

Heat Stress



Preparing for the heat..

- **The average person takes about 5-7 days to adjust to hot weather.**
- **On the first day of work in a hot environment the body temperature, pulse rate and general discomfort will be higher.**
- **As the days go on, the body will become acclimated to the temperature.**



Heat Illnesses..

- **Heat Cramps**
- **Heat Exhaustion**
- **Heatstroke**
- **Fainting**
- **Heat Rash**



Heat Cramps..

- **Heat Cramps are painful muscular spasms that happen suddenly and usually immediately after exertion**
- **Usually involves the muscles in the back of the leg (such as the calf or hamstring)**



Heat Cramps...

- **How to treat....**
 - **Rest in a cool place**
 - **Drink cool water and/or sports drink**
 - **Stretch the cramped muscle**



Heat Exhaustion ...

- **Heat exhaustion is characterized by heavy perspiration with normal or slightly above normal body temperatures**
- **It is caused by water and/or salt depletion**
- **Affects people that do not drink enough fluids while working or exercising in hot environments**



Heat Exhaustion...

- **Symptoms of Heat Exhaustion**
 - **Severe thirst**
 - **Fatigue**
 - **Headache**
 - **Nausea**
 - **Vomiting**
 - **Sometimes Diarrhea**
 - **Uncontrolled Heat Exhaustion can evolve into Heatstroke**



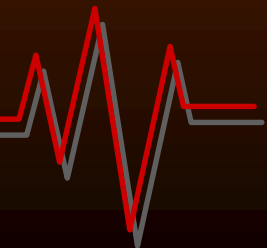
Heat Exhaustion...

- **How to treat Heat Exhaustion**
 - **Move the victim immediately out of the heat and to a cool place**
 - **Give cool liquids- cool water and/or sports drink**
 - **Raise the victims legs 8-12 inches**
 - **Remove excess clothing**
 - **Sponge victim's body with cool water and fan**
 - **If no improvement within 30 minutes- call EMS**



Heat Stroke...

- **Heatstroke is the most serious of health problems associated with working in hot environments**
- **Two types of Heatstroke exist-**
- **Classic Heatstroke- Also known as the “slow cooker”- may take days to develop**
 - **Often seen during summer heat waves and typically affects the elderly and sick.**
 - **Has a 50% death rate due to affecting the elderly**
 - **Results from a combination of a hot environment and dehydration**
 - **Sweating is absent**



Heatstroke...

- **Exertional Heatstroke**- also know as the “fast cooker”
 - More common in the summer and usually affects athletes and laborers
 - Rapid onset does not allow enough time for severe dehydration to occur
 - 50% of Exertional Heatstroke victims are sweating
 - Classic Heatstroke victims are not sweating



Heatstroke...

- **Signs and symptoms of Heatstroke**
 - **Victim's body feels hot when touched**
 - **Possibly not sweating**
 - **Altered mental status-
confusion/disorientation**
 - **Seizure and possible coma**
 - **Body temperature is usually 105 Deg.**



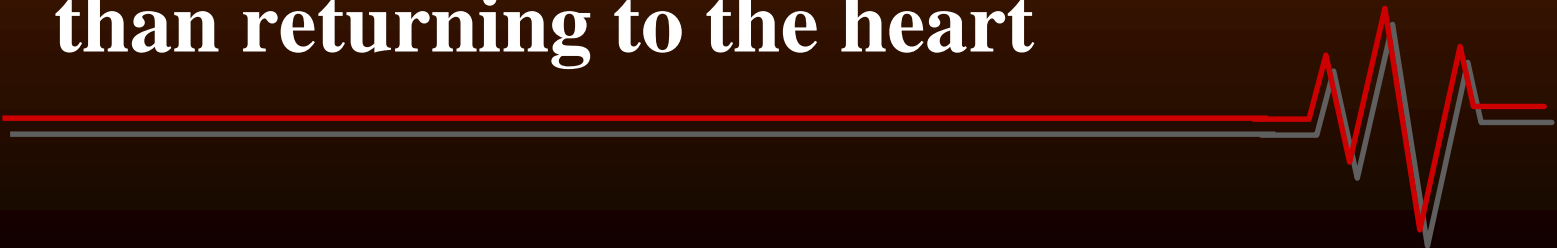
Heatstroke..

- **How to treat Heatstroke**
 - **Seek immediate medical attention-even if the victim seems to be re-covering**
 - **Move the victim immediately out of the heat**
 - **Remove clothing down to underwear**
 - **Keep the victim's head and shoulders slightly elevated**
 - **Cool the victim quickly by using cool water and ice packed around the neck, armpits, and groin**



Fainting..

