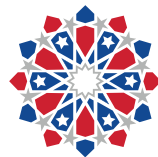


Health, Safety, Security & Environment Handbook

# A Basic Guide to HSSE Management System



AMERICAN  
UNIVERSITY  
OF BAHRAIN



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# INTRODUCTION

**This handbook was created by the Health and Safety Office of the American University of Bahrain (AUBH) for the use of all staff, faculty, and students. The aim is to keep all individuals informed concerning basic health and safety topics, which are referenced in this handbook. It is the policy of AUBH, as a responsible employer and in accordance with Health and Safety at work and other local country statutory requirements and recognized good practice, to strive for excellence and continual improvement so far as is reasonably practicable in the health, safety, and welfare of its staff, faculty, and students, and of others who are affected by its work.**

## General Statement of Health and Safety Policy

The American University of Bahrain (AUBH) is committed to provide and maintain a safe and healthy work environment for all employees, students, visitors, vendors, and contractors, and will continually strive to improve its health, safety, and environmental performance.

AUBH will conduct its operations in a safe manner and take all practical steps to eliminate any potential hazard or reduce risks that may result in personnel injury or ill health, damage to the workplace environment, or property loss.

As a minimum requirement in the conduct of its activities, AUBH at all levels will comply with applicable legal and other requirements.

AUBH will establish, implement, and maintain processes for participation and consultation with employees including documented objectives, which would be reviewed and updated annually or as needed.

Every Manager has primary responsibility for the safety and well-being of the personnel, equipment, and facilities under his/her charge.

As a condition of employment, all employees are required to perform their jobs properly and safely, maintain a safe and healthy workplace, and promote the protection of the environment.

Everyone who manages or participates in AUBH operations is expected to commit to this policy.

## Safety Command and Control Structure

This section relates to the division of labor in respect of health and safety issues; it asks who will carry out such functions.

- The overall coordination of health and safety procedures/issues is vested in the governing body (AUBH). Strategic responsibility for the implementation of the University's Health and Safety Policy lies with the Campus Executive Director.
- The Campus Health and Safety Officer will develop a Health and Safety Committee that will meet monthly to discuss campus health and safety issues and concerns. Minutes will be taken, signed, and reviewed by senior management and filed with the Campus Health and Safety Officer.

- The Health and Safety committee structure should consist but not be limited to the following individuals/positions:
  - a. Chief Operating Officer
  - b. Director of Facilities
  - c. Health and Safety Officer
  - d. Director of Student Affairs
  - e. Human Resources Manager
  - f. At least two representatives from staff and faculty
- To pursue the objectives of the University in respect of health and safety and to monitor their implementation by the Health and Safety officer. The Campus Executive Director or representative will follow the reporting procedures at regular intervals.
- The Health and Safety Officer shall coordinate to periodically conduct workplace inspections and evaluations, which are applicable to all areas and facilities that may have significant hazards and risks.
- Applicable legislations that are relevant to health & safety are to be periodically reviewed to ensure the compliance by the Health and Safety Officer.
- Any injury of a staff member must be reported by the Department of Human Resources within 1 working day of the incident/accident to the Health and Safety Officer.
- Any injury of students must be reported by the Student Affairs Office within 1 working day of the incident/accident to the Health and Safety Officer.
- A summary report of all injuries/incidents will be collected by Health and Safety Officer on a monthly basis.
- All applicable levels and functions will be able to participate in health and safety programs by depositing a participation card. AUBH community can report any occurrence, including near misses, hazards, and suggestions related to Health, Safety and Environment aspects.
- List of Contacts: The Management of Health and Safety requires campuses to maintain contacts for whom can be called upon for assistance and advice, to supplement in-house skills and competence at AUBH. The University identifies bodies including the following, for information and guidance.

