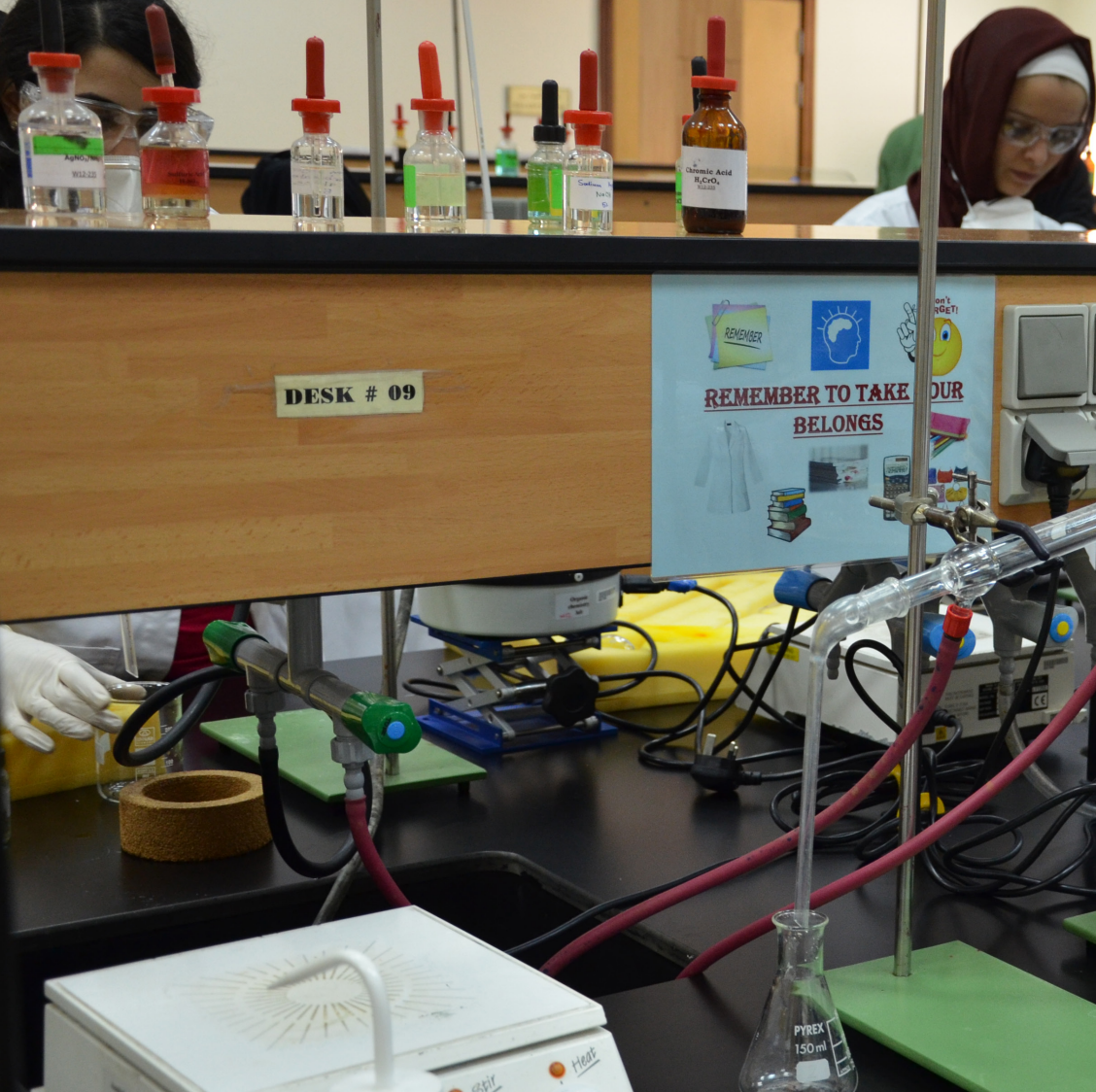




جامعة الشارقة
UNIVERSITY OF SHARJAH



**Emergency
Response Guide**
For Central Labs Personnel



DESK # 09

REMEMBER TO TAKE YOUR BELONGS

What's new in this Booklet?

