Managing heat stress at workplaces

For use by employers for training workers

The information and materials provided in this deck are for general guidance and training purposes only. They do not constitute legal advice and do not replace or override any provisions of the Workplace Safety and Health Act (WSHA), or any other legislation in Singapore. Those using this deck are required to conduct their own risk assessments, develop your own safe work procedures and adapt the contents to suit their specific work environment and corporate policies.



Before you use this

This is a sample training deck. Sections 3 and 4 only contain general guidance. Adapt and replace them with your own site's measures and procedures - every worksite differs in layout, access and resources, so a generic plan is not enough. This deck covers the four required training topics - early signs and symptoms, risk factors, workplace measures and emergency response.

Sections 3 and 4 require your input

- Section 3 - your own heat stress measures
- Section 4 - your own emergency response

What this deck already covers

- The four required training topics, ready to present
- Prompts on each fill-in slide to guide your content

Preface

This deck of slides references MOM's Heat Stress Measures for Outdoor Work and WSH Council's WSH Guidelines on Managing Heat Stress in the Workplace.

Version 1: 05 Nov 2026

Signs and symptoms of heat stress 04

Risk factors for heat stress 06

Workplace heat stress measures 10

(Company to include heat stress measures specific to the workplace)

Helping yourself & your co-workers 17

(Company to include emergency procedures specific to the workplace)



01

Signs and symptoms of heat stress

- Recognising signs & symptoms
- Examples of heat illnesses

Signs and symptoms of heat illnesses

Signs and symptoms

Mild to moderate heat illnesses


Dizziness


Painful muscle cramps


Heavy sweating


Brief fainting


Nausea


Weakness

Severe heat illness


Body temp above 40°C


Collapse


Confusion


Seizure

Examples of heat illnesses:


Heat syncope


Heat cramps


Heat exhaustion


Heat stroke

Heat illnesses can develop fast — **Report immediately** should you or your buddy show any of these signs.

02

Risk factors for heat stress

- Personal risk factors
- Environmental risk factors
- Job risk factors

Personal risk factors

1 Age & body



Workers over 65, pregnant workers, or those who are overweight or obese.

2 Unacclimatised workers





Workers newly assigned to outdoor work, returning from long leave of more than a week, new to Singapore or returning workers from countries with cold climate.

3 Health issues



Workers with chronic diseases, medication use, or history of heat illness.

4 Unwell or tired



Workers who are recovering from illness, feeling unwell or tired, or who have been drinking alcohol.

Look out for yourself and buddies. If any of these apply to you or your co-workers, **tell your supervisor.**

Environmental risk factors

1 Ambient temperature



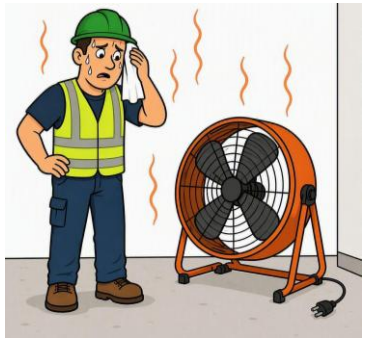
High temperature causes the body to gain heat, e.g. under the sun or near a hot engine.

2 Ambient humidity



High humidity reduces sweat evaporation, making it difficult to lose heat.

3 Lack of air movement



Poor air movement may cause heat to accumulate in the environment.

4 Direct heat source



Radiant heat from the sun or a hot engine, or contact with hot surfaces, increases the risk of heat stress.

- **Stay away** from heat sources
- **Drink** before you are thirsty
- **Improve** surrounding airflow
- **Report** unsafe conditions

Job risk factors

1 Work duration



Longer duration of work will result in build up of metabolic heat.

2 Workload severity



Strenuous work raises metabolic heat. Such workers need more frequent rest breaks than those on lighter tasks.

3 Clothing & PPE



Thick, impermeable clothing and PPE limits air movement and sweating, reducing heat loss from the body.

