

SHOW YOUR WORKFORCE

Warn Workers about Heat Stress Dangers

Heat illness is dangerous. But it doesn't strike without warning. On the contrary, there are signs and symptoms associated with each of the various forms of heat illness — heat cramps, heat exhaustion and, most dangerous of all, heat stroke (we'll refer to these illnesses collectively as "heat stress"). The problem is that supervisors and workers aren't always attuned to these signs. As a result, they lose the chance to help themselves or their co-workers. Or, they actually do something to make the situation worse — like drink a couple of cans of beer when they're feeling fatigued and overheated.

That's why it's essential to educate any of your workers and supervisors who work in hot conditions about the dangers of heat stress. A vital part of this education is to familiarize them with the signs and symptoms of the different forms of heat illness and how to react if those signs and symptoms appear. Such education isn't just required by law; it can be the difference between life and death.

Chronicle of a Preventable Death

This is not hyperbole. Here's an example how a company's failure to provide education about heat stress directly contributed to a worker's tragic death. The story starts in Newfoundland in the spring of 1992. Anthony Dalton and Ronald Morrissey are trained boilermakers and good friends. They decide to take a job in New Brunswick repairing pipes in a paper mill. Here's a chronicle of what came next:

May 20, 1992: Dalton and Morrissey report for their first day of work. The temperatures outside are high for May—22° C and 35% humidity. It's even hotter in the mill where chemicals are heated in enclosed spaces—especially on the scaffolds where Dalton and Morrissey are working. Nobody tells them anything about the dangers of heat stress. Later, the contractor will testify that he assumed that trained boilermakers would know all about heat stress. It turns out to be a tragically flawed assumption.

Dalton and Morrissey work all day in the heat. Dalton starts experiencing fatigue. It's the first warning of danger. But since neither man knows anything about the signs of heat stress, it goes unrecognized.

May 21, 1992: The outdoor temperature has climbed to 28.5° C. Humidity is at 33%. The heat and hard work in the mill continue. Dalton and Morrissey work the entire day. Dalton is getting worse. When the two get back to their motel after work, Dalton starts experiencing muscle cramps. He's exhausted. He passes out on the bathroom floor of the motel room. He drinks a beer, not realizing that the last thing somebody in his condition should do is drink alcohol.

May 22, 1992: It's even hotter today—30.5° C. Dalton is still exhausted but decides to drag himself to work. He spends the morning inside one of the tanks helping to build a scaffold. He's in big trouble. After afternoon break, he tells the supervisor that he's just too exhausted to go back to work. He sits on the floor with his back against the base of a column. When the shift ends, he can barely stand up. He's incoherent. He stumbles about 100 metres and finally collapses. Even now, nobody knows what's wrong. The ambulance takes Dalton to the hospital. But it's too late. Dalton dies of heat stroke the next day.

The Moral

Perhaps the saddest part of the death of Anthony Dalton is that it could have been prevented. There was ample warning: Dalton's fatigue, the cramps, his passing out on the bathroom floor, etc. Anybody attuned to the signs of heat stress would have recognized what was going on and acted while there was still time. Tragically, because none of the workers or supervisors with whom Dalton worked had received any education on heat stress, every opportunity to save him was missed.

DON'T LET SOMETHING LIKE THIS HAPPEN AT YOUR WORKPLACE!

Make sure you tell the people who work for you how to spot and treat the signs and symptoms of heat stress. Getting this information is fairly easy. Many of the provinces, including AB, BC, MB, ON, QC and SK (and the federal jurisdiction), provide the information in their heat stress guidelines. And, since the symptoms and accepted forms of treatment for heat stress don't change from province to province, you can use guidelines from another province even if your province doesn't set out such information. Easier still, you can photocopy and distribute the handout on the next page.

Photocopy this notice, post it at your workplace or give it to your workers

HEAT STRESS

HEAT CRAMPS, EXHAUSTION, STROKE – HOW TO RECOGNIZE IT & WHAT TO DO

THE HEAT EQUATION

HIGH TEMPERATURE + HIGH HUMIDITY + PHYSICAL ACTIVITY = HEAT ILLNESS

When the body gains heat faster than it can get rid of it, serious and potentially fatal heat illnesses may occur.

HEAT CRAMPS

DESCRIPTION:

Painful muscle spasms caused by loss of salt from excessive sweating

SYMPTOMS:

Muscular pain and excessive sweating

WHAT TO DO:

- ✦ Get victim to rest in a cool place.
- ✦ Give victim cool drinks sprinkled with salt and salty foods, but not salt tablets.
- ✦ Remove wet or tight clothing that may restrict flow of blood to affected area.
- ✦ Rest alone isn't enough. If cramps continue, seek medical help.

HEAT EXHAUSTION

DESCRIPTION:

A more advanced and serious stage of heat stress

SYMPTOMS:

- ✦ General fatigue, weakness and poor muscle control
- ✦ Dizziness, fainting
- ✦ Pale, cool, clammy skin
- ✦ Cramps
- ✦ Headache, nausea
- ✦ Heavy sweating
- ✦ Rapid pulse, shallow breathing

WHAT TO DO:

- ✦ Heat exhaustion is life-threatening. Get medical help at once.
- ✦ Check victim's airway and breathing. Give CPR, if needed.
- ✦ Move victim to cool area.
- ✦ Loosen or remove outer clothing.
- ✦ Cool victim with sponge or spray, covering with cold wet cloths, placing ice packs under armpits and groin, and fanning.
- ✦ If victim is conscious, give him cool drinks with salt sprinkled in and salty foods, but not salt tablets.

HEAT STROKE

DESCRIPTION:

A condition in which the body's temperature rises above 41°C and which, if not treated immediately, may result in coma, brain damage or death

SYMPTOMS:

- ✦ Hot, dry flushed skin, usually with no sweating
- ✦ Agitation and confusion
- ✦ Headache, nausea and vomiting
- ✦ Possible seizure and loss of consciousness
- ✦ Possible shock and cardiac arrest
- ✦ Irregular pulse
- ✦ Rapid, shallow breathing

WHAT TO DO:

- ✦ Heat stroke is a medical emergency. Get medical help at once.
- ✦ Check victim's airway and breathing. Give CPR, if needed.
- ✦ Move victim to cool area.
- ✦ Loosen or remove outer clothing.
- ✦ Cool victim with sponge or spray, covering with cold wet cloths, placing ice packs under armpits and groin, and fanning
- ✦ If victim is conscious, give him cool drinks with salt sprinkled in and salty foods but not salt tablets

PROTECT YOURSELF AGAINST HEAT STRESS

- ✦ Learn to recognize the symptoms of heat stress and how to treat them.
- ✦ Understand that you're at particular risk if you're overweight, out of shape, over 40 years of age, have pre-existing medical conditions, use medication that block sweating, abuse drugs or alcohol or have had heat stress before.
- ✦ Try to do the most physically demanding jobs during the coolest part of the day.
- ✦ On hot days, drink about two glasses (1/2 litre) of water before starting work and one glass every 20 minutes while working.
- ✦ Wear loose clothes made of cotton, silk and other fabrics that let air pass through. If working outside, wear lighter colors that reflect rather than absorb heat.
- ✦ Wear temperature-controlled and/or anti-radiant heat or reflective clothing if instructed.
- ✦ Take frequent breaks in a cool spot.