- Compressed Gas Cylinder Leak
- Cryogenic Liquid Spill
- Biohazard Spill
- Sharp Object Injuries
- Ionizing Radiation Emergency

Revision# 01
September, 2019



Please take some time to read this booklet and familiarize yourself with the Central Labs emergency procedures. If you have any questions, or find yourself unsure about any information presented, please contact your Supervisor or Central Labs Safety Office.



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Introduction

The Central Laboratories Directorate has developed the Emergency Response Guide to provide lab personnel (Faculty, staff and students) with a quick reference guide, explaining how to respond to various types of emergencies, that might occur in the labs, in a way that will help us to reduce the chances of serious injury, minimize damage to university property and assist emergency response personnel in effectively dealing with the emergency.

The guide is providing basic instructions and does not provide an absolute response for every emergency. Keeping calm, exercising common sense, follow basic instructions and calling for assistance will help us to mitigate, respond and effectively recover from any emergency.

Emergency Response

Basic concepts to remember in any emergency:

1. Stay calm; do not panic.
2. Never put yourself at personal risk.
3. Assess the situation.
4. Make sure you are on safe place.
5. Emergency exits and assembly points.
6. Call Emergency numbers for help. (Emergency numbers are available on the backside of this guide and on the emergency poster in the labs)

Important Notes:

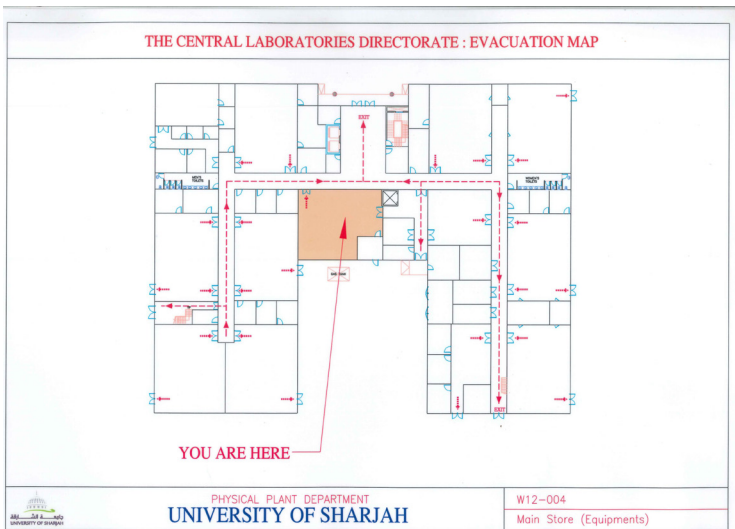
- You should familiarize yourself with the actions that need to be taken in case of an emergency in a laboratory and if a person is affected, and with the emergency alarms, alarm call points, evacuation routes, emergency exits, assembly areas and emergency numbers in your area and building.
- It is the responsibility of the lecture/tutor to ensure that the room/lab is evacuated and to maintain control of the students during an emergency until released by emergency services personnel.

- . You must report any incident to Central Laboratories Directorate (CLD).

Emergency Evacuation

On hearing the Emergency (Fire) alarm:

1. Immediately prepare to leave the building – secure confidential materials and valuables, collect personal belongings, shut down experiments, switch off computers, electrical appliances, equipment and machinery, if it is safe to do so.
2. Leave the building by the nearest safe exit route.
3. Walk quickly and calmly to the designated assembly area for your building. (Do not use the lifts)
4. Remain at the assembly area until instructed to leave by authorized person.
5. Do not re/enter the building until informed that it is safe to do so by authorized person.



Fire Action

If you discover a fire or smoke in the building:

1. Activate the fire alarm by pushing the break glass alarm unit (Red box);
2. Warn people in the immediate vicinity by shouting fire, fire, fire.
3. Turn off the gas valve if present.
4. Switch off Air Conditioning system, if possible.
5. Call fire emergency response numbers:
 - Security Office: 050 586 8063 (24hrs),
Landline No. 06 505 **3025**
 - Civil Defense: 997
 - Central Labs Safety Office:
Ahmed:06 505 **3428**
Rizwan:06 505 **3416**

Fire Fighting:

6. If the fire is small; attempt to extinguish the fire with the suitable fire equipment (i.e. fire extinguishers, fire blanket) if safe to do so and if trained in the use of fire equipment but without taking any personal risk.
7. Choose the correct fire extinguisher. Do not use water or foam on an electrical fire.
8. Always position yourself with an exit or means of escape at your back before you attempt to use an extinguisher to put out a fire. In case the extinguisher malfunctions, or something unexpected happens, you need to be able to get out quickly, and you don't want to become trapped. Just remember, always keep an exit at your back.
9. If the fire is already spreading quickly and you are not able to extinguish the fire so you should evacuate the building.
10. Leave the building immediately by the nearest safe exit route.
11. Walk quickly and calmly to the designated assembly area for your building. (Do not use the lifts).

12. Remain at the assembly area until instructed to leave by authorized personnel.
13. Do not re/enter the building until informed that it is safe to do so by authorized personnel.

If you see flames or smoke in your path:

1. Use the alternate planned route for evacuation.
2. If you must exit through the smoke, get down low on the floor and crawl under the smoke until you passed the threat.

If your clothes catch fire:

1. Stop; do not panic and do not run.
2. Lie on the floor, wherever you are, and cover your face with both hands to protect your face from burns, and prevent smoke and fumes inhalation.
3. Roll around constantly until the fire is out. Rolling around cuts the oxygen supply to the fire.
4. Someone may assist you with the fire blanket if possible,

1. STOP



2. DROP



3. ROLL



OR

5. Extinguish the fire under water if safety shower is immediately available.



Gas Leak Action

In case of LPG or Natural Gas

If You Smell Liquefied Petroleum Gas (LPG) Odor:

1. Extinguish all naked flames.
2. Do not turn on or off any electrical appliances or devices.
3. Turn off the gas valve.
4. Open all windows.
5. Call gas emergency response numbers:
 - Gas technician (Mr. Ramadan):
050 762 6469, Ext: 3458
 - CL Maintenance Eng. (Sancho):
050 885 0246, Ext: 3488
 - Security Office:
050 586 8063, (24hrs),Ext: 3025
 - Gulf Gas Company Emergency Hotline No.:
800 4446 (24hrs)
 - Central Labs Safety Office,
Ahmed Ext: 3428
Rizwan Ext: 3416
6. Warn people in the immediate vicinity.



If The Gas Escape Persists

1. Evacuate the building immediately by the nearest safe exit.
2. Go directly to the assembly point.
3. Do not re/enter the building until you are told by authorized personnel that it is safe to do so.

Remember

- Do not search for the leaks with naked lights.
- Do not switch on/off lights or any other electrical equipment.
- Do not turn gas back on until the escape has been repaired.

In Case of Compressed Gas Cylinder

If you discover a leak form compressed gas cylinder:

1. If possible and safe to do so, close the cylinder valve.
2. Extinguish all naked flames if the gas is flammable.
3. Open all windows, if possible.
4. Evacuate the area.
5. Warn people in the immediate vicinity.
6. Call gas emergency response numbers for help on:
 - Gas technician (Mr. Ramadan):
050 762 6469, Ext: 3458
 - CL Maintenance Eng. (Sancho):
050 885 0246, Ext: 3488
 - CL Safety Office

Ahmed	Ext:3428
Rizwan	Ext: 3416

Remember

- Do not switch on/off lights or any other electrical equipment if the gas is flammable.
- Do not attempt to repair/modify a cylinder or valve under any circumstances.
- The gas cylinder should be installed/removed/transported by the authorized person only.



Cryogenic Liquid Spill

In case of spill

1. Immediately evacuate the area as vapors may cause dizziness or suffocation without warning.
2. Switch off air conditioning system, if possible, to prevent spreading of vapors to other areas.
3. Warn people in the immediate vicinity.
4. Do not allow anyone to enter this area.
5. Do not attempt to clean up a spilled cryogen as all cryogenic liquids are gases at normal temperatures.
6. Call Emergency numbers for help. (Emergency numbers are available on the backside of this guide and on the emergency poster in the labs).
7. Evacuation of the surrounding labs and its occupants may be necessary in case of large cryogenic spill. You may activate the emergency alarm in this case.
8. Check the safety data sheet for additional precautions.
9. Do not re/enter the building until you are told by authorized personnel that it is safe to do so.