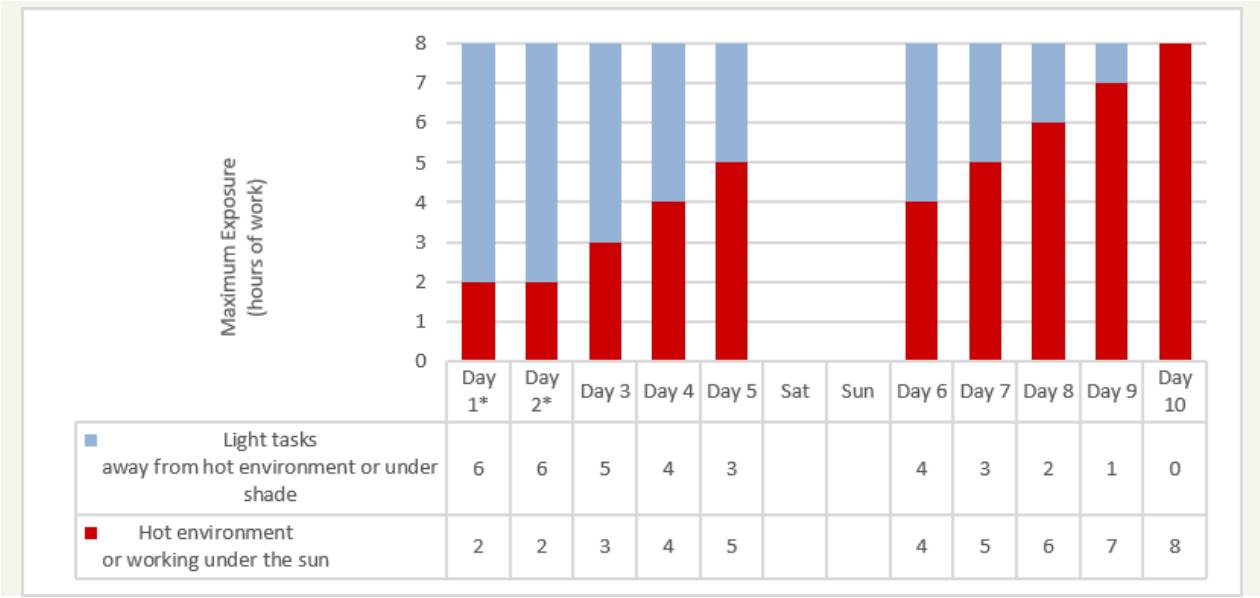
Manage the work demands. **Be aware** of the overall burden on the body, **use mechanical aids**, and have **regular rest breaks**.

03

Workplace heat stress measures

- Heat stress measures at the workplace

1 Getting used to the heat



	Day 1*	Day 2*	Day 3	Day 4	Day 5	Sat	Sun	Day 6	Day 7	Day 8	Day 9	Day 10
Light tasks away from hot environment or under shade	6	6	5	4	3			4	3	2	1	0
Hot environment or working under the sun	2	2	3	4	5			4	5	6	7	8

If you are new to Singapore, from a cooler climate, returning from prolonged leave of more than a week, or transitioning to outdoor or daytime work, you must **slowly increase** your time doing hot work and **follow the schedule given by your supervisor.** This improves your heat tolerance, endurance and productivity.

Example of acclimatisation schedule

Day 1 – 2	Limit work in the heat to about 2 hours for the entire work shift. Avoid hottest time of day.
Day 3 onwards	Gradually add 1 more hour of heat exposure each day.

A minimum of 7 working days is needed; acclimatisation can take up to 14 days.

2 Drink enough water



Colour	Level of Hydration
No colour (clear)	Good hydration
Pale yellow	Good hydration/mild dehydration
Dark yellow	Mild/moderate dehydration
Orange	Moderate/severe dehydration
Brown	Severe dehydration

- Recommend to drink **at least 300ml of cool water every hour.**
- Cool drinking water should be supplied near work areas.
- Do not wait until you feel thirsty. **Drink regularly** throughout the day.
- **Check your urine colour**: clear or pale-yellow means you are well hydrated; darker means you need to drink more.

