

## Protecting our workers: safe working under the sun

**With global temperatures increasingly on the rise and coupled with the tropical humid climate here in South East Asia, the risk of heat related illnesses and skin diseases have become risks that need to be discussed and mitigated for the working population in this region.**

International experts for occupational health and safety have produced statistics that solar UV radiation is on the rise and is of particular risk to outdoor workers as well as those with fair skin and blue eyes, whose levels of protective melanin are lower.<sup>1</sup>

Liberty Specialty Markets (Liberty) explores the current trend of heat related illnesses and skin diseases, and measures that proactive Singaporean employers can take to mitigate such risks.

### This fact sheet covers:

- ▶ Heat related illnesses
- ▶ Singapore's mitigation of heat exposure
- ▶ Best practices and proactive measures that employers in Singapore should adopt

### Heat related illnesses

#### HEAT STRESS

Heat stress occurs when an accumulation of heat in the body exceeds the body's ability to remove the extra heat.

A normal human body maintains the core temperature within a very narrow range. Outside this range, vital organs will fail and a person can become unconscious and die.

#### SKIN DISEASES

Exposure to sunlight prematurely ages the skin. Damage to the skin caused by prolonged exposure to sunlight is known as photoaging.

The more exposure to the sun people have, the higher their risk of precancerous growths and skin cancers, including squamous cell carcinoma, basal cell carcinoma, and malignant melanoma.<sup>2</sup>

<sup>1</sup> Paris Summit Responds to Non-Melanoma Skin Cancer 'Epidemic'. IOSH Magazine. Accessed 20 October 2021 at <https://www.ioshmagazine.com/2019/05/17/paris-summit-responds-non-melanoma-skin-cancer-epidemic>

<sup>2</sup> Health Effects of UV Radiation. US EPA. Accessed on 20 October 2021 at <https://www.epa.gov/sunsafety/health-effects-uv-radiation>

## Singapore's mitigation of heat exposure

The Ministry of Manpower and the Workplace Safety and Health Council (WSH Council) realises the hazards caused by working under extreme heat of the sun and has devised programs and guidelines for affected industries to implement onsite.

These [Managing Heat Stress in The Workplace guidelines](#) are available online on the WSH Council website. The guidelines include an overview of heat stress precursors and symptoms. In addition, there is also a guide that helps the reader to conduct a heat hazard identification and risk assessment exercise coupled with detailed possible preventive measures for consideration. There is also an [Activity Based Checklist](#) that can be used to ascertain the preventive measures against heat stress at the workplace.

In addition to the WSH Council guidelines, trade associations such as the Singapore Contractors Association Limited (SCAL) promotes safety time-outs amongst its members and also has sessions to educate on measures to prevent heat stress at their worksites. Human resource departments for companies dealing with outdoor work have access to guidelines issued by the WSH Council which help them to introduce heat acclimatization programs for new foreign workers that come from temperate regions across the globe. WSH or health and safety departments of responsible construction sites and shipyards have also been educated to monitor their outdoor workers and identify any telltale signs of them displaying symptoms of heat stress.

### Best practices and proactive measures that employers can adopt:



Schedule most strenuous work to cooler times of the day



Use a buddy system to watch for symptoms



Post a urine colour chart in washrooms to raise awareness about hydration



Wear appropriate clothing. During periods of elevated temperature, employees should wear light-coloured, lightweight, loose-fitting cotton clothing that allows ventilation of air to the body.



Introduce frequent breaks with easy access to drinking water

Technology can also play a role. We've recently seen technology help employers improve outdoor working conditions, including:

- ▶ Use of drones to deliver documents from ports to vessels thus eliminating the need for a worker to carry on this task.
- ▶ Personal body monitors that detect the current temperature that the worker is working in which can help control exposure to the extreme heat of the sun.

### Conclusion

The aim of this article is to raise awareness of the health hazards related to working under the extreme heat of the sun.

Working outdoors remains fundamental to Singapore's development, impacting a range of activities including the defence of the country, the construction and shipping industries and the tourism and leisure markets.

A concerted effort by the regulators, trade associations and employers in educating, monitoring and mitigating heat exposure goes a long way in reducing the likelihood of the hazards causing harm.

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