Note: It is important to measure the oxygen level in the area by oxygen meter or air quality meter (available at Central Labs Directorate) to assure that the oxygen level is maintained at $\approx 21\%$ to avoid suffocation.

In case of skin contact with cryogen:

1. Rapidly re/warm contact area by immersion in room temperature water (not hot) from tap water or safety shower for at least 15 minutes.
2. Loosen any clothing if possible.
3. Do not rub or use hot water on the affected area as this can cause further tissue damage.
4. Do not remove frozen gloves, shoes, or clothing.
5. Immediately seek medical attention at the hospital emergency department or call UoS Ambulance on
050 527 2233 (Women) or
050 161 9365 (Men).

In case of eye contact with cryogen:

1. Find the closest emergency eyewash and flush eyes immediately under running water for at least 15 minutes.
2. Keep the eyes open during washing.
3. Immediately seek medical attention at the hospital emergency department or call UoS Ambulance on
050 527 2233 (Women) or
050 161 9365 (Men)



Chemical Emergency

Chemical Spill

In case of spill of hazards chemical (Corrosive, Toxic, Flammable, etc.)

1. Warn all persons nearby.
2. Prevent lab personnel from walking through area of the spill.
3. Evacuate lab personnel from the area.
4. If spilled material is flammable, turn off any ignition sources such as burners.
5. Find and read SDS* for the spilled material for information on health hazards and other emergency response.
6. Wear appropriate personal protective equipment (PPE) such as gloves, lab coats, goggles and respirators for spill cleanup.
7. It may be necessary to turn off the air conditioning to restrict the spread of vapors.
8. Spills should be cleaned up immediately by the concerned lab staff and not cleaning services provider as per SDS.
9. Loose spill control materials (absorbing pads) should be distributed over the entire spill area, working from the outside, circling to the inside.
10. When spilled materials have been absorbed, use brush and scoop to place materials in an appropriate container.
11. Decontaminate the surface where the spill occurred using a detergent and water.
12. If you cannot safely respond, evacuate the area and call Central Labs Safety Office. on ext.# 3428/3416, or security office on 050 586 8063 (24hrs) for help.
13. Fill and submit the incident report to CLD.



***SDS: Safety Data Sheet**

Chemicals on Skin or Clothing

1. Find the closest emergency shower/eyewash and flush immediately under running water for at least 15 minutes.
2. Remove contaminated clothing.
3. Seek medical attention at the hospital emergency department or call UoS Ambulance on
050 527 2233 (for Women) or
050 161 9365 (for Men).
(Always follow SDS recommendations and provide the physician with the chemical name and SDS).
4. Fill and Submit the incident report to CLD.



Chemical

Chemicals in Eyes

1. If you have contaminated your eyes, immediately flush your eyes with running water for at least 15 minutes. The eyes must be forcibly held open to wash, and the eyeballs must be rotated so all surface area is rinsed. The use of an eye wash fountain is desirable so hands are free to hold the eyes open. If an eyewash is not available, pour water on the eye, rinsing from the nose outward to avoid contamination of the unaffected eye.
2. Remove contact lenses while rinsing. Do not lose time removing contact lenses before rinsing. Do not attempt to rinse and reinsert contact lenses.
3. Seek medical attention at the hospital emergency department or call UoS Ambulance on
050 527 2233 (Women) or
050 161 9365 (Men)
(Always follow SDS recommendations and provide the physician with the chemical name and SDS).
4. Fill and Submit the incident report to CLD.

Chemical Inhalation

1. Close containers, open windows or otherwise increase ventilation, and move to fresh air.
2. If symptoms, such as headaches, nose or throat irritation, dizziness, or drowsiness persist, immediately seek medical attention at the hospital emergency department or call UoS Ambulance numbers on
050 527 2233 (Women) or
050 161 9365 (Men)
and provide the physician with the chemical name and SDS.
3. Review the SDS to determine what health effects are expected, including delayed effects.

