

Heat Stress

and the Work Environment



What is Heat Stress?

- Illness caused by exposure to hot temperature;
 - Often occurs when the body is unable to maintain a healthy temperature when exposed to extreme temperature.



Body's Response & Effects

Body's Response to heat

- The body tries to maintain a constant internal temperature
- When the internal temperature rises, the body attempts to get rid of excess heat by:
 - Increasing blood flow to skin surface
 - Releasing sweat onto skin surface

Effects of Body's Response

- Reduced blood flow to brain
 - Reduced mental alertness and comprehension
- Reduced blood flow to active muscles
 - Fatigue, loss of strength
- Increased sweating
 - Slipperiness

When cooling mechanisms fail

#1

High air temperature reduces effectiveness of the cooling system

#2

High humidity reduces evaporation rate of sweat

#3

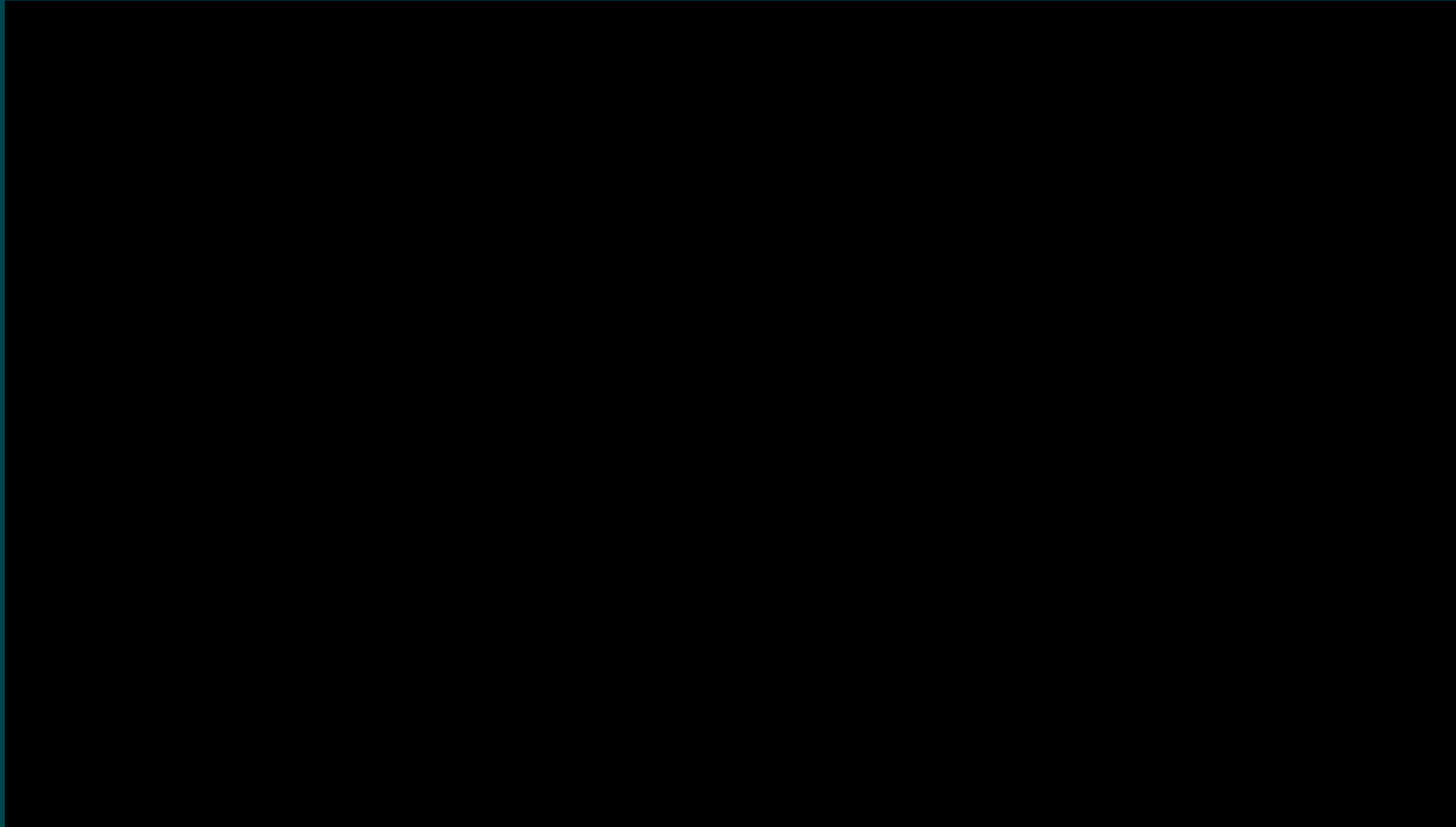
Excess loss of sodium

#4

Dehydration



Enjoy the short video ...



Preventing Heat Illness



1. Know the factors that increase risk

- The environment you're working in
 - The work you're doing
 - Your own conditioning
-

2. Think about what you can do to prevent heat stress

- Drink plenty of fluids
- Choose proper clothing
- Take it easy during the hottest parts of the day

1. Know the factors that increase risk

Environmental Factors

- Air temperature
- Humidity
- Radiant heat source
- Air circulation

Work-related Factors

- Workload
 - Type of work, Level of physical activity, Time spent
- Clothing
 - Weight, Color, PPE and clothing

Personal Factors

- Age
- Weight/Fitness
- Use of drugs, alcohol, caffeine, medication
- Prior heat-related illness

2. Think about what you can do to prevent heat stress

Drink plenty of fluids

- Don't rely on your thirst
- 5-7 oz. every 20 minutes

Choose proper clothing

- Choose light colors and lightest weight possible
- Select proper personal protective equipment

Take it easy during the hottest parts of the day

- Schedule tasks with some consideration of the heat
 - Work/rest cycles
 - Heaviest tasks early morning or dusk
- Eat properly, get enough sleep & rest



**Do you have
any questions?**

Feel free to ask!



Thank You & Have a Nice Day!

Let's work together to create a safe & positive work environment.