Name	Department	Phone	Email	Location
Husain Talaq	Health & Safety	77977015	husain.talaq@aubh.edu.bh	AUBH Campus
---	Clinic Nurse	77977076	clinic@aubh.edu.bh	Sports Center
---	Security	77977034	security.gate@aubh.edu.bh	Gate 1
Emergency Services	Police, Ambulance, Civil Defence	999	--	Local Authority





## Accidents/Incidents/Injury Reporting

All HSSE accidents and incidents must be reported which caused any of the following:

- All non-first aid case injury or illness to an employee or student.
- A significant spillage or release of any flammable, corrosive, or toxic substance.
- Damage to university facility, equipment, material, building, or property.
- Any event with the potential to cause injury, damage, or other loss.
- Any intentional communication for threats and violence to feel terrorized, threatened, or fear physical injury or death to oneself or another person.
- Physical assault/abuse.
- Any action of vandalism involving damages to the university properties.
- Theft or crime of stealing of very important things.
- Intoxicated person due to alcohol or other psychoactive chemicals.
- Possession of any weapons/dangerous chemicals.
- Harassment and bullying to subject another to hostile or prejudicial remarks or actions, pressure or intimidate including cyberbullying.

As appropriate, all personnel involved in an accident/incident must:

- Immediately report the event to their immediate Supervisor, and/or Departments of Student Affairs (for students) and Human Resources (for staff).
- Seek first-aid attention for any resulting minor personal injury.
- Assist in any subsequent investigation of an accident/incident.

the appropriate department when necessary, can investigate the cause of all accidents and incidents and ensure any preventative action that can be taken is recorded and implemented.

## First Aid Procedures

The University is maintaining a comprehensive, integrated First Aid arrangement, including the provision of the following facilities:

- Clinic room with a designated nurse that offers an advanced primary care service on the ground floor of the Sports Center.
- First Aid boxes are in other accessible areas.
- A list of those employees holding current first aid qualifications will be held by the campus Health and Safety Officer.
- The campus Nurse is responsible for checking and maintaining all University First Aid boxes on a regular basis and replenishing materials that have been used in any reported incident.

Whenever First Aid materials are used, it must be recorded within the First Aid Cases Log Sheet. Should immediate assistance be required, the First Aider must be called by the first member on the scene and notify the Emergency Services on 999 for an ambulance, if necessary.



# Fire Safety Procedures

- Regular fire drills must be held on all premises at least once in a year and recorded formally to enable regular reviews of procedures and targets set for evacuation.
- Fire Exits must be in a proper condition.
- Escape routes must be always kept clear/clean.
- Fire notices are displayed in all buildings. Fire escape routes must be adequately signed.
- University based fire risk assessments are periodically undertaken. Regular risk assessments should be carried out by the Risk Assessment Team. The risk assessments will identify specific fire hazards and identify measures to control associated fire risks. The University aims to develop in-house competence in fire risk assessment training. Such training will be simultaneous with generic risk assessments. This is to comply with the fire precautions.

## General Instructions in Case of Fire

Everyone is expected to become familiar with their work area and exit paths to be used in case of an emergency. Always know at least two ways to exit a building.

- When a fire is discovered, do not try to extinguish it by yourself unless you are trained and safe to do so.
- Activate the nearest Fire Alarm Box.
- Security will dial the Civil Defence Emergency Call Center number, 999, and report the exact location of the fire. Do not hesitate in activating the Fire Alarm Box upon the detection of fire and/or smoke.
- If a fire alarm is heard, you should put the material in your usage in safe condition, evacuate immediately to the closest emergency exit, and report to the assembly point. (Appendix A)
- Close all doors but do not lock them as you leave the area to confine the fire and smoke. Before exiting through any closed door, check for heat and the presence of fire behind the door by feeling the door with the back of your hand. If the door feels very warm or hot to touch, advise everyone to proceed to another exit, but if safe, proceed with the evacuation.
- Do not use elevators. If power is disrupted, elevators will stop working and will remain on the ground floor with the doors opened.
- If smoke is encountered, bend on your knees and crawl along the wall to the nearest exit.
- If you are unable to exit the building:
  - a. Remain calm and do not panic.
  - b. Remain low and crawl, if necessary.
  - c. Place a cloth, wet if possible, over your mouth to serve as a filter.
  - d. Signal for help from a window (use a towel, clothing, sign).
- Walk in single file, and stay to one side when walking through corridors and staircases.

