

Safety Alert

December 2015



Heat Stress Prevention

A serious incident took place yesterday involving a young South Australian construction worker who collapsed at their worksite due to suspected heat stroke and is now reported to be in a critical health condition.

This Safety Alert reminds all workers of the serious risks to their health and wellbeing particularly when working in heat without taking necessary precautions.

High temperatures and humidity stress the body's ability to cool it, and heat illness becomes a special concern during hot weather. There are three major forms of heat illness:

- Heat cramps;
- Heat exhaustion; and
- Heat stroke (heat stroke being a life threatening condition).

Heat Cramps

Heat cramps are muscle spasms that usually affect the arms, legs, or stomach. Frequently they don't occur until sometime later after work, at night, or when relaxing. Heat cramps are caused by heavy sweating, especially when water is replaced by drinking, but not salt or potassium. Although heat cramps can be quite painful, they usually don't result in permanent damage. To prevent them, drink electrolyte solutions such as Gatorade during the day and try eating more fruits like bananas.

Heat Exhaustion

Heat exhaustion is more serious than heat cramps. It occurs when the body's internal air-conditioning system is overworked, but hasn't completely shut down. In heat exhaustion, the surface blood vessels and capillaries that originally enlarged to cool the blood collapse from the loss of body fluids and necessary minerals. This happens when you don't drink enough fluids to replace what you're sweating away.

The symptoms of heat exhaustion include: headache, heavy sweating, intense thirst, dizziness, fatigue, loss of coordination, nausea, impaired judgement, and loss of appetite, hyperventilation, tingling in hands or feet, anxiety, cool moist skin, weak and rapid pulse, and low to normal blood pressure.

Somebody suffering these symptoms should be moved to a cool location such as a shaded area or air-conditioned building. Have them lie down with their feet slightly elevated. Loosen their clothing, apply cool, wet cloths or fan them. Have them drink water or electrolyte drinks. Try to cool them down, and have them checked by medical personnel. Victims of heat exhaustion should avoid strenuous activity for at least a day, and they should continue to drink water or replace lost

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body fluids.

Heat Stroke

Heat stroke is a life threatening illness with a high death rate. It occurs when the body has depleted its supply of water and salt, and the victim's body temperature rises to deadly levels. A heat stroke victim may first suffer heat cramps and/or the heat exhaustion before progressing into the heat stroke stage, but this is not always the case. It should be noted that, on the job, heat stroke is sometimes mistaken for heart attack. It is therefore very important to be able to recognise the signs and symptoms of heat stroke- and to check for them anytime an employee collapses while working in a hot environment.

The early symptoms of heat stroke include a high body temperature; a distinct absence of sweating (usually); hot red or flushed dry skin; rapid pulse; difficulty breathing; constricted pupils; any/all the signs or symptoms of heat exhaustion such as dizziness, headache, nausea, vomiting or confusion, but more severe; bizarre behaviours; and high blood pressure. Advance symptoms may be seizure or convulsions, collapse and loss of consciousness.

It is vital to lower a heat stroke victim's body temperature. Seconds count. Pour water on them, fan them, or apply cold packs. Call 000 and get an ambulance on the way as soon as possible.

Anyone can suffer a heat illness, but by taking a few simple precautions, they can be prevented:

- Condition yourself for working in hot environments- start slowly then build up to more physical work. Allow your body to adjust over a few days.
- Drink lots of liquids. Don't wait until your thirsty, by then, there's a good chance your already on your way to being dehydrated. Electrolyte drinks are good for replacing both waters and minerals lost through sweating. Never drink alcohol, and avoid caffeinated beverages like coffee and fizzy drinks.
- Take a break if you notice you're getting a headache or you start feeling overheated. Cool off for a few minutes before going back to work.
- Wear light weight, light coloured clothing when working out in the sun.
- Take advantage of fans and air-conditioners.
- Get enough sleep at night.

With a little caution and a Safety-First pro-active approach, you can avoid heat illnesses.

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