3 Take your rest breaks

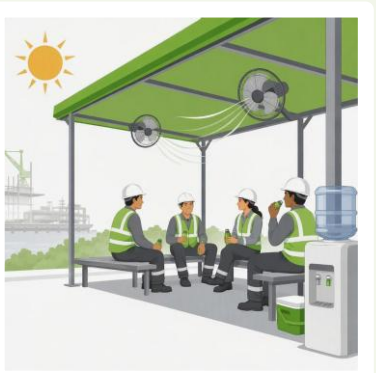


- When Web Bulb Globe Temperature (WBGT) reaches 32°C and above, workers to take a minimum rest break of 10 minutes every hour for heavy physical work.
- When it reaches 33°C and above, take a minimum rest break of 15 minutes every hour.
- **Never skip a break** to finish the job faster.

4 Rest under shade and stay cool







- **Know the location of your nearest rest area.**
- Rest in cool shaded rest areas with good ventilation, away from direct sun.
- Use loose-fitting, breathable or moisture-wicking clothing.
- On very hot days, **sponge or rinse yourself** with water to cool down.

5 Take care of yourself



- **Have enough rest** before work. Being tired increases your risk of heat illness.
- **Tell your supervisor** if you are unwell or on medication.
- Use trolleys, hoists and power tools, and share heavy tasks, to reduce physical strain.

<Action needed> Our site-specific heat stress measures

Input with your own site's details. Examples include:

- Rest schedules and work rotation for tasks.
- Where shaded rest areas and hydration points are located.
- Company's acclimatisation programme for new and returning workers.
- Control measures for specific work activities.
- How is WBGT monitored at this site, and how is it communicated.

04

Helping yourself & your co-workers

- If you feel unwell from heat
- If a co-worker shows signs of severe heat illness
- How can you help your buddy/co-workers

If you feel unwell from heat (mild to moderate)

Signs and symptoms


Dizziness


Painful muscle cramps


Heavy sweating


Brief fainting


Nausea


Weakness

1 Tell your supervisor or buddy



Tell your supervisor or buddy your symptoms straightaway.

2 Rest in the shade & drink cool water



Move out of the sun to a cool, shaded rest area with good airflow, and loosen or remove excess clothing.

Drink cool water to hydrate and cool yourself.

Use ice packs to cool yourself further.

3 See a doctor early



Get the doctor's memo and **pass it to your employer**.

If diagnosed as heat illness, your employer should **report it to MOM**.

⚠ **Tell your supervisor or buddy to call 995 if the conditions did not improve after resting.**

If a co-worker shows signs of severe heat illness

Signs and symptoms



Body temp above 40°C



Collapse



Confusion



Seizure

1 Report immediately



Report immediately to your supervisor should you see a fellow worker/ buddy show any of the symptoms.

Call 995 for medical emergencies.

2 Bring them into the shade & cool them down



Move them out of the sun to a cool, shaded rest area with good airflow and remove clothing.
Reduce their temperature by applying ice packs, wet towels or cool water.
Assist them in drinking cool water. If unconscious, do not give water as it may result in choking.

3 Provide immediate assistance



Stay with them and provide on-site assistance until medical services arrive. Do not leave them alone.

How can you help your buddy/co-workers

Know the emergency procedure



Familiarise yourself with where the **emergency supplies** are kept and participate in **emergency drills**

Watch out for one another



Use the buddy system. Watch out for dizziness, confusion, staggering, cramps or vomiting, and ask them if they are feeling unwell.

Remind them to stay hydrated



Remind your buddy to drink water regularly and not to wait until they feel thirsty.

Report immediately



Report immediately to your supervisor should you or a fellow worker feel unwell.

<Action needed> Our site-specific emergency response

Input with your own site's details. Examples include:

- Our nearest cooling and first-aid points.
- Our trained first-aiders who start immediate cooling.
- Who to alert, and how we call for medical help.
- Our ambulance access point and evacuation route.
- How we record, report and review incidents.

Heat illness can escalate FAST

Remember these



01

DRINK

300ml or more of cool water every hour is recommended



02

SEEK SHADE

Take your rest breaks away from the heat



03

SPEAK UP

Report symptoms immediately

Look after yourself and your buddy.