- Avoid unnecessary talking and keep the lines moving.
- Individuals requiring assistance in an evacuation should proceed to a staircase entrance area and wait for assistance.
- Be aware that faculty, staff, and students with disabilities may also need individual assistance. Assist them whenever possible. A list of students with disabilities is updated each semester and is available for emergency responders in the event of an emergency. All faculty and staff with disabilities may contact the Health and Safety Office if they would like to be placed on the list.
- It is critical to meet at the designated Assembly Point outside and away from the building, in order to know that all individuals evacuated the building. The determined Assembly Points for the AUBH premises are in the parking area and it is required that everyone stands behind the designated lane number (Appendix B).
- If the fire is progressing in an aggressive manner, all individuals, instructed by responsible persons, will continue to move to Assembly Points noted within Appendix A, in order to be safe.
- The Fire Warden of the location will conduct floor sweeps to ensure all individuals have been evacuated from the building. The Fire Warden will then exit the building and report the location of any missing/trapped individuals to top management.
- Firefighters and pre-designated staff and/or faculty, who are trained in fire precaution, will assist all persons who require special assistance to evacuate the building to a pre-designated area of safe refuge on the floor in which they work, or to the nearest staircase. Re-entry will be allowed when the local Fire Agency or the authority having jurisdiction has cleared the building. This will be indicated through a verbal notification by the local Fire Agency (civil defence). Authorized persons can only turn off the alarm when directed by the Campus Safety Officer/ local Fire Agency.

**Note:** All members of AUBH are required to review the Emergency Evacuation Plan and the escape route drawings for the building in which they work or attend class. The objective of this document is to provide all members of the personnel, faculty, and students with a comprehensive procedure for evacuation of the buildings in case of fire.

## Emergency Procedures

- In the event of an emergency evacuation, the assigned Emergency Evacuation Team should ensure that their areas are cleared and should report to the Head of Evacuation Team.
- No employee, student, or visitor may re-enter the premises until permission is given by the Head of the Evacuation Team
- The Campus Facilities will maintain regular contact with the campus Health and Safety Officer, to ensure that premises are appropriately sign-posted and adequate facilities exist for emergencies.
- In the event of an emergency, all persons must evacuate and assemble at the nearest designated assembly points.

**Note:** Emergency response guide that shows the special circumstances within the classrooms have been posted for issues related to seizure episodes, tingling sensation, breathing difficulty, fainting, diabetes and low blood sugar.



## Smoking Policy

- AUBH does not permit smoking on most areas of its property.
- AUBH is committed in creating a high quality, healthy, and safe working environment for staff, students, and visitors. In accordance with that commitment, AUBH recognizes the right of all staff and students to work and study in a smoke-free environment and has applied a policy of “no smoking” within its campus. Smoking is prohibited in all buildings (this includes all offices, classrooms, auditoriums, corridors, lifts, stairwells, toilets, etc).
- Smoking is also prohibited at the entrances of buildings, around buildings, and in the pedestrian paths leading to building entrances to ensure that tobacco smoke will not enter the building via the doorway or windows.
- Smoking is not permitted within all vehicles owned or operated by AUBH. “No smoking” signs are displayed in some areas, as required.
- Compliance with AUBH policy should be managed on a local basis. Responsible persons are requested to implement the policy in the area which is under their responsibility and ensure that staff, students, and visitors and, where applicable, contractors are made aware of this policy and comply with its requirements.

## Lost and Found Policy

Items that are lost or found shall be reported through lost and found report by the particular person to Gate 1 Security, Lost item will be kept within a security container to prevent any pilfering. The claimant must contact Gate 1 Security and is required to provide a valid identification description to return that property to the rightful owner, Only after Security staff are fully satisfied of the ownership and identity of the person making the claim should the item be released.

Found items maintains lost and abandoned property as per the following retention schedule:

Approx. Value	Retention Period
Under BHD 100	1 month
BHD 100 or above	2 months
Cash	3 months

Whenever found items are exceeding the retention period and no claim was made to receive the property, AUBH will have full right to dispose, or handover the found item to Ministry of Interior, or any national registered Charity.



