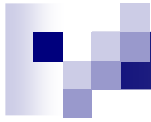




# Heat Stress Awareness

- This presentation is designed to give a general understanding of the hazards associated with “Heat Stress”.
- This presentation is a company training awareness toolbox and is applicable to all employees, it is designed to give all employees an understanding of the need for protection and awareness associated when working in the heat.
- Please be advised that specific procedures surrounding heat stress prevention measures may be applicable at client sites that you work on and these should be followed whilst working on those sites.





## What Is Heat Stress?

- Heat stress is a potentially dangerous condition that occurs when the body is unable to regulate its temperature. It is the loss of body fluid, caused by an increase in body temperature, during periods of extreme hot weather or during strenuous activity.
- As the body tries to cool itself, normal bodily functions maybe affected resulting in severe medical complications and illness.
- Individuals vary widely in their ability to tolerate heat. You need to have some awareness of the risk factors to judge your tolerance to heat levels.



## Factors:

- Factors which may increase the risk of Heat Stress include:
  - A pre existing medical condition such a diabetes or heart problems;
  - Being dehydrated
  - Drug abuse including alcohol consumption.
  - Medications
  - Poor physical fitness
  - Obesity
  - Fever
  - Infection
  - Diet
  - Risk increased with age (40-45 and older) or the very young.



# Heat Cramps

- Painful sometimes severe cramps of larger muscles that have been used during work, e.g. the arms, legs back or abdomen
- Cause:
  - Heavy prolonged sweating
  - Electrolyte imbalance
- Symptoms
  - Muscle cramps, characteristically at the end of the working day
  - Nausea and/or vomiting
  - Tiredness
  - Dizziness
  - Weakness
  - Moist cool skin
  - May faint



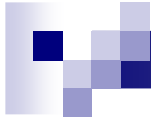
# Heat Exhaustion

- The body's heat control mechanism goes overactive.
- Cause:
  - Surface blood vessels collapse from loss of body fluids and minerals, and are unable to enlarge to cool the body.
- Symptoms
  - Headache
  - Weakness
  - Thirst
  - Fatigue
  - Nausea
  - Stomach and muscle cramps
  - Shortness of breath
  - Profuse sweating
  - Lack of coordination
  - Pale, cool, clammy skin
  - Rapid pulse, possible confusion or irritability.



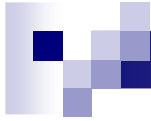
# Heat Stroke

- Heat stroke is a very serious condition since death or permanent injury to brain or kidneys can result.
- Cause:
  - Storage of heat in the body when it is unable to dispose of excess heat
- Symptoms
  - Headache
  - Dizziness, visual disturbances
  - Aggression
  - Seizures
  - Nausea/vomiting
  - Loss of consciousness
  - Temperature of 40°C or greater
  - Strong pounding pulse
  - Hot, dry, flushed skin
  - Cardiac arrest



# Treatment Of Heat Stress

- If anyone is severely ill from Heat Stress, e.g. unconscious or fainting you must follow the first aid DRABCD action plan (if you are qualified to do so,) attempt to cool the victim immediately, and seek urgent medical assistance.
  
- Basic treatment for all heat illnesses:
  - Find a cool place
  - Sit or lie down
  - Give fluids by mouth (unless unconscious) – water is best
  - Electrolyte replacement in small quantities as per directions
  - Loosen tight clothing



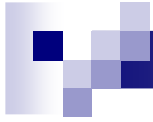
## Treatment Of Heat Stress Cont.

- Gently stretch muscles
- Cool body down with, a fan, water spray, cool shower, cloth soaked in iced water to armpits, groin, neck and face.
- Choose any of these methods depending on severity and resources available to you
- Seek medical advice if symptoms are severe, or if vomiting.
- Inform your supervisor.



## Prevent Heat Stress

- Drink at least 500 – 1,000ml of cool water per working hour when working in high heat environments
- Wear loose fitting full length porous clothing (avoid synthetics)
- Wear a broad brimmed hat ( attachments available to fit standard hard hats)
- Try to do the hot jobs in the cooler part of the day
- Drink even if your not thirsty
- Be on the alert for signs of dehydration other than thirst, such as decreased urine output, and dark or concentrated urine.
- Do not drink alcohol or soft drinks to replace fluids.
  
- Take regular rest breaks during hot periods.
- Look out for any signs of heat stress in your fellow workers.



# Prevent Heat Stress

**REMEMBER ONCE YOU'RE THIRSTY YOU'RE ALREADY**

**DEHYDRATED**