Accidental Ingestion of Chemicals

1. Immediately contact the (Health Authority – Abu Dhabi) HAAD Poison and Drug Information Center/ Abu Dhabi at the national toll / free number (**800 424**) from 7:00 am/ 3:00 pm, Sunday Thursday and follow their instructions.
2. Immediately seek medical attention at the hospital emergency department or call UoS Ambulance numbers on
050 527 2233 (Women) or
050 161 9365 (Men)
and provide the physician with the chemical name and SDS.
3. Do not induce vomiting unless directed to do so.
4. Fill and Submit the incident report to CLD.

Accidental Injection of Chemicals

1. Wash the area with soap and water
2. Immediately seek medical attention at the hospital emergency department or call UoS Ambulance numbers on
050 527 2233 (Women) or
050 161 9365 (Men)

(Always follow SDS recommendations and provide the physician with the chemical name and SDS).

3. Fill and submit the incident report to CLD.

Biohazard Spill

1. Warn all persons nearby.
2. Prevent lab personnel from walking through area of the spill.
3. Evacuate lab personnel from the area.
4. Wear appropriate personal protective equipment (PPE) such as gloves, lab coats, goggles and respirators for spill cleanup.
5. Gently cover the spill with absorbent material, such as paper towels or spill pads
6. Pour (do not spray) appropriate disinfectant (Sodium hypochlorite) over the spill, starting at the outside and working towards the center.
7. Allow 20 minutes of contact time.
8. Use tongs, forceps, or dustpan to clean up broken glass. Dispose into sharps container.
9. Discard used spill pads as biowaste.
10. Apply more disinfectant and wipe the area clean.
11. Wipe down any tools or equipment used with disinfectant.
12. Dispose of all clean up materials and used PPE as biowaste.
13. Thoroughly wash hands with soap and water.
14. Spills should be cleaned up by the concerned lab staff and not cleaning services provider using the biological spill kit if available.
15. If you cannot safely respond, evacuate the area and call Central Labs Safety Office on ext: 3428 or 3416, or security office on 050 586 8063 (24hrs).
16. Fill and submit the incident report to CLD.

Remember

- Determine the biosafety level before deciding how to clean up and/or contain the spill!



If you are contaminated

1. Remove contaminated clothing immediately (place in an autoclave bag for sterilization).
2. Treat the skin with disinfectant (70% ethanol/ Isopropanol) then Vigorously wash exposed area with soap and water.
3. If you have contaminated your eyes, wash with water and soap and flush with lots of water.
4. Immediately seek medical attention at the hospital emergency department or call UoS Ambulance numbers on
050 527 2233 (Women) or
050 161 9365 (Men).
5. Fill and submit the incident report to CLD.



Sharp Object Injuries

(blades, scissors, needles, broken glass, slides, forceps, cutter, microscopic slides etc.)

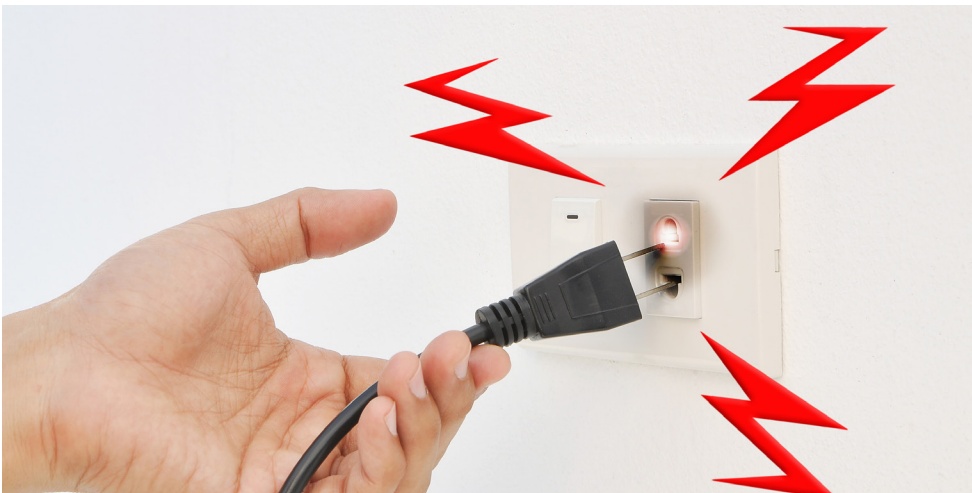
If you are injured with a needle stick or any other sharp object, take the following actions immediately:

1. Wash your wound with soap and water.
2. Apply antiseptic solution (e.g., iodine, isopropyl alcohol).
3. Do not apply disinfectants to the eyes, nose, or mouth.
4. Use sterile gauze to bandage the wound.
5. Immediately seek medical attention at the hospital emergency department or call UoS Ambulance numbers on
050 527 2233 (Women) or
050 161 9365 (Men)
as the sharp object may be contaminated.
6. Fill and submit the incident report to CLD.



