

Warm Weather Safety



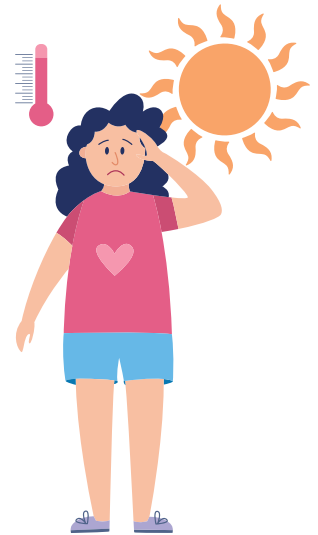
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Summer heat is often welcome in Canada after cold, snowy weather that occurs in winter. However too much heat can cause harm and we need to be aware of procedures to follow during a heat wave. Outdoor activities can lead to heat related illnesses such as heat cramps, heat rash, heat exhaustion and heat stroke.

It is important that adults know how to prevent heat illnesses and be able to provide aid when needed. When educators take students outdoors in warm weather, they should be aware of the signs and symptoms of heat related illnesses.

Types of Heat Illnesses

- Heat rash is a mild skin irritation caused by heavy sweating.
- Heat cramps are painful, involuntary muscle spasms that usually occur during heavy exercise in hot environments. Fluid and electrolyte loss often contribute to heat cramps.
- Heat exhaustion is a condition that may include heavy sweating and a rapid pulse which is a result of your body overheating. The body loses salt and fluid through heavy sweating.
- Heat stroke usually occurs in high heat and humidity conditions but may also occur in mild temperatures if the humidity is high. Sweat cannot evaporate as quickly as usual so the body cannot release heat to cool. Body temperatures can rise to dangerous levels (41°C) in approximately 10 minutes.



Symptoms of the Different Types of Heat Illnesses

Heat Stroke

- Temperature of 41°C or greater
- Severe headache
- Nausea
- Seizures
- Hot, dry skin
- Confusion
- Dizziness or fainting
- Rapid pulse
- Lack of sweating
- Loss of consciousness

Heat Exhaustion

- Heavy sweating
- Muscle cramps
- Moist skin
- Headache
- Nausea
- Dizziness
- Fainting
- Weakness
- Weak pulse
- Thirst

Heat Cramps

- Muscle pain or spasm occurring in the legs, arms, or abdomen

Heat Rash

- Small blisters on the skin on the upper chest, neck or inside the elbow

Heat stroke is the most serious form of heat illness and can cause blood disorders and damage to the heart, liver, kidney, muscles, and nervous system. Heat stroke can lead to death if the person does not receive emergency medical treatment. Call 911 immediately if any heat stroke symptoms are present.

Treatment for Heat Illness

Heat Exhaustion	Heat Stroke
<ul style="list-style-type: none"> Remove from heat. Loosen tight clothing. Do not dry skin. 	<ul style="list-style-type: none"> Remove from heat. Call 911 immediately. Loosen tight clothing. Do not dry skin.
Active Cooling	Aggressive Cooling
<ul style="list-style-type: none"> Pour water on torso. Fan skin. If person is alert, provide cool drink. 	<ul style="list-style-type: none"> Immerse body in cool water. Immerse forearms in cool water. Pour water on torso. Fan skin. If person is alert, provide cool drink.

Preventing Heat Related Emergencies

- Drink plenty of cool fluids. Drink water every 15 minutes when working or exercising in a hot environment.
- Avoid being outside during the hottest part of the day.
- Know the humidex rating – it combines the temperature and humidity and is an indication of how the hot, humid weather feels to the average person.
- Wear light clothing and keep the head covered.
- Apply sunscreen (SPF 15 or greater).
- Slow down activities as the day gets hotter and take frequent breaks in a cool or shady area.
- Never leave children or pets in a vehicle as the inside temperature in summer can quickly rise to 49° or higher.

Heat and Humidity

Humidity is the amount of water vapour in the air. High humidity makes people feel hotter than they would on a drier day as the perspiration that cools down a body cannot evaporate as quickly in moist, saturated air. Relative humidity tells how much water vapour is in the air, compared to how much it could hold at that temperature. It is shown as a percent so that a relative humidity of 50%

means that the air is holding one half of the water vapour it can contain at that temperature.

Humidex

The Humidex (humidity index) is an index number used by Canadian meteorologists to describe how hot the weather feels to the average person. The Humidex combines the temperature and humidity into one number to reflect the perceived temperature. It is a better measure of how stifling the air feels than either temperature or humidity alone.

Humidex Range

20-29	Little Discomfort
30-39	Some Discomfort
40-45	Great discomfort; avoid exertion
Above 45	Dangerous; heat stroke possible

An extremely high Humidex reading is any reading over 40. In such conditions, it is necessary to reduce all unnecessary physical activity.

Humidex Temperature and Relative Humidity

Relative humidity % Temp °C	100%	95%	90%	85%	80%	75%	70%	65%
21°C	29	29	28	27	27	26	26	24
22°C	31	29	29	28	28	27	26	26
23°C	33	32	32	31	30	29	28	27
24°C	35	34	33	33	32	31	30	29
25°C	37	36	35	34	33	33	32	31
26°C	39	38	37	36	35	34	33	32
27°C	41	40	39	38	37	36	35	34
28°C	43	42	41	41	39	38	37	36
29°C	46	45	44	43	42	41	39	38
30°C	48	47	46	44	43	42	41	40
31°C	50	49	48	46	45	44	43	41
32°C	52	51	50	49	47	46	45	43

Additional information on Humidex and how to use the Humidex Calculators can be found at Environment Canada. (weather.gc.ca)