

EMERGENCY PREPAREDNESS

Introduction

The following sections provide general safety guidelines and procedures for emergency preparedness. This chapter covers the following topics:

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Elements of Emergency Preparedness

An emergency consists of any situation that poses immediate and extreme danger to people, property, or process. Because most emergencies are sudden, severe, and unexpected, it is extremely important to be prepared for a possible emergency. Proper preparation helps ensure safety and survival. A written emergency response or action plan is the best preparation tool for handling emergencies.

To ensure effectiveness, the Environmental Health and Safety Office will review and update emergency response plans regularly. Make sure that each response plan includes the following information:

- Procedure for sounding alarms.
- Emergency escape procedures and escape route assignments.
- Emergency procedures for employees with special needs.
- Rescue and medical assistance requirements.
- Names of persons or departments to contact for more information on handling emergencies.
- Method for reporting emergencies.
- Provision for training emergency procedures.

Responding to Emergencies

Regardless of the type of emergency in progress, you may dial the UTA Police Department emergency number ext. 3003 and/or sound the fire alarm immediately. In addition, you may contact the City of Arlington emergency dispatcher by dialing 9-911. Remain calm, notify others,

and respond to the emergency as appropriate. Do not attempt to handle any emergency situation in which you do not have training (e.g., fire fighting, first aid, spill response, etc.).

IMPORTANT:

Dial ext. 3003 and/or pull the fire alarm whenever a situation poses immediate danger to people, property, or process.

When you call to report an emergency, provide the operator with the following information:

- Building or area name
- Location
- Brief description of the emergency
- Your name

The following sections offer specific safety guidelines and procedures for handling different types of emergencies.

Bomb Threats

Bomb threats and other threats of violence are serious emergencies that require prompt attention. Although bomb threats are rare, they are most likely to occur during final exams. The following sections offer guidance for handling bomb threats.

How to Handle a Threatening Phone Call

If you receive a bomb threat over the phone, remain calm and act courteous. If feasible, notify another person to listen on another extension. Take notes on the caller's threat, tone, voice characteristics, and background noise. If the caller seems talkative, ask questions such as the following:

- When will the bomb go off?
- How much time remains?
- Where is the bomb located?
- What kind of bomb is it?
- How do you know about this bomb?
- What is your name?
- Do you know there are people in the building who could be hurt or killed?

IMPORTANT:

If you receive a threatening phone call, remain calm and take notes. Try to find out as much as possible about the caller and threat.

interviewing the person who received the bomb threat, the UPD determines if the threat appears to be a hoax or an actual emergency.

The UPD has the authority to evacuate a building if circumstances warrant this precaution. If the UPD determines that the bomb threat is a hoax, the building proctor may still evacuate the building at his/her discretion.

Building evacuations may be conducted by sounding the fire alarm. If a fire alarm is used in response to a bomb threat, the UPD will advise the Fire Department.

Handling Suspicious-Looking Items

If you locate a suspicious-looking item, do not handle the item. Clear the area of personnel and notify the UPD immediately. The UPD will wrap the item in a bomb blanket and the Arlington Fire Department will x-ray the item. If necessary, the UPD will call the Bomb Demolition Squad for assistance.

Bomb Threat Observations

For most bomb threats, the caller announces that a bomb is set to go off at a certain time and then hangs up. Because routine bomb threat evacuations may spawn numerous hoax calls, consider the following:

Most intended explosions have no warning. Usually, after the bomb is detonated, a party claims credit and then explains why the bomb was set. In cases where an actual device is located, the caller usually provides specific information for finding the device before the detonation time.

With few exceptions, bomb threats on campus are hoaxes designed to avoid or postpone an unpleasant task (e.g., exam).

University policy is to use restraint from evacuating buildings based on the following:

A bomb that is set to detonate at a certain time is either a timed explosive device or a site-activated device. Both devices require considerable expertise to develop. Furthermore, a site activated device, such as a radio-controlled mechanism, must be activated in close proximity of the bomb.

Unless a bomb contains a large amount of volatile explosive (e.g., C-4 plastic), damage will be limited to the immediate area of the detonation.

