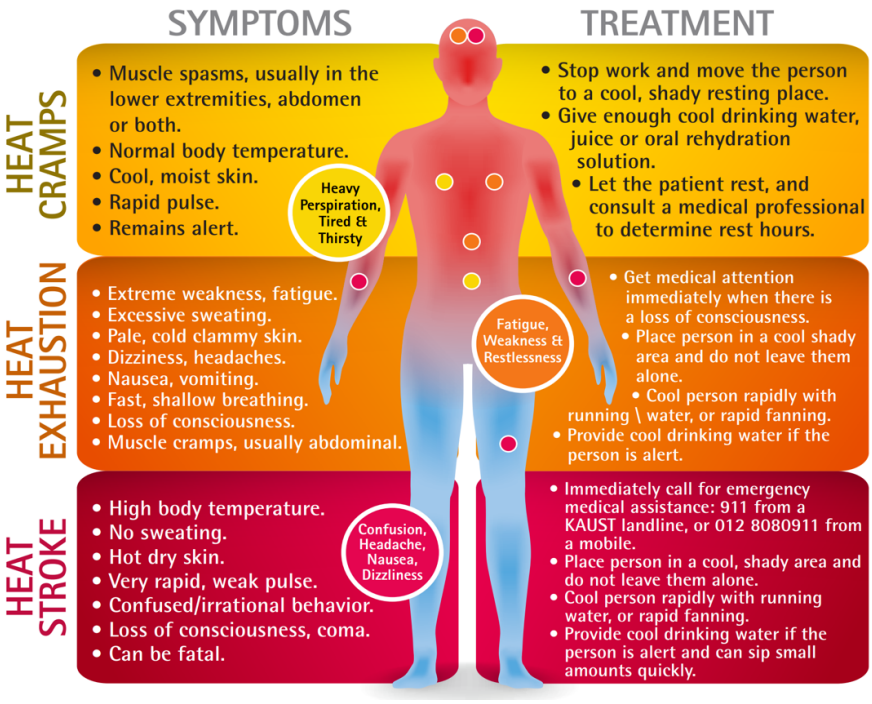
Heat Stress

جامعة الملك عبدالله للعلوم والتقنية
King Abdullah University of Science and Technology
Health, Safety and Environment

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 and Heat Cramps are given here:



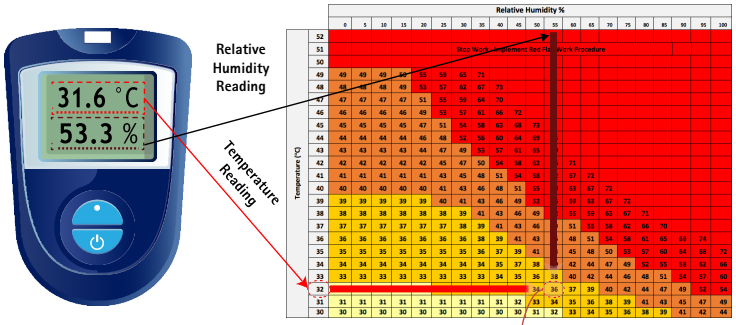
MOST IMPORTANTLY, do not let schedule or productivity influence awareness or caution in high heat weather. Pressure from Supervisors or Persons in Charge or self-induced pressure is the most dangerous hazard. Monitor the Heat Index levels of the area where work is being undertaken and take appropriate action as specified in the Heat Index Table (Please refer to table below).

NEVER IGNORE ANYONE'S SYMPTOMS!

How to Use The Heat Stress Table

1. Monitor temperature and humidity throughout the day using a handheld temperature humidity meter.
2. Take hourly measurements during peak summer months usually from 1 July to September annually (It is good practice to keep record of your readings, date, time, location, temperature, humidity, and Humidex readings).
3. Locate the Humidex Value by plotting the temperature and humidity readings on the Heat Stress Table.
4. Use the Humidex Value to identify the danger category on the Heat Index Table.
5. Communicate real-time results to managers, supervisors and workers with recommended resting and water intake guides, for example by SMS.
6. Check and monitor that precautions are taken.

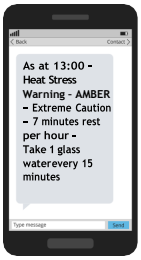
HEAT STRESS TABLE



Humidex Value is between 33–39, which is at Extreme Caution level.

HEAT INDEX TABLE

Danger Category	Humidex Value	Heat Syndrome	Recommended Resting Time	Recommended Water Intake
Caution	27 - 32	Fatigue is possible with prolonged exposure and activity. Continuing activity could result in heat cramps.	Normal/Scheduled	1 Glass/20 minutes
Extreme Caution	33 - 39	Extreme caution: heat cramps and - exhaustion are possible. Continuing activity could result in heat stroke.	7 minutes per hour	1 Glass/15 minutes
Danger	40 - 51	Danger: heat cramps and heat exhaustion are likely. Heat stroke is probable with continued activity.	10 minutes/hour. Control working at heights closely or stop work.	1 Glass/10 minutes
Extreme Danger	>52	Heat stroke is imminent.	All non-protected work stop. Work can only continue for specific activities, with a specific plan, risk assessment and approval from KAUST HSE.	



Notification via mobile SMS

1 Glass = 250 ml.
DO NOT drink more than 1.5 liters per hour (maximum water absorption rate of body)

NEVER IGNORE ANYONE'S SYMPTOMS DESPITE YOUR MEASUREMENTS!