

# Precautions for avoiding heat stress



- Make sure everyone on site is aware of the symptoms of heat-related illnesses and knows how to treat them. (Post IHSA's *The Hazards of Heat Stress* poster on site.)
- Wear light, loose clothing that allows sweat to evaporate.
- Wear light-coloured clothing because it absorbs less heat from the sun.
- Take more rest breaks and find a shaded place to cool down.
- Avoid alcohol and caffeinated drinks such as coffee, tea, or cola that make you urinate frequently.
- Avoid eating hot, heavy food. It can raise your body temperature by redirecting blood to your digestive system.
- Drink one cup of cool water (8 ounces) every 20 minutes, even if you're not thirsty.



Remember that your physical condition can increase your risk of developing a heat-related illness. Age, weight, fitness level, health conditions (heart disease or high blood pressure), recent illnesses, previous heat-related illnesses, or medications can all reduce your ability to deal with the heat. Talk to your doctor if you have any of these conditions and have to work in the heat.

## Heat Stress

**Symptoms of heat stress should never be ignored.** They are your body's way of telling you that something needs to be done to balance your body's heating and cooling system.

For more information on heat stress, refer to IHSA's *Construction Health and Safety Manual* (M029) or visit the Heat Stress topic page at [ihsa.ca/topics\\_hazards](http://ihsa.ca/topics_hazards) or [labour.gov.on.ca](http://labour.gov.on.ca)

*This pamphlet is one of a series developed by the Roofer Trade Labour-Management Health and Safety Committee.*

Find out what we can do for you at [ihsa.ca](http://ihsa.ca)



5110 Creekbank Road, Suite 400  
Mississauga, Ontario  
L4W 0A1 Canada  
Tel: 1-800-263-5024  
Fax: 905-625-8998

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# Heat Stress Prevention for Roofers

Heat stress can occur wherever work operations involve heavy physical labour in hot, humid environments. With little protection from the sun, roofers are at increased risk of heat stress. Working on dark roof surfaces and using equipment such as hot-tar kettles and propane torches to apply roofing materials can add to the risk.

This brochure helps roofers learn about heat stress, recognize the symptoms, and control the hazards.

## Heat stress

The human body functions best within a surprisingly narrow range of temperatures: 36°C to 38°C (96.8° F to 100.4°F). When you do heavy work in a hot environment—indoors or outdoors—your core body temperature rises.

To get rid of this excess heat, your body uses two cooling mechanisms:

1. Heart rate increases to move blood—and heat—away from your internal organs and toward your skin.
2. Sweating increases to help cool your skin, blood, and body through evaporation.

When you become dehydrated, your body's cooling system can't get rid of the heat, and your temperature rises above 38°C (100.4°F). This can lead to a heat-related illness such as

- **Heat rash** (due to plugged sweat glands)
- **Heat cramps** (due to loss of salt caused by sweating)
- **Heat exhaustion**
- **Heat stroke.**

## Heat exhaustion

Heat exhaustion occurs when your body cannot keep blood flowing both to vital organs and to the skin for cooling.

### Symptoms

- weakness, feeling faint
- headache
- breathlessness
- nausea or vomiting
- difficulty continuing work

### Treatment

Get medical aid and cool down (move to a shaded spot, loosen your clothing, and drink cool water). It takes at least 30 minutes to cool the body down after heat exhaustion. Without prompt treatment, heat exhaustion can lead to heat stroke.



## Heat stroke

**Heat stroke is a medical emergency.** You can die from it. Your body has used up all its water and salt and cannot cool itself. Your temperature rises to dangerous levels. Heat stroke is also called sunstroke.

### Symptoms

- confusion and irrational behaviour
- convulsions
- loss of consciousness
- no sweating—hot, dry skin
- abnormally high body temperature—40°C (104°F) or more

### Treatment

If a co-worker shows symptoms of heat stroke, you should act fast.

- Call the local emergency number or get the worker to a hospital.
- Take aggressive steps to cool the worker down by:
  - ✓ immersing in a tub of cool water
  - ✓ placing in a cool shower
  - ✓ spraying with a hose
  - ✓ wrapping in cool, wet sheets and fanning rapidly.
- If the worker is unconscious, don't give anything to drink.

