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| KAUST Health and Safety Toolbox Talk | Toolbox Talk Number | HSE/RF/TBT/006 |  جامعة الملك عبد الله للعلوم والتقنية King Abdullah University of Science and Technology |
| | Title | Heat Illness Prevention: Symptoms & Treatment | |
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The following are the normal responses to excess body heat:

- Reddened skin.
- Body surface temperature increases slightly.
- Sweating increases to provide evaporative cooling.
- Acclimatization occurs over a few weeks.

Typical symptoms and treatment guidelines for the more serious conditions of Heat Stroke, Heat Exhaustion, Heat Cramps, Heat Rash and Fainting are given here:

| Heat Related Condition | Typical Symptoms | Treatment Guidelines |
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| Heat Stroke The most serious heat illness. Heat stroke can be fatal and requires prompt medical attention. | <ul style="list-style-type: none"> • High body temperature. • No sweating. • Hot dry skin. • Very rapid, weak pulse. • Confused/ irrational behavior. • Loss of consciousness, coma. | <ul style="list-style-type: none"> • Immediately call for emergency medical assistance: 911 from a KAUST landline, or 012 8080911 from a mobile. • Place person in a cool, shady area and do not leave them alone. • Cool person rapidly with running water, or rapid fanning. • Provide cool drinking water if the person is alert and can sip small amounts quickly. |
| Heat Exhaustion Results when there is loss of salt and water through excessive sweating and failure to either drink sufficient fluids, take enough salt or both. | <ul style="list-style-type: none"> • Excessive sweating. • Extreme weakness, fatigue. • Pale, cold clammy skin. • Dizziness, headaches. • Nausea, vomiting. • Muscle cramps, usually abdominal. • Fast, shallow breathing. • Loss of consciousness. | <ul style="list-style-type: none"> • Place person in a cool shady area and do not leave them alone. • Cool person rapidly with running water, or rapid fanning. • Get medical attention immediately when there is a loss of consciousness. |
| Heat Cramps Heat cramps are painful spasms of the muscles that occur when workers drink large quantities of water but fail to replace their bodies' electrolyte loss through sweating. | <ul style="list-style-type: none"> • Muscle spasms, usually in the lower extremities, abdomen or both. • Cool, moist skin. • Rapid pulse. • Remains alert. • Normal body temperature. | <ul style="list-style-type: none"> • Stop work and move the person to a cool, shady resting place. • Give enough cool drinking water, juice or oral rehydration solution. • Let the patient rest, and consult a medical professional to determine rest hours. |
| Heat Rash Also known as "prickly heat". | <ul style="list-style-type: none"> • Heat rashes exhibit as red spots on the skin that cause a prickling sensation during heat exposure. | <ul style="list-style-type: none"> • In most cases, heat rashes will disappear when the affected individual returns to a cooler climate. • Get medical attention if condition persists. |
| Heat Collapse (Fainting) This condition is caused by prolonged standing, particularly in one spot. | <ul style="list-style-type: none"> • Fainting, collapse. | <ul style="list-style-type: none"> • Immediately call for emergency medical assistance: 911 from a KAUST landline, or 012 8080911 from a mobile. |

MOST IMPORTANTLY, do not let schedule or productivity influence awareness or caution in high heat weather. Pressure from Supervisors or Persons in Charge or self-induced pressure is the most dangerous hazard. **NEVER IGNORE ANYONE'S SYMPTOMS DESPITE YOUR MEASUREMENTS!**

For more information, please contact rf.safety@KAUST.EDU.SA