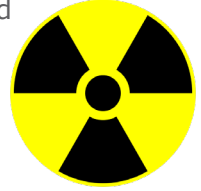
Electric Shock

1. Avoid direct contact with the affected personnel while they are in contact with the electric current.
2. Immediately disconnect the power source via circuit breaker, fuse box, outside switch, or by removing plug if possible.
3. Use a belt or nonconductive material (wooden or plastic) to move the person away from the wires or equipment, and call the emergency numbers:
 - UOS Ambulance:
050 527 2233 (Women) or
050 161 9365 (Men).
 - Security Office:
050 586 8063 (24hrs), Landline No.
06 505 3025
 - Central Labs Safety Office,
Ahmed Ext: 3428 or
Rizwan Ext: 3416
4. Care for the victim until medical help arrives.
If you are trained on the first aid and you are eligible to do this.
5. Check the breathing of victim; in case of no breathing and you are trained on CPR (Cardiopulmonary Resuscitation) help the victim with ratio 30:2 (compression: breaths) until Medical Help arrives.
6. Fill and submit the incident report to CLD.



Ionizing Radiation Emergency

Emergency cases are those leading to an unexpected radiation danger. The main causes of radiation accidents are:



- Fire in the presence of radioactive sources.
- Loss or theft of a radioactive source.
- Loss of control over the operation of a radiation generator.
- Spillage of a radioactive source.
- Overexposure from a radiation or radioactive source.

For further information, please refer to the UOS Radiation Protection Program on [CL Safety Portal](#).

Ionizing Radiation Emergency Contacts

During working hours	<p>UOS RPO</p> <ul style="list-style-type: none"> • Mr. Osama Taqatqa, Mobile: 0526235966, ext.#: 2448 <p>Representative of Radiation Protection in the Department</p> <ul style="list-style-type: none"> • Ms. Mawadah Mubarak, 0506723422, ext.#: 3427 • Mr. Sanoor Mannath, 0501657548, ext.#: 2480
Federal Authority for Nuclear Regulation Emergency Duty Officer	<p>Toll free: 800 3267 999 Mobile: 050 6416 533 Fax: 02 681 1676 Email: RN.ER@fanr.gov.ae</p>

Electric/
Radiation



Medical Emergency

Follow the 3C's of responding (Check, Call, Care) in case the person's condition is uncertain or possibly life threatening.

1- CHECK the scene. Make sure it is safe.

When Checking...

Check for spilled chemicals, fire, downed electrical lines, or smoke. If these conditions exist and have any potential to cause injury or harm, do not go near the ill or injured person and report the incident to UOS Security and CL safety Office.

2- CALL UOS Ambulance on
050 527 2233 (Women) or
050 161 9365 (Men)

Provide the following information:

- Your Name
- Location of injured person (e.g. Building name and number, room number).
- Type of injury or problem.
- The individual's present condition.
- The sequence of events leading to the emergency.
- The phone number where you are.

3- CARE for the victim until medical help arrives. You may start to provide first aid, only if you are trained and eligible to provide first aid treatment.

Remember

- Non-acute injuries are not considered medical emergencies.
- Do not move the injured unless there is an immediate life/threatening situation.
- All work related injuries or illnesses must be reported to Central Labs Directorate using the incident report form.



Emergency Resuscitation

DRSABCD action plan

D DANGER

Ensure the area is safe for yourself, others and the patient.

R RESPONSE

Check for response—ask name—squeeze shoulders

No response

- Send for help.

Response

- make comfortable
- check for injuries
- monitor response.



S SEND for help

Call UOS ambulance or ask another person to make the call.

