even improve indoor air quality.

STRATEGIES TO KEEP THE INDOOR ENVIRONMENT COOLER

The best strategies to prevent heat-related illness in the indoor environment include the installation of central or portable air conditioning in common spaces. However, if the home is not able to provide air-conditioning, finding alternative strategies is necessary.

Building & Equipment Audit

A building and equipment audit should be part of a comprehensive preventative maintenance program to identify areas that require attention in preparation for hot weather conditions. As part of the audit process, the following may be considered:

Exterior Building Checks

- Doors and windows are in good working condition and are properly sealed.
- Entry points for gas pipes and electrical, telephone and cable conduits are properly sealed.
- Ventilation and air supply grilles are clear and unobstructed.
- Outdoor structures such as arbours, awnings etc. are in good condition and safe.
- Wood burning chimney duct dampers are closed off.

Interior Building Checks

- Cleanliness, condition and safety of all portable equipment are checked (air conditioning units, fans, dehumidifiers).
- Condition and safety of all extension cords, electrical outlets, fuse boxes, junction boxes, etc. are checked.
- Condition of ice machines, generator and other equipment (tubs) that may be useful during hot weather is inspected.
- Windows which can potentially accommodate portable A/C units are checked (and the ability to insulate/seal the area).
- Window coverings such as blinds/draperies etc. are available where necessary and in good condition.
- Portable fans and dehumidifiers have designated spaces so they will not contribute to tripping and tipping hazards.
- Thermostats are found to be in good working order, calibrated, unobstructed and are responding to demand. Temperature set points are revised for the warmer season. It is recommended that residents/staff do not have access to common or shared room thermostats unless authorized by maintenance staff.
- Building heating, ventilation and air conditioning system inspection and duct work cleaning are conducted by the end of April each year (coils, drain pans, belts, valves, duct linings, outdoor air dampers, grilles, screens, filters, duct leakage, exhaust systems, pipes).
- Significant changes made to occupant loads within the building, such as renovations, additions or room use changes, with an air balancing audit are followed.
- Ducts that run through unconditioned spaces are properly sealed / insulated.

Energy Efficient Strategies

Energy efficient strategies to keep buildings cool will also help them keep warm in the winter months. Consider the following suggestions:

- Use interior window coverings such as drapes (most effective when made of tightly-woven, opaque material of a light or reflective color that is tight fitting to the window), roller shades or blinds.
- Use exterior window coverings such as louvers, shutters or shade screens (a mesh that looks like a window screen).
- Install shade producing structures such as awnings, roof overhangs and arbours.
- Conduct an electrical capacity assessment (ability to accommodate additional electrical appliances such as fans, portable a/c units etc.).
- Plant trees or large plantings on west and east sides of the building.
- Install radiant barriers in the attic (layer of aluminum foil placed in an air space between a heat-radiating surface such as the roof and a heat-absorbing surface such as the insulation on the floor of the attic).
- Replace typical incandescent light bulbs with compact fluorescent bulbs or LEDs (Light-Emitting Diode).
- Temper the fresh air intake supply to reduce humidity levels of make-up air.

- Insulate pipes to prevent condensation or to reduce heat emissions.
- Ensure adequate attic/roof ventilation and insulation.
- Use light coloured exterior paint and roofing materials Install occupancy sensors (for lighting areas of low or intermittent use such as utility rooms, storage rooms, staff lounges etc.).
- Install air conditioning or coolant system either centrally or in common areas.
- Conduct an energy audit (assess adequacy of ventilation, insulation, lighting fixtures, and window efficiency).

