Heat Stress

The effects of heat stress range from simple discomfort to life-threatening illnesses such as heat stroke.

What causes heat stress? Heat stress may occur as the result of a heat wave or a constant source of heat at the workplace.

Six main factors are involved:
- temperature,
- humidity,
- movement of air,
- radiant temperature of surroundings,
- a person's clothing, and
- physical activity.

How does heat stress affect me?
Heat stress causes increased sweating, depleting the body's fluid and causing heat intolerance. This reduces work capacity and efficiency. Other signs of heat stress include tiredness, irritability, inattention and muscular cramps. These factors all increase the risk of you having an accident.

Are some people more prone to heat stress?
People who are medically unfit, overweight, suffer from heart disease, abuse alcohol or are not acclimatized, are at a greater risk of heat stress and should heed medical advice. Some people are less tolerant of heat than others. Care should be taken to have a safe system of work that does not endanger or penalize these people.

Factors to consider to control heat stress
Inside –
- Insulation of roof, walls or other sources of heat;
- Ducting hot exhaust to the outside;
- Providing fans, ventilation or air-conditioning.

Outside –
- Air-conditioned vehicles and rest areas;
- Provision of suitable protective clothing;
- Sunscreen creams and adequate instructions.

Make the Job Safe – Talk about safety and health at work. If you believe there are problems in this area you should discuss them with your employer and your safety and health representative.

How can I avoid heat stress?
By a few simple principles:
- Reduce the heat load by replacing fluid loss (drink more water, juices and other non-alcoholic drinks). Drinks of water at frequent intervals will be adequate to reduce fluid loss in sweating;
- Have rest pauses in a cool place;

Our safety evaluations, reports and recommendations are made solely to assist your organization in reducing hazards and the potential of hazards and accidents. These recommendations were developed from conditions observed and information provided at the time of our visit. They do not attempt to identify every possible loss potential, hazard or risk, nor do they guarantee that workplace accidents will be prevented. These safety evaluations, reports and recommendations are not a substitute for ongoing, well-researched internal safety and risk management programs. This report does not warrant that the property inspected and its operations are compliant with any law, rule or regulation.
• Help your sweat evaporate by increasing air circulation;
• Maintain a healthy lifestyle.

To relieve acute symptoms, such as painful muscular cramps, a solution of one tablespoon of common salt to four liters of water or one teaspoon of electrolyte replacement formula to one glass of water may be drunk. This provides a quick source of salt replacement.

**How should heat stress be treated?**
Have the patient rest in the coolest available place and drink cool but not cold fluids. Contact a doctor, nurse or first aid officer if the patient does not rapidly improve.

**Should I take salt tablets?**
The use of salt tablets is not recommended and should only be taken on the direct advice of a physician. Usually sufficient salt is absorbed from food eaten to provide replacement of all salt lost in sweating. However, in cases of extreme sweating, extra salt may be added to food, during cooking or eating.

**Heat Stroke**

**What are the signs of heat stroke?**
Heat stroke is a very serious condition. It is less common than heat stress, but can be life threatening. A person will stop sweating, body temperatures will be high (oral temperatures 40-43 degrees C), skin will be hot and dry. Confusion and loss of consciousness may occur.

**How should heat stroke be treated?**
The person should be treated by a doctor as a matter of urgency. Until medical aid is available, cool the person down as quickly as possible, such as by soaking the person's clothing in cold water, giving cool fluids if the person is conscious, and increasing air movement by fanning.