## Laboratories Procedures

- Operating the laboratories should only be in accordance with the approved risk assessment.
- No one is allowed in the laboratory without the supervision of a Laboratory Instructor. No laboratory work will be done without supervision. Perform only authorized experiments, and only in the manner instructed.
- Only laboratory room where the same laboratory course is operating may be used for the purpose of experiments.
- Do not touch anything in which you are not completely familiar, always ask your Laboratory Instructor for advice.
- Horseplay and carelessness are not permitted and are cause for expulsion from the laboratory. You are responsible for everyone's safety.
- Report all accidents, injuries or breakage to the Laboratory Instructor immediately. Also, report any equipment that you suspect is malfunctioning.
- Eating and drinking are not permitted in the laboratory. If you have a medical condition requiring an exception to that rule, notify your Laboratory Instructor.
- If you have a special health condition (asthma, pregnancy, etc.) or any personal health concerns, consult your medical professional before taking chemistry lab.
- Clothing that completely covers the legs - including the skin between the top of the shoe and the bottom of the pant leg - must be worn at all times in the laboratory (tights or leggings are NOT suitable leg covering).
- Closed-toe, closed-heel shoes that completely cover the entire foot must be worn at all times.
- Practice good personnel hygiene. Wash your hands before eating and drinking.

## Sports Center Policy

Because physical exercise can be strenuous and subject to risk of serious injury, AUBH urges you to obtain a physical examination from a doctor before using any exercise equipment or participating in any exercise activity.

Users are requested to seek the advice of their physician, especially those with physical limitations, a history of high blood pressure, heart problems, or other chronic illnesses.

All shall be required to submit a "Physical Activity Readiness Questionnaire" for informational purposes solely prior to using the Fitness Area.

Read the guidelines that posted all around in the Sports Center and obtain proper instructions from the trainer prior to exercising.

Any member who incurs an injury or becomes dizzy/ill while using the Fitness Area should immediately stop exercising and report to the campus clinic or first aider.

You (each Student, Faculty, Staff, and all participating members) agree that if you engage in any physical exercise or activity or use any gym amenity on the premises or off premises, including any sponsored AUBH sport event, you do so entirely at your own risk.

Any recommendation for changes in diet, including the use of food, supplements, weight reduction and/or body building enhancement products are entirely your responsibility, and you should consult a physician prior to undergoing any dietary or food supplement changes. You agree that you are voluntarily participating in these activities and use of these facilities and premises and assume all risks of injury, illness, or death.

## Gate Access Policy

The security procedure recognizes that the AUBH ID Card is the official identification card at AUBH to access AUBH facilities, and other purposes.

AUBH staff, faculty and students inviting guests on campus must send an email to [security.gate@aubh.edu.bh](mailto:security.gate@aubh.edu.bh) informing them about the guest's names, CPR No., company (if any) and expected date and time of arrival preferably 24 hours before the visit for smooth access.

The inviter must be present on campus at all times while the guest is on campus. There may be other restrictions applied in using sports facilities or attend a class which is subject for approval from the appropriate person. Apart from that, the University expects all guests to commit to its rules and policies under the direct responsibility and supervision of the inviter.

Non-routine deliveries or suppliers providing us an item must also be emailed in advance to campus security. All vehicles are subject to security inspection upon entry or exit especially vehicles carrying goods and equipment's in which it may be required to present an authorized exit gate pass form or written approval by relevant department staff.

Gate	Workdays	From	To	Designated Users
1	Sunday to Thursday	05:00 a.m.	19:00 p.m.	Staff and Faculty Visitors
2	Saturday to Thursday	07:00 a.m.	18:45 p.m.	Students Student's Parents/Relatives
3	Sunday to Thursday	07:00 a.m.	18:45 p.m.	Contractors Service Providers

Note: Gates operating hours may differ from time to time as per the operational changes. Access for campus user's beyond working hours and on public holidays will only be granted with the prior consent of the appropriate person.

# Speeding and Parking Policy

AUBH takes the health and safety of its community members very seriously and will not tolerate any reckless actions that could put anyone in danger. Apart from that, The University aims to foster a culture of “respectful and responsible” driving on campus to mitigate the safety risks caused by over speeding or improperly parked vehicles, prevent the possibility of having a property damage, maintain access to buildings, emergency route and other campus facilities, and assist in providing comfortable parking for individuals with special needs, faculty, staff, students, and visitors.