Emergency Power

Some buildings on campus provide automatic emergency power during electrical outages. The emergency power only supports essential life safety equipment such as elevators,

corridor lighting, fire alarms, and exit lighting. Some new buildings have red emergency power outlets for essential equipment and machinery. Contact the Physical Plant to determine if other emergency outlets are available in your work area.

There are three types of emergency power sources:

- Portable generators
- Building generators
- Battery power packs

Contact the Environmental Health & Safety Office for more information on emergency power.

Evacuation Plans

A written plan for emergencies and fire drills is essential for each major University building. Evacuation exercises are particularly important for student-residence facilities, high-rise buildings, patient treatment facilities, and daycare centers. Studies show that when occupants discuss, plan, implement, and practice evacuation plans, they are better able to protect themselves and others.

Developing a Plan

Each department or building proctor is responsible for developing a comprehensive plan for evacuations and fire drills. The best way to develop this plan is to form an implementation committee with members from each building floor and each department. The team should consider the following when developing the plan:

Contact the Environmental Health & Safety Office for assistance in developing an evacuation plan for your building.

Building evacuation routes or maps should provide an accurate layout of the building and multiple exit routes from any location. These plans must be posted in prominently traveled areas (e.g., hallways, stairwells, dorm rooms, etc.). Unusual building layouts require more evacuation maps to be posted.

Special attention must be given to evacuation procedures for the physically challenged. Even if no known building occupants have special needs, the evacuation plan must contain these provisions to ensure the safety of visitors or others with special needs.

A preplanned meeting place for evacuated occupants should be at least 200 feet from the building and clear of fire hydrants and access roads.

Certain people on each floor (floor proctors) should be responsible for the following:

- Ensuring that persons on the floor are aware of an emergency and the need to

evacuate.

Ensuring that building evacuation routes are clearly posted in prominently traveled areas.

Ensuring that new employees are familiar with evacuation and fire drill procedures.

Conducting Fire Drills and Evacuations

To ensure that building occupants are prepared for an emergency evacuation, fire drills may be conducted every semester. A safe and orderly evacuation is more important than a quick evacuation.

Before conducting a practice fire drill, do the following:

1. Contact the Environmental Health & Safety Office one week in advance so they may assist you with the drill.
2. Notify the UPD Dispatcher so they do not contact the local fire department.
3. Notify Physical Plant at least one week in advance.

Practice fire drills should proceed as follows:

1. Fire drills should involve all occupants. Everyone should leave the building when the fire alarm sounds. A person may be exempt from a fire drill if it will cause undue hardship (e.g., interrupt an experiment); however, exemptions are strongly discouraged.
2. Occupants should close (not lock) doors as they leave the work area. Items that require security may be placed in a locking file cabinet or desk drawer on the way out.
3. Floor proctors should check all rooms and close doors on their way out.
4. All building occupants should gather in the preplanned meeting place.
5. Floor proctors should take a "head count" to determine if all occupants have left the building.
6. Upon completion of the drill, the building proctor completes a Fire Drill Checklist and forwards it to the Environmental Health & Safety Office (Box 19257)

First Aid

First aid training is necessary to prevent and treat sudden illness or accidental injury. The primary objective of first aid is to save lives. This objective is achieved with the following:

Preventing heavy blood loss

Maintaining breathing

Preventing further injury

Preventing shock

Getting the victim to a physician or Emergency Medical Service (EMS)

People who provide first aid must remember the following:

Avoid panic.

Inspire confidence.

Do only what is necessary until professional help is obtained.

The following sections provide general information for handling common injuries and illnesses.

Initial First Aid

If you are the first one on the scene of a medical emergency, your first priority is to remain calm. Your action will vary depending upon the nature of the situation, but the following four rules apply to any medical emergency:

1. Assess the Situation:
 - Can you safely approach the victim?
 - If not, what can you do to help without threatening your own safety?
 - Determine what is wrong with the victim.
2. Set Priorities:
 - Is the victim conscious?
 - How serious is the emergency?
 - Can someone else call EMS, if necessary?
 - If no one else is available, decide if it is more important to administer first aid immediately or to call EMS and leave the victim unattended.

NOTE:

Never leave a victim in a life-threatening situation without first trying to help.