- **A worker who is not accustomed to hot environments and who stands without moving in the heat may faint**
- **With enlarged blood vessels in the skin and in the lower part of the body due to the body's attempt to control internal temperature, blood may pool there rather than returning to the heart**



Fainting..

- **Upon lying down, the worker should soon recover**
- **By moving around, and thereby preventing blood from pooling, the victim can prevent further fainting**



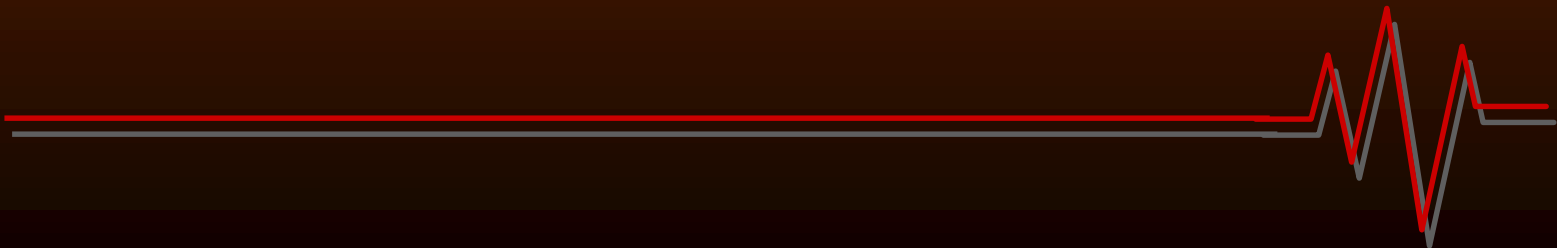
Heat Rash..

- **Heat rash, also known as prickly heat, is likely to occur in hot, humid environments where sweat is not easily removed from the surface of the skin by evaporation and the skin therefore stays wet most of the time**
- **The sweat ducts become plugged, and a skin rash soon appears**



Heat Rash..

- **When heat rash is extensive or when it is complicated by infection, it can be very uncomfortable**
- **The worker can prevent this condition by resting in a cool place and by regularly bathing and completely drying the skin**



Other...

- **Do not give a victim salt tablets- they can irritate the stomach and cause nausea and vomiting**



Other..

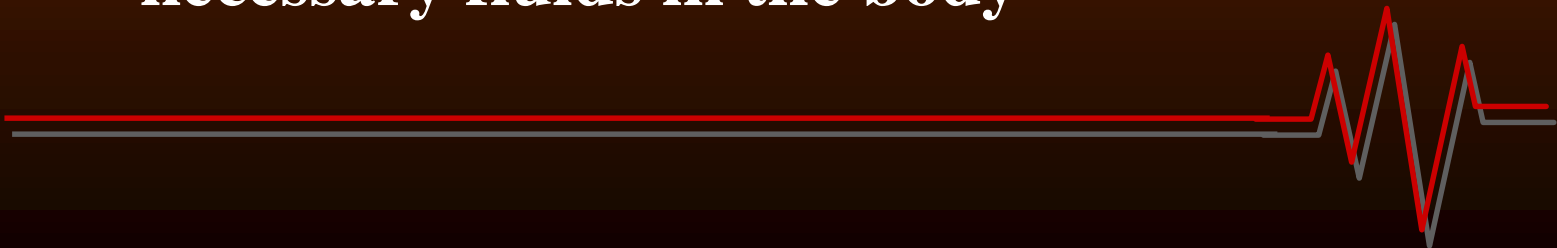
- **Drinking Water**

- **In the course of a day's work in the heat, the body may produce as much as 2-3 gallons of sweat**
- **Because so many heat disorders involve excessive dehydration of the body, it is essential that water intake during the workday be about equal to the amount of sweat produced**



Other

- **Drinking Water cont...**
 - **Most workers exposed to hot conditions drink less fluids than needed because of an insufficient thirst drive**
 - **You therefore should not depend on thirst to signal when and how much to drink**
 - **You should drink about 5-7 ounces of fluids every 15-20 minutes to replenish the necessary fluids in the body**



Other..

- **People with heart problems or those on low sodium diets who work in hot environments should consult their physician about what to do under these conditions.**



Questions: Yes or No

For Heat Cramps, stretch a cramped leg muscle

Yes

Salt tablets can be given to victims of any heat illness

No

Move heat illness victims out of the heat to a cool place

Yes



Questions: Yes or No

Heat Exhaustion victims need immediate medical attention- it's a life threatening situation **No**

Heat Stroke victims need immediate cooling by any means possible **Yes**