## General Guidelines:

- The maximum speed limit on campus is 25km\h.
- Drifting and reckless driving are prohibited.
- Park your car in the designated parking zone (P1, P2 and P5 are the designated car parks to staff while P3 and P4 are the designated car parks to students).
- Do not park in a non-parking space, loading, or operational areas.
- Do not improperly park your car in a way that obstructs the traffic, blocks another car, or occupies two spaces.
- Do not park in a named or reserved car park.
- Do not park in a space designated for individuals with special needs unless it has been coordinated/and authorized by Student Affairs/Human Resources in advance.

It is the responsibility of every person who owns or operates a vehicle to be familiar with. Noticing of any violation will directly be notified via the AUBH email address. This will constitute rule delivery of the violation ticket to the vehicle’s driver. Non-receipt of an issued ticket does not invalidate the citation as well as ignorance of the guidelines is not considered a valid excuse for violations. (See parking map Appendix C)

Violations of the above guidelines will result in the enforcement of the penalties indicated on the next page.

Violation	First	Second	Habitual Violation (Within six months of the second violation)
Over speeding	Warning with limited car access for a month	Limit car access for a semester	Limit car access on campus
Drifting	Warning with limited car access for a month	Limit car access for a semester	Limit car access on campus
Causing an accident due to reckless driving*	Warning with limited car access for three months	<b>Suspension</b> for one academic semester	<b>Expulsion</b>
Blocking another car	Warning	BD25	BD50
Parking in the non-designated parking area for staff or students	Warning	BD25	BD50
Parking in a space designated for people with special needs	Warning	BD25	BD50
Parking in a non-parking space, operational or loading area	Warning	BD25	BD50
Parking in a named or reserved car park	Warning	BD25	BD50
Improper parking (obstructs the road)	Warning	BD25	BD50
Improper parking (not in line)	Warning	BD25	BD50
Occupying two parking spaces	Warning	BD25	BD50

\*Other penalties may be enforced depending on the severity of the accident and the size of the damage





## Can-Do Consideration

AUBH has a comprehensive participation program under the name of “Can-Do” which is a vital tool to support communication within the AUBH Community. Through this system, we hope to immediately highlight opportunities to progress towards realizing our shared Mission and Vision.

We greatly value your participation. All submissions will be received and reviewed by the **President’s Office** and any action required will be communicated to the appropriate department in a timely manner. Please note that the submissions can be anonymous – providing your ID number or any other identifying information is optional. However, two-way communication can only be provided if this information is received.

From any part of the world and at any time, you can now raise your insights, suggestions, and observations without limitations and recommend actions for further consideration by scanning the QR Code.





## Animals and Pets Policy

Dogs, cats, and other pets or animals are not permitted on campus grounds. Failure to comply with this policy will result in removal of the animal from campus and may result in disciplinary action against the owner or keeper of the pet/animal.

## Infectious Diseases (MERs and Other Diseases)

Cases of Middle East respiratory syndrome coronavirus (MERS-CoV, previously known as “novel coronavirus”) continue to be reported.

### Good Hygiene Measures Can Help Prevent Illnesses:

- Wash your hands thoroughly and frequently, using soap and water for at least 20 second.
- Avoid touching your face.
- Keep a minimum of 2 meters of distance from people who are coughing, sneezing, or appear sick.
- Avoid unnecessary direct contact with live animals and their environment.
- Ensure any food or drink for consumption is safe-thoroughly washed, peeled, boiled, cooked through, etc.
- Anyone who develops a fever and respiratory symptoms, such as cough, which are more than mild should seek medical attention.

## Respiratory Hygiene (Cough Etiquette)

To prevent the transmission of all respiratory infections where might setting, including influenza, the following measures to contain respiratory secretions are recommended for all individuals with signs and symptoms of a respiratory infection control practices as one component of standard precautions.

- Cover your nose and mouth with tissue when coughing or sneezing, or use the crook of the elbow to contain respiratory droplets.
- Used tissues should be discarded in the nearest waste bin.
- Performing hand hygiene immediately after contact with respiratory secretions & contaminated objects.

