

 GOVERNMENT OF DUBAI	Organization Unit Public Health & Safety Department	الوحدة التنظيمية:	 بلدية دبي DUBAI MUNICIPALITY
	Form sheet title: Guidelines for Heat Stress at Work	اسم النموذج:	
	Doc Ref. DM-PH&SD-P4-TG03	رقم النموذج:	

Heat Stress at Work

Background: Heat stress is a significant occupational problems in this region. Heat stress in dependent on the work place conditions and the physical activity being undertaken by the person. High temperature, high thermal radiation, high humidity, low air movement, high activity levels in the work place and the need to wear personal protective clothing, all combine to elevate the body temperature, resulting in heat cramps, heat exhaustion or heat stroke. The same degree of exposure may produce different effects depending upon the susceptibility of the person exposed. Dubai Occupational Health and Safety regulations Local Order 61 of 1991 requires the employer to ensure safe working conditions in the workplace.

Guidelines:

1. Continued exposure to high temperature and humidity or to the hot sun is the common cause of heat cramps, heat exhaustion and heat stroke. Supervisors must look for early signs of heat stress, relieve workers and provide appropriate treatment.

2. Heat Cramps:

Heat cramps are least serious form of heat stress caused by sweating, resulting in loss of water and minerals from the body. This imbalance may cause muscles to cramp.

2.1. Signs and Symptoms:

- Excessive sweating
- Muscular pains and spasms
- Mild dizziness or weakness
- Inflamed or red bumps on skin and a rash.

2.2. Treatment:

- Rest in a cool or shady area
- Drink water or other fluids
- Use warm, moist compresses over cramping muscles.

3. Heat exhaustion:

Heat exhaustion is caused by excessive perspiring because of a hot work conditions or strenuous physical exertion. The loss of water and minerals

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reduces the blood supply to major organs such as brain, muscles and skin. This causes strain on cardio-vascular system.

3.1. Signs and symptoms:

- A person suffering from heat exhaustion may collapse.
- Excessive sweating
- Cold, moist, pale skin
- Thirst
- Extreme weakness or fatigue
- Headache
- Nausea
- Dizziness or giddiness

3.2. Treatment:

- Rest in a cool or shady area
- Drink water or other fluids
- Take additional salt if advised.
- Use cool compresses on forehead, around the neck
- Seek medical attention

4- Heat Stroke:

Heat stroke is more serious than heat exhaustion or cramps and is a life threatening medical emergency. Since blood flow and sweat cannot cool the body enough, it becomes overheated affecting vital organs including heart and brain.

4.1. Signs and Symptoms:

A person affected by heat stroke may have:

- Lack of sweating
- Hot, dry, flushed skin
- Deep, rapid breathing
- A rapid, weak and possibly irregular pulse
- Headache, nausea
- Dizziness, confusion
- Loss of consciousness
- Convulsions

4.2. Treatment:

- Get medical treatment
- Rest in a cool or shady area
- Remove outer clothing

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- Lower body temperature immediately with cool compresses, increasing air movement, preferably both.
- Give water or other fluids if conscious

5- Preventing Heat Stress:

- 5.1. Know which factors increase the risk of heat stress control the work area.
- 5.2. Increase water consumption to replenish the water lost from sweating
- 5.3. Provide/take rest breaks depending upon conditions such as air temperature, sun exposure, radiating heat exposure and hard physical work.
- 5.4. An employer shall provide heat protective clothing and equipment, when possible, loose lightweight clothing which encourages heat to be released and covers most areas of the body.
- 5.5. An employer shall plan work schedules to help the employees to adapt to the heat for better acclimatization.
- 5.6. An employer shall not require/allow an employee who is physically unfit to work in hot conditions.
- 5.7. An employer shall ensure adequate cool drinking water is available at each workplace. Sweet drinks such as canned soft drink should not be provided as these increase fluid loss.
- 5.8. An employer shall ensure adequate medical facilities are made available in case of medical emergencies due to heat stress.

Further Information is Available From:
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