The following sources were relied on for the compilation of the above descriptions:

Natural Resources Canada - Improving Window Energy Efficiency, 2011

https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/energy/pdf/energystar/IWEE_EN.pdf

Natural Resources Canada – Energy Efficiency in Existing Buildings <https://www.nrcan.gc.ca/energy-efficiency/energy-efficiency-buildings/energy-efficiency-existing-buildings/20682>

Toronto Hydro – Resources for Businesses <https://www.torontohydro.com/for-business/tips-and-resources>

U.S. Department of Energy – Energy efficient, windows, doors and skylights

<https://www.energy.gov/energysaver/design/windows-doors-and-skylights>

U.S. Department of Energy – Building Technologies Program Air Leakage Guide www.energy.gov.

https://www.energy.gov/sites/prod/files/2013/11/f5/cold_climate_guide_40percent.pdf

U.S. Department of Energy - Cool Roofs - <https://www.energy.gov/energysaver/design/energy-efficient-home-design/cool-roofs>

U.S. Department of Energy - A Homeowner's Guide to Window Air Conditioner Installation for Efficiency and Comfort – 2013 https://www.energy.gov/sites/prod/files/2013/11/f5/case_study_ac_installation_guide.pdf

Appendix E

FAMILY TIP SHEET FOR (LTCH) RESIDENT OUTINGS DURING HOT WEATHER

Increased physical activity generates additional body heat and sun exposure can significantly add to the body's heat production. Therefore, families who take LTCH residents out on activities during the summer months are strongly encouraged to take extra care and attention. The signs and symptoms of heat related illness can occur quite quickly with little or no prior warning. In hot weather conditions, the changes can occur suddenly with no warning. While the following tips are general in nature, families are always encouraged to check with a physician regarding any special resident fluid restrictions, diet needs, medication or other issues that may interfere with a resident's ability to tolerate heat

WARM WEATHER

Clothing:

A LTCH resident should wear loose, lightweight, light-coloured clothing. A wide brimmed hat will help protect the head and face and sunglasses will help protect the eyes.

Nourishments:

Frequent, smaller meals may be more easily tolerated during hot weather. Encourage fluids before, during and after meals, as appropriate to avoid dehydration. Between meals, frequently offer cool fluids like water, fruit juices and electrolyte replacements drinks. Other hydrating/cooling choices for snacks may include frozen popsicles, juice bars, ice cream, sherbet and watermelon. Alcohol may cause dehydration and should be avoided.

Physical Activity:

Keep physical activity to a minimum. Allow for frequent rests and encourage rest even if the individual does not indicate being tired. Attempt to stay indoors between 11:00 AM and 4:00 PM, the warmest part of the day.

Skin Protections:

If outside, ensure that individuals are kept out of direct sunlight by using shade trees, covered awnings or patio umbrellas. Sunscreen should always be applied, even in the shade, as the elderly are very susceptible to sunburn. Remember to reapply as needed or directed on the package.

Staying Cool:

With safety in mind, use a battery powered or hand-held fan to provide some breeze during warm weather. Keep cool cloths handy to apply to the face, neck, and arms. Cloths can be wrapped around ice cubes for quick cooling and a small water spray mist bottle can help cool individuals rapidly

SEVERE / HOT WEATHER

In addition, families should:

Outings:

- Consider cancelling outings;
- Transportation should be where possible in air-conditioned vehicles.
- Keep outings limited to destinations that are air conditioned such as shopping mall, community centres, places of worship or air-conditioned homes, etc.
- While out, ask or look for the following signs or symptoms of hot weather-related illness:

Ask If They Feel	Look For
Shortness of Breath	Shortness of Breath
Palpitations, throbbing headache	Hot dry skin, flushed skin
Muscle cramps, extreme weakness	Confusion
Nausea, dizziness, light headedness	Lack of co-ordination
Feeling faint, tingling in hands or feet	Unusual swelling of feet and / or ankles

If residents describe or families suspect any signs or symptoms of hot weather-related illness, quickly find the individual a seat in a shaded or air-conditioned environment and rapidly cool them with wet cloths or water baths. Get emergency medical assistance immediately.

In addition, when returning the resident to their LTCH, report to the appropriate staff how the resident tolerated the heat and activity, including how much fluid the resident drank as well as any concerns relating to the general well-being and health of the resident.
