Outdoor Safety

Heat Protection
Applicability

This presentation has been prepared for those who will work outdoors in the heat.
The human body works to maintain a core body temperature of about 98.6° F (± 1.8° F). The body has to deal with metabolic heat and heat gained from the environment.

Some factors affecting heat exchange with the environment:

- Air temperature
- Humidity
- Skin temperature
- Air velocity
- Sweating
- Radiant temperature
- Clothing
Protective Mechanism

The body dissipates heat by sweating.

Heat related disorders can develop when sweating is insufficient. Heat related disorders can include:

- Heat stroke
- Heat exhaustion
- Heat stress & rash

Healthy 98.6°F
Acute Heat Disorders

Some heat related disorders are more severe than others:

- Heat Stroke
- Heat Exhaustion & Cramps
- Heat Rash (& Other Problems)

A person will die once their core body temperature reaches about 109° F.
The most serious acute heat disorder, which **always requires medical attention**. Treat victims with first-aid while seeking medical help. Signs and symptoms of heat stroke include:

- Mental confusion
- Hot, dry skin (However the skin may be moist too.)
- Skin is typically red but may be mottled or pale blue-gray
- Possible loss of consciousness
- Breathing may be fast and deep
- Core body temperature is elevated

Seek medical attention ASAP if you suspect someone is suffering from heat stroke!
Heat Exhaustion & Cramps

Signs and symptoms include:

- Undue fatigue
- Headache
- Nausea
- Pale skin
- Feeling faint
- Cramps

Treatment

Have victim sit or lie down in cooler air, hydrate well, and observe them closely for signs & symptoms of heat stroke.
Heat Rash & Other Problems

Signs and symptoms include:

- Clogged sweat glands
- Discomfort
- Reduced ability to cool off

Treatment

Have victim sit or lie down in cooler air, hydrate well, and have them clean their skin.
Protection

Do the following to protect against acute heat disorders:

• Stay properly hydrated
• Wear proper clothing
• Replace electrolytes if sweating
• If needed, select and use proper medication
• Become acclimatized to the hot environment
About Acclimatization

A person who is acclimatized can deal with heat better than they would otherwise because the body alters the volume of blood flow and improves the ability to maintain arterial pressure.

Over a narrow range of environmental conditions, people generally in good health will acclimatize in about a week after working periodically in a hot environment. Acclimatization decreases quickly once one ceases working in the hot environment – almost all of it is gone in about a week.
Proper Clothing

Clothing should be designed to keep you cool and wick moisture away (helps remove heat from your body).

Don’t forget about UV protection.