A AIRWAY

Open mouth—if foreign material is present:

- place in the recovery position
- clear airway with fingers.

Open airway by tilting head with chin lift.



B BREATHING

Check for breathing—look, listen and feel.

Not normal breathing

- Start CPR.

Normal breathing

- place in recovery position
- monitor breathing
- manage injuries
- treat for shock.



C CPR

Start CPR—30 chest compressions : 2 breaths

Continue CPR until help arrives or patient recovers.



D DEFIBRILLATION

Apply defibrillator if available and follow voice prompts.

How to use Fire Extinguisher/Fire Blanket?

Fire Extinguisher:

It's easy to remember how to use a fire extinguisher if you can remember the acronym PASS, which stands for Pull, Aim, Squeeze, and Sweep.

P A S S



Pull the pin
in the handle



Aim the nozzle
at the base of
the fire



Squeeze the
lever slowly



Sweep from
Side to Side

Fire blanket:

For a substances in Flames



For a person in Flames



Eye Wash and Emergency Shower Stations

Why it is important?!

- The first 10 to 15 seconds after exposure to a hazardous substance, especially a corrosive substance, are critical. Delaying treatment, even for a few seconds, may cause serious injury.
- It provides on/the/spot decontamination. They allow personnel to flush away hazardous substances that can cause injury.
- Emergency showers can also be used effectively in extinguishing clothing fires.

How to use the emergency eye wash?

Use the emergency eye wash immediately if your eyes are exposed to a hazardous chemical.

1. Turn on eyewash using push/lever
2. Flush eyes for at least 15 minutes.
3. Keep the eyes open and rotate the eyeballs in all directions to remove contamination from around the eyes. An injured person may need help holding the eyelids open.
4. Seek medical help immediately.
5. Report the incident immediately to CL safety office.



How to use the emergency shower?

Use an emergency shower immediately if your skin is exposed to a hazardous chemical.

1. Turn on the shower by pulling the handle down.
2. Immediately flush the affected area under running water for at least 15 minutes.
3. Remove contaminated clothing, jewelry, and shoes. Do not let modesty slow you down. Every second counts. Use a clean lab coat to provide the victim with privacy.
4. Seek medical help immediately.
5. Report the incident immediately to CL safety office.



Note:











Drains are rarely designed into floor plans to accommodate emergency shower and eye wash stations. Never let that stop you from using the equipment if needed. Call cleaning service provider as soon as possible to wipe the floor where drains are not installed.



Revision History

Revision	Date	Description	Prepared by	Reviewed & Approved by
00	Nov/2016	First Issue (Emergency Response Guide)	Central Labs Directorate	Director, Central Labs Directorate
01	Sep/2019	Reviewing the whole booklet and adding new sections	Central Labs Directorate	Laboratory Safety Committee

UOS Emergency Numbers

	UOS Security	<ul style="list-style-type: none"> • 050 586 8063 (24h) • Ext No. 3024
	Civil Defense	<ul style="list-style-type: none"> • 997
	University City Ambulance	<ul style="list-style-type: none"> • 050 527 2233 (Women) • 050 161 9365 (Men)
	(Health Authority – Abu Dhabi) HAAD Poison and Drug Information Center/ Abu Dhabi	<ul style="list-style-type: none"> • 800 424 (from 7:00 am/ 3:00 pm, Sunday – Thursday)
	Facilities Management & Planning Department	<ul style="list-style-type: none"> • Extension No. 5555 or 06 505 1555 • Eng. Arun: 0554627298 for W12&M12 Buildings • Eng. Murugesh: 0505878748 for Medical campus • Eng. Farooq: 0507685333, Head of Facilities Management
	Central Labs Safety officers	<ul style="list-style-type: none"> • Ahmed: 3428, 050 105 6540 • Rizwan: 3416, 055 708 9239
	UoS Radiation Protection Officer	<ul style="list-style-type: none"> • Osama Taqatqa; 2448, 0526235966
	CL Maintenance Engineer	<ul style="list-style-type: none"> • Sancho: 3488, 050 885 0246
	CL Gas Technician	<ul style="list-style-type: none"> • Ramadan: 3458, 050 762 6469
	University City Police	<ul style="list-style-type: none"> • 06 505 9555 / 999

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