Leamington Mennonite Home
Long Term Care

POLICY AND PROCEDURE

CATEGORY:	**SUBJECT:**	**SECTION:**
Resident Care	**Hot Weather Measures and Protocols**	**H**
		POLICY:
		5
DATE:	**Administrator:**	
September 2004		
REVISION DATES:	**Director of Care:**	
September 2012, June 2015, September 2022		

HOT WEATHER MEASURES AND PROTOCOLS

POLICY:

The Leamington Mennonite Home will follow measures and supporting a protection plan for heat related illnesses and risks for each resident. Our Home has air conditioning throughout, with the temperature maintained at a minimum of 23˚C (74˚F) with a fully functioning generator for back up use in the event of an emergency. This plan will be reviewed annually to ensure it continues to meet the needs and requirements of each resident.

PROCEDURE:

Medical / Nursing will**:**

- Complete resident risk assessments for seasonal risks related 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 risks related to hot weather.

The Registered staff will complete the Resident Risk Assessment at the end of April to prepare for Q2. The MDS RAI Co-ordinator will then incorporate this into each individualized care plan. Prevention and interventions will be initiated to avoid any risk to the resident.

Activities are modified to allow for decrease in physical activities due to heat and frequent rest periods will be encouraged. Residents will be encouraged not to engage in outdoor activity when the temperature is 29˚ or over. Activities will then occur indoors.

The Dietitian will complete an assessment to determine any risks related to hydration. Recommendations will be communicated to the multidisciplinary team to distribute additional fluids and/or alternatives to meet the residents' needs.

Department Leaders will review the plan at departmental meetings prior to the Hot

Weather Season. Education will take place to review Hot weather-related illness, what to assess for and the prevention and interventions to follow.

The Hot Weather Related Illness Chart will be reviewed and a copy given to staff members to understand and refer to for the protection of the resident. Staff will also refer to the residents individualized care plan for any risks related to the resident.

Maintenance Department will continue with Audits for the facility to ensure the building is functioning properly:

- Thermostats are found to be in good working order, calibrated, unobstructed and responding to demand. Temperature set points are revised for the warmer season. Residents/staff do not have access to common or shared room thermostats. Authorized maintenance and management shall co-ordinate all facility temperatures.

- Building heating, ventilation and air conditioning system inspection and duct work cleaning are conducted annually at the end of April each year (coils, drain pans, belts, valves, duct linings, outdoor air dampers, grilles, screens, filters, duct leakage, exhaust systems, pipes).

Families will be instructed on hot weather considerations and signs to look for if they feel the resident is experiencing a heat related illness.

FAMILY TIP SHEET FOR 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 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 the Registered Staff any special resident fluid restrictions, diet needs, medication or other issues that may interfere with a resident's ability to tolerate heat.

WARM WEATHER MEASURES

Clothing:

A 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 11:00am and 4:00pm, 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.

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, 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.

Families who, love one experiences risk with heat related illness can supply a fan, for comfort in their rooms during the hot weather season.

REGISTERED STAFF

RESIDENT RISK ASSESSEMENT

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. Most 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. Understating 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 order. In addition, little conclusive medical evidence exists that allows for these factors to be classified by severity. Therefore, they are not assigned any 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: 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
Function Status:	Dysphagia Severe general debility/bedridden Significant decline in activities of daily

	living Cognitive impairment including poor judgement 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 mediations, 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

Hot Weather-Related Illness

Staff Information Sheet

People suffer heat-related illness when the body's temperature control systems 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, 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 gland become clogged with seat trapped beneath the skin surface unable to evaporate causing a mild inflammation or rash. Also known as prickly heat.	Cluster or 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.	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	Painful muscle cramps or spasms. Usually felt in the abdomen, arms or legs. Heat cramps may also be a symptom of heat exhaustion.	Seek medical attention for heat cramps: If cramps do not subside in (2) hour. If heart problems known. If person is on low sodium diet. If medical treatment

			not necessary: Stop all activities and rest quietly in a cool place. 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.	Warming signs of heat exhaustion: 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	Steps to cool the body during heat exhaustion: Drink cool, non-alcoholic beverages. Rest. Cool shower, bath, or sponge bath. Provide air-conditioned or air-cooled environment. Wear lightweight clothing. If heat exhaustion is untreated, it may progress to heat stroke.
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 degrees Celsius or higher within 10 – 15 minutes.	Warning signs of heat stroke vary but may include: body temperature above 40 degrees Celsius red, hot, and dry skin (not sweating) rapid, strong pulse throbbing headache dizziness nausea confusion unconsciousness	Heat Stroke can cause death or permanent disability if emergency treatment is not provided in a timely manner. 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.

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 my 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 temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. Body temperature may rise to 41.1 degrees Celsius 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 by include the following:

- An extremely high body temperature (above 39.4 degrees Celsius)
- 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.