3. Check the ABCs (unconscious victims only):
 - A Airway
 - Place the victim on his/her back. Place one hand on the forehead and one hand under the chin and tilt the head back.

NOTE: Never move a victim if you suspect back or neck injury.

Open the victim's mouth and check for obstructions. If the victim is unconscious and an obstruction is visible, remove it with your fingers.

- B. Breathing
 - Place your ear above the victim's mouth and look at the chest. Listen for breathing and look for the rise and fall of the chest. If the victim is not breathing, someone formally trained in mouth-to-mouth breathing should begin resuscitation.
- C. Circulation
 - Using two fingers, gently feel for the carotid artery in the neck and check

the pulse. To find the artery, place your fingers on the victim's Adam's apple and then slide them down the side of the neck until you feel the groove between the windpipe and neck muscles. If there is no pulse, someone formally trained in CPR should begin cardiopulmonary resuscitation.

4. Administer first aid and/or call EMS, as appropriate.

Bleeding (External)

Most bleeding injuries are minor; however, heavy external bleeding can cause death in three to five minutes.

In addition to the procedures for initial first aid, follow these steps for external bleeding:

1. Using a sterile dressing, clean cloth, or other material, apply pressure directly over the wound.

IMPORTANT:

Direct contact with a victim's blood may expose you to various communicable diseases. Always wear plastic gloves when assisting a bleeding victim.

2. If possible, elevate the bleeding area. Otherwise, lay the victim flat, and elevate the legs.
3. Keep the victim lying down.
4. Treat the victim for shock, if necessary.
5. Do not release pressure or lift the bandage until you are sure the bleeding has stopped.
6. Have someone call EMS, if necessary.

IMPORTANT:

Do not use a tourniquet unless an arm or leg has been amputated.

NOTE:

For deep chest wounds, use a heavy dressing to keep air from passing through the wound. For gaping stomach wounds, use a damp dressing; do not move or try to replace protruding organs.

Burns

Thermal and chemical burns require immediate attention. In addition to the procedures for initial first aid, follow these steps for thermal burns:

For first and second degree burns:

1. Immerse the burned area in cold water or apply ice packs to the affected area.
2. Cover the burned area with a clean cloth.
3. Treat the victim for shock, if necessary.
4. Do not apply butter, oil, or cream to a burn.

For serious burns (e.g., large area burns and charred skin):

1. Remove clothing from the injured area. Cut around clothing that adheres to the skin.
2. Place an approved burn blanket or the cleanest available cloth over the entire burn area.
3. Treat the victim for shock.
4. If the victim is conscious, provide nonalcoholic fluids.
5. Call EMS as soon as possible.

Cardio-Pulmonary Resuscitation (CPR)

When a person stops breathing, immediate assistance is necessary. If the person stops breathing due to choking, follow the first aid instructions for choking victims. If the person stops breathing due to a hazardous atmosphere, move the victim to fresh air immediately.

IMPORTANT:

Always wear personal protective equipment when entering hazardous atmospheres. Do not attempt a rescue without adequate protection or proper training.

NOTE:

Someone formally trained in CPR should provide assistance to victims who are not breathing and victims who do not have a pulse.

1. Try to arouse the victim.
2. Place the victim on his back. Open the victim's airway by placing one hand on the forehead and one hand under the chin and tilting the head back. Check for any obstructions in the mouth or throat.
3. Look, listen, and feel for breathing.
4. If the victim is not breathing, pinch the victim's nose closed and use a mouth-to-mouth breathing tube to give two slow, deep breaths.

5. Check the carotid pulse and look, listen, and feel for breathing. If a pulse is present but the victim does not start breathing, continue rescue breathing as follows:

Adult: one breath every five seconds

Child: one breath every four seconds

Infant: one breath every three seconds

If a pulse is not present, have someone formally trained in CPR begin mouth-to-mouth breathing and chest compressions as follows:

Adult: 15 compressions using heel of hand / one breath

Child: Five compressions using heel of hand / one breath

Infant: Five compressions using two fingers / one breath

Continue this procedure until the victim starts breathing or EMS arrives.

Chemical Splashes

Chemical splashes on the skin require immediate attention. Follow these steps:

1. Go to emergency shower or sink.
2. Remove contaminated clothing.
3. Wash area with water thoroughly for 15 minutes.
4. Seek medical attention.

