

# Working in summer heat requires taking extra precautions

By Colleen Hill  
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The body is very sensitive to temperature changes. A rise in temperature of only a couple of degrees Celsius may cause ill effects.

Working outside in hot and humid summer weather or working in a hot building can cause heat stress.

Heat stress occurs when the body overheats and is unable to effectively cool itself down.

Heat is generated by muscles during work. Working in hot conditions does not always allow the body to cool down.

The body copes with an elevation in body temperature by releasing heat to the environment. This is done by the body increasing the blood flow to the skin, which allows perspiration to occur.

If the environment is cooler or there is a breeze, the perspiration will evaporate, which pulls heat away from the body. A body effectively cooling itself will have skin that is moist from perspiration and pink or red from the increased flow of blood.

There are four key elements to preventing heat stress: water, acclimatization, rest breaks and monitoring.

Anyone who will be out in the sun for long periods needs to have plenty of clean, cool water available to drink and they need to stop to take a drink regularly.

Acclimatization means getting used to working in the heat gradually. This is usually achieved in about seven days.

A person becomes unacclimatized when out of the heat in about seven days as well. So, if a worker goes on vacation, he or she will have to re-acclimatize themselves when returning to hot working conditions.

It is important for workers to take breaks in the shade or in an air-conditioned building regularly during the day.

Workers should drink about eight ounces of fluid every hour. Dehydration has already begun when one feels thirsty.

It is equally important to watch the temperature and workers to ensure there are no ill effects. If either the temperature climbs very high or workers seem to be having difficulty, action needs to be taken immediately.

Workers should take a break. If

anyone seems dizzy or unusually tired, loosen or remove their clothing and give them cool water to drink.

Early signs and symptoms are feeling tired, having a headache, experiencing dizziness, feeling faint or having difficulty concentrating.

Mild symptoms include swelling of the hands or feet, heat rash and muscle cramps.

More serious symptoms include fainting, heat exhaustion and — the most serious effect — heat stroke.

Early and mild symptoms can usually be controlled within an hour of removing the worker from the heat to a cool, shaded area, providing fluids to drink and allowing the worker to rest.

If after one hour the symptoms persist, medical attention should be obtained.

The more serious symptoms require immediate medical attention. Emergency services should be contacted for transport to a medical facility.

As well, more aggressive treatment of the condition should be initiated while waiting for the emergency response team. This may include the above treatments as well as bathing the worker in cool water.

It is not advisable to provide fluids to a worker who has fainted or is in heat stroke as it could cause vomiting or choking to occur.

Workers should be taught the signs, symptoms and treatment of heat stress so they can look after themselves if working alone and look out for their co-workers when working in a group.

Workers who health concerns should seek the advice of their doctor prior to working in hot conditions.

Another important issue to consider when working outside is to wear sunscreen with at least an SPF of 15.

Hats should also be worn to provide shade.

Working in hot conditions is possible and safe providing care and caution are exercised.

• **Colleen Hill is a registered nurse with the Occupational Health Clinic (Sudbury). If you have an occupational health topic you would like addressed in a future column, contact the Occupational Health Clinics for Ontario Workers Inc. in Sudbury at 523-2330.**