





# Heat Stress Management



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# Meaning of Heat Stress









# Heat Stress and People at Risk

- For Individuals working in extremely warm or hot environment, heat stress is more than a minor inconvenience if not controlled
- Intense and strenuous work put individuals at
- Wearing Personal Protective Equipment



# Contributing Factors

## Environmental factors

- Temperature
- Humidity
- Radiant heat (hot equipment, vessels and sun)
- Air movement
- Clothing
- Work rate (difficulty of work)

## Personal factors

- Age
- Body Weight
- Fitness
- Acclimatization or intolerance – working in a hot environment for prolonged period



# Effects of Heat Stress on the Body

- Heat Rash
- Heat Cramp
- Heat Stroke
- Heat Exhaustion





# Assessment, Monitoring, Hierarchy of Controls and Management

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# Assessment and Monitoring of Heat Stress

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Acclimatization

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Screening Methods

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Risk Assessment

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WBGT Index





# ACGIH TLVs – Action Limits & TLVs

WGBT Action Limits °C

Allocation of work in work cycle	Workload			
	Light	Moderate	Heavy	Very heavy
75% to 100%	28.0	25.0	-	-
50% to 75%	28.5	26.0	24.0	-
25% to 50%	29.5	27.0	25.5	24.5
0 to 25%	30.0	29.0	28.0	27.0

WGBT TLVs °C

Allocation of work in work cycle	Workload			
	Light	Moderate	Heavy	Very Heavy
75% to 100%	31.0	28.0	-	-
50% to 75%	31.0	29.0	27.5	-
25% to 50%	32.0	30.0	29.0	28.0
0 to 25%	32.5	31.5	30.5	30.0



## Hierarchy of Control

Prevention

Engineering

Ventilation, Air cooling, Fans, Scheduling & Insulation

Administrative Controls, Work Practices

PPE

# Administrative Controls and Organizational Practices

<b>Time</b>	Reduce exposure time Job rotation Work – rest regimes Work scheduling
<b>Distance</b>	Segregation Restrict access Rest areas
<b>Organisation</b>	Reduce numbers exposed Good working practice Written procedures “Permits to work”

# More management measures

Screening & health surveillance

Information, instruction, training

Supervision

Self regulation

Provide water

## Cooling vest

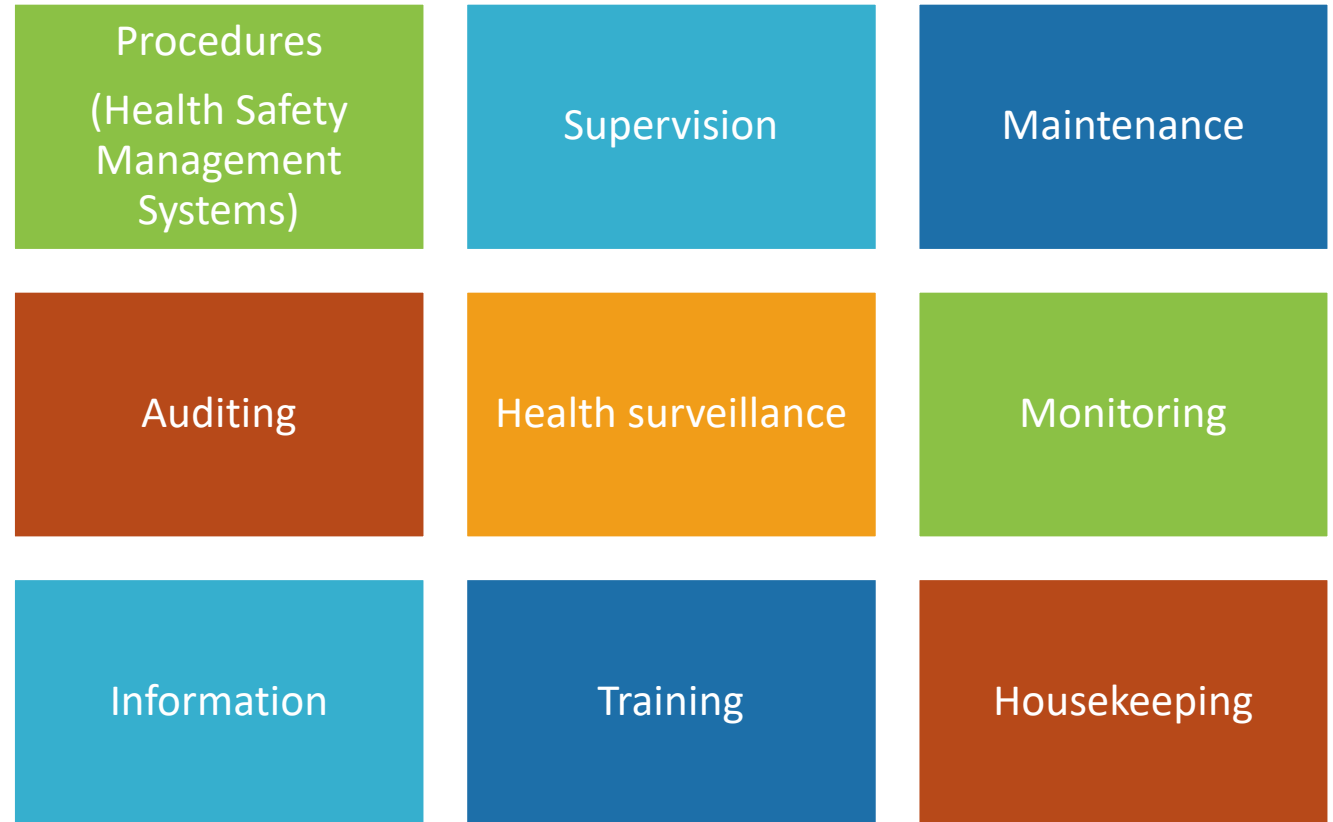


♡ DRINK MORE ♡  
💧 WATER 💧





# Heat Stress - Management Programme



# About WHWB

**Workplace Health Without Borders'** vision is *a world where workers, their families and communities do not get ill because of their work. Our mission is to prevent work-related disease around the world through shared expertise, knowledge and skills.*



***Imagine a world where everyone goes home at least as healthy as when they came to work.***

- A non-profit international organization
  - Registered as a charity in Canada
  - Engages volunteers to address workplace health issues around the world
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- Join WHWB: [www.whwb.org](http://www.whwb.org)
  - Volunteer - we need help with projects, communications, fundraising
  - Participate in our monthly teleconferences
  - email: [info@whwb.org](mailto:info@whwb.org) / [whwb-uk@whwb.org](mailto:whwb-uk@whwb.org)



**Thank you**