

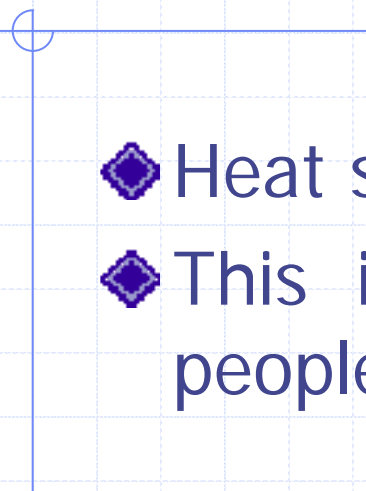


Heat Stress

MSS Safety

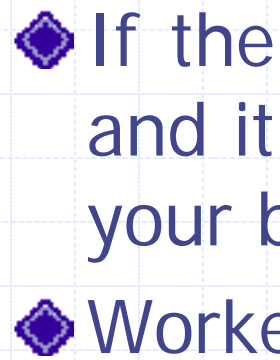
What Is Heat Stress?

- ◆ Working or playing where it is hot puts stress on our body's cooling system.
- ◆ When the heat is combined with other stresses such as hard physical work, loss of fluids, fatigue or some medical conditions, it may lead to heat-related illness, disability and even death.
- ◆ This can happen to anybody--even if you are young and fit.

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- ◆ Heat stress is usually a concern in the south.
 - ◆ This is especially true in Mississippi, when people are frequently exposed to high heat.

How We Cope With Heat

- ◆ Your body is always generating heat and passing it to the environment.
- ◆ The harder your body is working, the more heat it has to lose.
- ◆ When the environment is hot or humid or has a source of radiant heat (for example, a furnace or the sun), your body must work harder to get rid of its heat.

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- ◆ If the air is moving (for example, from fans) and it is cooler than your body, it is easier for your body to pass heat to the environment.
 - ◆ Workers over 40 should be more careful because of a reduced ability to sweat.



Controlling Heat Stress

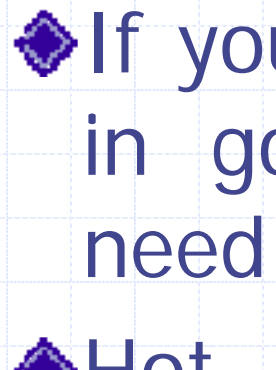
Acclimatization

- ◆ The longer you do hard work in the heat the better your body becomes at keeping cool.
- ◆ If you are not used to working in the heat then you must take a week or two to get acclimatized or used to the heat.
- ◆ If you were ill or away from work for a week or so you can lose your acclimatization.
- ◆ There are two ways to acclimatize:

1. If you are experienced on the job, limit your time in the hot environment to 50% of the shift on the first day and 80% on the second day.

- You can work a full shift the third day.
- If you are not experienced on the job (for example, a new worker) you should start off spending 20% of the time in the hot environment on the first day and increase your time by 20% each following day.

2. Instead of reducing the exposure times to the hot job, you can become acclimatized by reducing the physical demands of the job for a week or two.

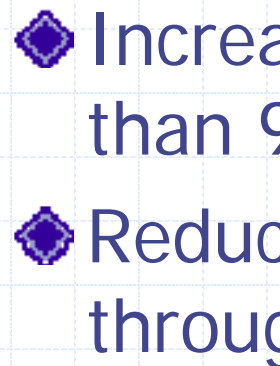
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- ◆ If you have health problems or are not in good physical condition, you may need longer periods of acclimatization.
 - ◆ Hot spells in Mississippi last long enough to allow acclimatization.

Modifying Work and the Environment

- ◆ We can work together to reduce heat stress in the following ways:

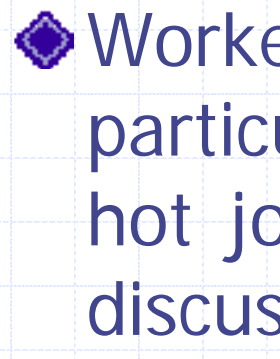
Engineering Controls

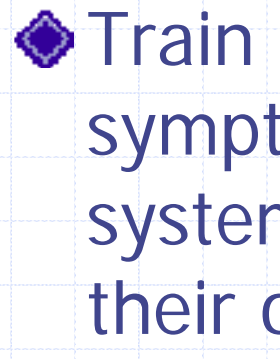
- ◆ Control the heat at source through the use of insulating and reflective barriers (example: insulate furnace walls).
- ◆ Exhaust hot air and steam produced by specific operations.
- ◆ Reduce the temperature and humidity through air cooling.
- ◆ Provide air-conditioned rest areas.

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- ◆ Increase air movement if temperature is less than 95° F (fans).
 - ◆ Reduce physical demands of work task through mechanical assistance (hoists, lift-tables, etc.).

Administrative Controls

- ◆ We should assess the demands of all jobs and have monitoring and control strategies in place for hot days.
- ◆ Increase the frequency and length of rest breaks.
- ◆ Schedule hot jobs to cooler times of the day.
- ◆ Provide cool drinking water near workers and remind them to drink a cup every 20 minutes or so.

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- ◆ Workers should salt their food well, particularly while they are acclimatizing to a hot job (workers with a low salt diet should discuss this with their doctor).
 - ◆ Assign additional workers or slow down the work pace.
 - ◆ Make sure everyone is properly acclimatized.

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- ◆ Train workers to recognize the signs and symptoms of heat stress and start a 'buddy system' since people are not likely to notice their own symptoms.
 - ◆ Pregnant workers and workers with a medical condition should discuss working in the heat with their doctor.

Dress for Success

- ◆ Light clothing should be worn to allow free air movement and sweat evaporation.
- ◆ Outside, wear light-colored clothing.
- ◆ In a high radiant heat situation, reflective clothing may help.
- ◆ For very hot environments, air, water or ice-cooled insulated clothing should be considered.
- ◆ Vapor barrier clothing, such as acid suits, greatly increases the amount of heat stress on the body, and extra caution is necessary.



Thank You!