***This section is concerned with the First aid measures to be used by a trained first aider***



# Action Plan in Case of Fainting

## Checklist

When someone faints, there are several elements that must be checked before beginning treatment for fainting, such as:

- Was the person injured when they fell?.
- Is the person showing any signs of shock?.
- Has the person had a recent head injury?.
- Has the person fainted recently?.
- Is she pregnant?.
- Is the person breathing normally?.
- Does the person have a history of heart disease?.
- Is the person properly fed and hydrated?.

## Treatment

- The campus Nurse (if available)/First Aider should be called immediately to the incident area to provide treatment to the unconscious person, while at the same time must keep in a distance of other people, who are either in place of the incident or came out of curiosity.
- Lay the person on their back with their feet elevated above their heart, or 20 – 30 cm, if possible
- Loosen any tight clothing and jewelry especially around the head and neck.
- Watch their airways; are they breathing correctly? If they stop breathing, begin to administer C.P.R. when there is a pulse or C.P.R. See the instructions given by each technique below.
- Sometimes when a person loses consciousness, they vomit. Turn the person onto their side if this occurs.
- If you suspect a head, neck, or spinal injury, seek medical assistance as soon as possible and do not move the person unless absolutely necessary.
- Do not try to give the person anything to eat or drink.
- If the person does not regain consciousness within 2 minutes, call 999 or seek alternative emergency medical help.
- If the person is over the age of 40, immediately call 999 to make sure they are not experiencing a heart-related problem.



# C.P.R. Technique

- Lay the patient completely flat on a firm surface.
- Body position: Kneel beside the patient. Position yourself midway between the chest and the head to move easily between compressions and breaths.
- Hand position: find the mid-point of the breastbone (sternum). Place the heel of your compressing hand on the breastbone just below the midpoint. Grasp your wrist with your other hand, or place the other hand on top of the first.
- Keep your shoulders directly over your hands and keep your arms straight. Lean the weight of your upper body onto your hands to compress the chest. Keep a steady, even rhythm and do not “jab” with your hands or punch the breastbone.
- Compress about 4 - 5cm.
- Each compression lasts less than one second. After each compression, release the pressure on the chest without losing contact with it and allow the chest to return to its normal position before starting the next compression.

## C.P.R. / Breathing / Compression Rate

- Give 30 compressions followed by 2 breaths.
- Check the pulse and breathing every two minutes.
- If the pulse returns, STOP compressions immediately. Continue with E.A.R. if there is no breathing.
- If breathing and pulse return, place the patient on their side and wait for an ambulance.

**Note:** People most often faint when there is not enough blood flowing to the brain. When this happens, the person becomes unconscious, and the unconscious spell is usually brief. Fainting is not life threatening, although if the person faints on a regular basis it may be a sign of a more serious medical disorder, and should be discussed with a doctor. If a person feels faint (weak/ lightheaded/dizzy/nauseous), have them lie down with their feet elevated above the level of their heart (about 20 – 30cm), or have them sit with their head placed down between their knees. Fainting may occur because of:

- Emotional and/or physical shock.
- Dehydration.
- Pain.
- Overexertion.
- Heart diseases.
- Sudden changes in body position (most common in the elderly and pregnant women).
- Insufficient fluid and food intake.

# Heat Injury Prevention

**Monitor conditions of heat on campus and recommend modification for scheduling as necessary, Please be aware of the following:**

- Be prepared to apply iced sheets in case of heat injury.
- Ensure to consume drink sufficient amounts of fluids and consume all your meals.
- Ensure to drink frequently in small amounts and observe your fluid intake.
- Ensure to maintain your supply of sunscreen and apply it daily while walking outside.
- Develop a routine to have water intake (e.g., everyone drinks water at a certain time).
- Be prepared to treat and evacuate person who demonstrate signs of heat injury.
- Evaluate the next day's class schedule if two or more heat injuries occur on the same day.
- Look for students who are visibly 'wilting' or struggling.

## Basics of Heat Injury Risk

**The Threat:** Exposure to high environmental temperature produces heat stress in the body. As the body attempts to compensate, physiological strain, or heat load results. This strain, usually in combination with other strains caused by work, dehydration, and fatigue may lead to heat injury. Environmental conditions, namely air temperature, vapor pressure of water in the air (humidity), and air movement influence the heat equilibrium of the body and its physiologic adjustments.

