

Personal Risk Assessment: Heat Stress for Outdoor Workers

For outdoor workers, the health risks associated with heat stress depend on a number of factors including the environment (e.g. sun exposure), the work being done, personal risk factors of the worker, and protective behaviours.

The following heat safety risk assessment will help you to determine your personal level of risk for heat stress while at work. It will also provide suggestions on how to protect yourself.

In the workplace there are also a range of heat sources (e.g. furnaces, ovens, machinery) which can provide significant heat exposures. These other 'artificial' sources of heat have not been covered thoroughly in this risk assessment. If your work also involves exposure to these artificial sources of heat, your overall risk will be higher than indicated in this assessment.

This personal risk assessment is an educational tool to be used together with heat stress training. If you have questions or concerns regarding any health risks identified, please consult your family doctor.

Instructions for Use

Please answer the following questions and keep track of the number of **a's**, **b's** and **c's** you answer. Use the table at the end of the questionnaire to add up your score. Refer to the risk category descriptions to see your level of risk and what steps you can take to protect yourself.

Workplace Factors

1. When do you work outside?
 - a. Early morning (before 11am) and/or late afternoon/evening (after 3pm)
 - b. Mid-day (11am-3pm)
 - c. All day

2. When working outdoors, are you exposed to the sun for:
 - a. Less than 1 hour per day
 - b. 1-3 hours per day
 - c. 3 or more hours per day

3. Does most of your outdoor work take place between April and September?
 - a. No
 - b. Yes

4. In summer, how often do you notice that the air is humid?
 - a. Never
 - b. Sometimes
 - c. Always

5. Other than the sun, are there any additional heat sources in your work? For example, heat from machinery that is turned on.
 - a. None
 - b. Some
 - c. Many

6. Do you work around reflective surfaces?
 - a. No
 - b. Yes: grass, soil, painted surfaces
 - c. Yes: sea surf, beach sand, concrete, asphalt

7. Is the Humidex posted or shared at your workplace?
 - a. Yes
 - b. No

8. When were you last trained about working in the heat?
 - a. This month
 - b. This year
 - c. Never

9. On a typical day, what is your most common work-rate (i.e. the intensity of work activities you undertake)?
 - a. Low intensity
 - b. Moderate intensity
 - c. High intensity

10. At work, is your skin often damp with sweat?
 - a. Never
 - b. Sometimes
 - c. Always

11. Do you wear lightweight, breathable clothing at work?
 - a. Always
 - b. Sometimes
 - c. Never

12. Do you wear personal protective equipment that is not breathable and therefore prevents sweat from evaporating? For example, fire or chemical-retardant clothing.
- Never
 - Sometimes
 - Always

Personal Risk Factors

13. Are you experienced in your job?
- Yes (e.g. over 1 year)
 - Somewhat (e.g. less than one year)
 - No (e.g. recently started)
14. Are you experienced working in the heat?
- Yes (e.g. worked through multiple summers)
 - Somewhat (e.g. worked through one summer so far)
 - No (e.g. not worked through a summer yet)
15. Do you feel as though you have been acclimatized to work in the heat? Acclimatization is getting your body used to working in the heat. This happens by slowly increasing your outdoor work in a hot environment, including the intensity of your work-rate.
- Yes
 - No
16. Do you drink more water when it's hot outside?
- Never
 - Sometimes
 - Always
17. Do you take more breaks when it's hot outside?
- Never
 - Sometimes
 - Always
18. Are you 40 years or older?
- No
 - Yes
19. How would you describe your physical fitness?
- Highly active
 - Moderate active
 - Inactive

20. Would you describe your weight as overweight?
- a. No
 - b. Yes
21. How would you describe your alcohol consumption?
- a. Low
 - b. Moderate
 - c. Heavy
22. Do you have any medical conditions which may decrease your ability to cope with the heat? For example, heart disease, diabetes mellitus, cystic fibrosis, hyperthyroidism, or chronic skin disorders.
- a. No
 - b. Yes, one of the conditions listed
 - c. Yes, multiple conditions listed
23. Are you on medication that may cause problems when working in the heat?
- a. No
 - b. Don't know
 - c. Yes
24. Have you experienced heat stroke before?
- a. No
 - b. Yes

Scores

Complete the following table by counting the number of times you have answered **a**, **b**, and **c**. Add up the risk score column to get your total risk score. Score 0 points for every time you answered **a**, 1 point for every time you answered **b**, and 2 points for every time you answered **c**.

a's		0	= 0
b's		x 1	=
c's		x 2	=
TOTAL Risk Score			=

Results

0-16 Points:

I am at a low risk.

Although you may spend limited working in the heat, already protect yourself well, or do not have many personal risk factors for heat stress, you may still be at risk. **Continue to protect yourself** whenever you are out in the heat at work and in your free time.

17-33 Points:

I am at a medium risk. While you may only work out in the heat on some days, may already be making use of some heat protective measures or have limited personal risk factors for heat stress, you are still at an increased risk for heat stress due to over-exposure to the heat.

To reduce your risk, **continue to take steps** to protect yourself from the heat both at work and in your free time by:

- Know the signs and symptoms of heat stress
- Watch/Look out for each other
- Wear sunscreen and a hat!
- Drink water frequently— avoid beverages with alcohol and caffeine
- Wear lightweight, loose-fitting clothing
- Take breaks in the shade and more often on hot days
- Know how your workplace deals with heat stress

34-66 Points:

I am at a high risk. Because you work outside in the heat regularly, may not be adequately protecting yourself from the heat, and/or have personal risk factors for heat stress, you are at a high risk of heat stress due to over-exposure to the heat.

To reduce your risk, **it is extremely important** that you take steps to protect yourself from the sun/heat both at work and in your free time by:

- Know the signs and symptoms of heat stress
- Watch/Look out for each other
- Wear sunscreen and a hat!
- Drink water frequently— avoid beverages with alcohol and caffeine
- Wear lightweight, loose-fitting clothing
- Take breaks in the shade and more often on hot days
- Know how your workplace deals with heat stress

Content adapted from the following source: Health and Safety Executive United Kingdom. (n.d.) *Heat Stress Check List*. Retrieved from <http://www.hse.gov.uk/temperature/assets/docs/heat-stress-checklist.pdf>

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