



Company Name: _____ Job Site Location: _____

Date: _____ Start Time: _____ Finish Time: _____ Foreman/Supervisor: _____

Topic 92: Hyperthermia (Part A)

Introduction: Many jobs, both outdoors and indoors, require working in hot environments. Working in the heat and doing heavy physical work can affect the body's cooling system. When the body is unable to cool itself, a worker can experience heat stress. When heat stress is not recognized and treated in the early stages, more serious and even fatal conditions may quickly develop. Following are safety guidelines for dealing with hyperthermia:

- **Workers** must be trained to prevent heat stress and to recognize the early symptoms of heat stress in themselves and co-workers.
- **Heat stress** can result in skin rashes, light-headedness, convulsions, and unconsciousness. Early symptoms of heat stress, such as irritability, fainting, lack of coordination, and lack of judgment, can result in serious accidents. All symptoms need to be treated promptly.
- **Heat disorders** occur when heavy physical work is done in hot, humid environments and when the body consequently loses too much fluid and salt.
- **Cases** of heat stress have been reported when the air temperature was relatively low, but the physical activity level of work was very high.

Heat rash: People working in hot, humid conditions may develop a rash that is accompanied by intense itching spasms and prickly sensations. Heat rashes are most likely to occur in areas where clothing traps hot, humid air next to the skin.

- **Avoid** repeated exposure to heat. Change all clothing often when sweating is profuse. Always wear clean, starch-free, loose-fitting clothing.
- **Leave** the hot environment, preferably until the rash has healed. Keep the affected areas clean, cool, and dry as much as possible.

Heat stress: If the body gains heat faster than it removes heat, the body temperature rises and a person experiences heat stress.

- **Early signs** and symptoms include feeling unwell, headache, nausea, decreased efficiency, reduced co-ordination and alertness, increased irritability, light-headedness, dizziness, fainting, and swelling of hands, feet, and ankles (usually one to two days after first exposure).
- **Remove** the worker from the hot environment to rest in a cool place and to drink cool water. Have the worker rest with his or her legs and feet elevated. Have the worker assessed by the first aid attendant, if available, or by a physician. Keep the worker under observation until he is fully recovered from the effects of the heat. Change the work schedule, or reduce the work pace, before he returns to work.



Warning: Aspirin or non-steroidal anti-inflammatory drugs should not be given to workers to relieve symptoms of heat stress.

Heat cramps: Heat cramps are painful muscle cramps caused by losing too much salt through sweating.

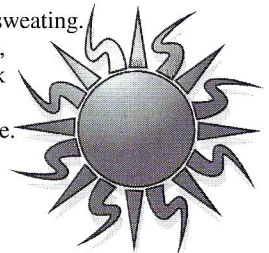
- **Place** the worker at rest in a cool place and notify the first aid attendant, when available. Give the worker cool drinks sprinkled with salt and salty tasting foods. Salt tablets are not recommended. Rest alone is not sufficient — heat cramps often occur in the resting state after a work shift.
- **Heat cramps** are cured only after the lost salt has been replaced. More importantly, continued work under conditions of heat stress can lead to heat exhaustion, a more serious disorder. When a worker has cramps, along with other symptoms such as fatigue, weakness, headache, gastrointestinal illness, or changes in mental state, then the worker may already be suffering from heat exhaustion or heat stroke.

Heat exhaustion: Heat exhaustion is the next stage of heat stress.

Signs and symptoms include general weakness, tiredness, poor muscle control, dizziness and fainting, headache and nausea, pale, cool, and clammy skin, profuse sweating, rapid pulse, rapid shallow breathing and muscle cramps. Treatment should be the same as for heat stroke. Seek medical help at once.

Heat stroke: Heat stroke is a life-threatening condition in which the body's core temperature rises above 106°F. At core body temperatures over 106°F, sweating often stops. The body is unable get rid of heat and the body temperature may continue to rise. The person's mental functions may become disturbed. Without immediate first aid, heat stroke can result in a coma, permanent brain damage, or death.

- **Heat stroke** can come about suddenly and without warning with symptoms such as weakness, feeling faint, and profuse sweating.
- **Signs and symptoms** include hot, dry, flushed skin (usually with no sweating), agitation and confusion, headache, nausea, vomiting, rapid shallow breathing, irregular pulse, possible seizures, loss of consciousness, and possible shock and cardiac arrest. Heat stroke can occur quickly and without warning. People should not work alone.
- **Notify** the first aid attendant immediately. Attempt to cool the worker, and arrange for medical help as quickly as possible.
- **When** the worker is not breathing, or is unconscious, follow regular first aid procedures. Continue to cool the worker while waiting for medical help. Move the worker to the coolest area available. Loosen or remove outer clothing. Cool the worker by sponging, or spraying him with cool water, or by covering the worker with cold wet sheets. Increase cooling by fanning.
- **When** the worker is conscious, fully alert, and not nauseated, give the worker cool drinks sprinkled with salt and salty-tasting foods. Salt tablets are not recommended. Continuously monitor the worker closely and give life-saving first aid as needed.



Conclusion: All employees need to be trained in first aid for heart attacks/cardiac arrest. Never exceed your levels of First Aid, CPR, or AED training.

Work Site Review

Work-Site Hazards and Safety Suggestions: _____

Personnel Safety Violations: _____

Employee Signatures: _____ (My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)

These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.