**The Defense:** The body rids itself of heat normally through the skin and by exhaled breath, constituting heat relief. Some heat is discharged by radiation from the skin, but the body relies mostly on evaporation of sweat from the skin to cool.

The adverse impact of high environmental temperature can be reduced by drinking enough water, wearing proper clothing, maintaining a high level of fitness, and resting after exposure to heat. These measures contribute to the body's normal mechanisms for relieving its heat load.

## Identification of Heat Factors:

- Increased heat exposure.
- Increased exceptional levels.
- Lack of quality sleep.
- Poor fitness.
- Overweight.
- Minor illness.
- Taking medications, either prescribed or over the counter, and supplements/dietary aids.
- Prior history of heat illness, any heat stroke, or >2 episodes of heat exhaustion.
- Skin disorders such as heat rash and sunburn that prevent effective sweating.
- Age 40 years and older.

# Types of Heat Injury

1. **Heat cramps** are caused by an imbalance of electrolytes in the body as a result of excessive sweating. This condition causes the casualty to experience cramping in the arms, legs, and abdomen, and sweat excessively, with or without thirst.
2. **Heat exhaustion** is caused by loss of body fluids (dehydration) through sweating without adequate fluid replacement. It can occur in an otherwise fit individual who is involved in physical exertion in any hot environment, especially if the service member is not acclimatized to that environment. These signs and symptoms are as followings: excessive sweating with pale, moist, cool skin; headache; weakness; dizziness; loss of appetite; cramping; and nausea, with or without vomiting.
3. **Heat stroke** is caused by exposure to high temperatures, such as direct sunlight, or being dressed in protective over garments, which causes the body temperature to rise. Heat stroke occurs more rapidly in service members who are engaged in work or other physical activity in a high heat environment, and caused by a failure of the body's cooling mechanism, which includes a decrease in the body's ability to produce sweat. The victim may experience weakness, dizziness, confusion, headaches, seizures, nausea, stomach pains, or cramps, and respiration and pulse may be rapid and weak. Unconsciousness and collapse may occur suddenly.

## Treatment

All treatment must be supervised by a constant observer. Persons with mild heat injuries should be placed in the shade and given fluids to drink. Call the emergency number, 999, if symptoms worsen or do not improve after 30 minutes of rest and re-hydration. Do not start intravenous fluids. This should be done by emergency personnel.

## Suspected Heat Stroke

- Call the National Emergency Call Center on 999.
- Place the person in the shade and remove outer clothing.
- Apply iced sheets.
- Continue cooling until paramedics arrive.
- Do not attempt to evacuate the student yourself; focus on cooling.

## Iced Sheets

- Prepare iced sheets by placing ordinary bed sheets in iced water. Keep iced water ready in ice chests.
- Have ice sheets readily available, either soaking in iced water or in resealable plastic bags.
- When needed, immerse sheet in iced water and ensure it is saturated; this can be done as the person's outer-clothing is being removed.
- Depending on the risk, the ice chests can be maintained at a known location, carried on ambulances and maintained at multiple locations on campus.

## Iced sheets should always be applied as follows:

- Cover as much exposed skin as possible with ice-cold sheets.
- Also cover the top of the head.
- When sheets warm up, put them back into cooler and then reapply.

Iced sheets should be re-iced and re-applied whenever the iced sheets become warm. Cooling should be continued until paramedics arrive. Do not disrupt cooling on the basis of a temperature measurement. Evacuate any student who requires cooling with iced sheets to the nearest emergency room via ambulance.

Stop cooling when the afflicted person begins shivering or their temperature reaches 100 F.

## Mental Status

The mental status changes of heat injury are an important factor when deciding on the treatment of heat injuries. Mental status changes could include confusion, inability to properly follow commands, and/or loss of consciousness.

The following are questions to assess mental status:

1. What is your name?
2. What month is it? What year is it?
3. Where are you?
4. What were you doing before you became ill





## Appendix A

Location of the Assembly Point



## Appendix B

Lanes of the Assembly Point - It is required that everyone stands behind the designated lane number as seen below.





# Appendix C

## Parking Map







The American University of Bahrain,  
P.O. Box 38884, Riffa, Kingdom of Bahrain,  
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