Choking

Choking victims cannot speak, breathe, or cough forcefully. Follow these steps for conscious choking victims:

1. Ask the victim if he is choking. If the victim indicates yes, begin the Heimlich Maneuver, as outlined below.
2. Get behind the victim and make a fist with one hand. Grasp your fist with the other hand and place your hands slightly above the victim's navel.
3. Give quick, upward thrusts backwards until the object is expelled or the victim loses consciousness.

IMPORTANT:

For pregnant or obese victims, use a chest thrust. Place your fist on the sternum, and thrust backwards repeatedly.

Follow these steps for unconscious choking victims:

1. Call EMS.
2. Place the victim on his back. Open the victim's airway by placing one hand on the forehead and one hand under the chin and tilting the head back. Check for any obstructions in the mouth or throat.
3. Attempt mouth-to-mouth rescue breathing.
4. If the airway remains blocked, place the heel of your hand slightly below the victim's ribs. Give six to ten abdominal thrusts.

IMPORTANT:

For pregnant or obese victims, use a chest thrust. Place your fist on the sternum, and thrust backwards repeatedly.

5. Sweep the mouth to remove any dislodged objects and attempt mouth-to-mouth rescue breathing again.

Continue this procedure until the object is dislodged or the victim starts breathing.

Eye Injury

If hazardous liquid, particles, or gas irritate a person's eye, have the victim flush the eye with water for at least 15 minutes. Use an eye wash station, sink, or water fountain. Seek assistance from a physician, as necessary.

If a foreign object (e.g., glass, pencil lead, etc.) is embedded in the eye, place a plastic cup or gauze over the affected eye. This will keep the eye from moving and inflicting further damage. Seek assistance from a physician immediately.

Insect Bites

Contact EMS or a physician whenever someone suffers multiple stings (or suffers adverse effects from a single sting) from wasps, bees, fire ants, or other stinging insects.

For a single insect sting, remove the stinger by scraping the skin. Do not use tweezers or your fingers to remove a stinger.

Removing a stinger in this manner may release more venom.

People who are extremely allergic to certain insect bites should carry appropriate medication and inform others of their allergy.

Poisoning

Since there are many poisons that react differently to various treatments, this section only

covers the most basic first aid. If you suspect a victim has been poisoned through ingestion, inhalation, or skin exposure, try to determine what the poisoning agent is. Contact EMS or the Poison Control Center for specific first aid instructions.

Seizures

Do not try to restrain seizure victims. Remove any objects that could harm the victim, and wait for the seizure to end. Contact EMS if this is the victim's first seizure, the seizure is exceedingly violent, or lasts for a long time.

NOTE:

Do not place anything in a seizure victim's mouth.

Shock

Shock commonly accompanies severe injury or emotional upset. Symptoms of shock include the following:

- Cold, clammy skin
- Pale skin tone
- Shallow breathing
- Chills

Follow these steps to assist shock victims:

1. Call EMS.
2. Keep the victim lying down.
3. Maintain an open airway. If the victim vomits, turn the head sideways and the chin downward.
4. Elevate the victim's legs.
5. Keep the victim warm.
6. Reassure the victim.

Snake Bites

Most snake bites are not fatal. If a snake bite occurs, follow these steps:

1. Have the victim move as little as possible.
2. Apply a constricting bandage (not a tourniquet) between the wound and the heart.
3. If possible, call EMS. In rural locations, transport the victim to the nearest hospital immediately. If necessary and possible, carry the victim to transportation. Do not let the victim walk.
4. If you cannot obtain medical attention:

Do not make any incisions or suck out the poison.
Do not cool the bitten area.
Every fifteen minutes, loosen the constricting bandage for a few seconds and then reapply it.

Spill Response

Shops, labs, and areas with hazardous chemicals should have spill clean-up supplies on hand. Call UPD emergency ext. 3003 and/or the Environmental Health & Safety Office ext. 2185 to report potential hazards from oil spills, fuel spills, chemical spills and other spills. The Environmental Health & Safety Office has a Chemical Spill Response Team that is equipped and trained to handle spills.

See the Laboratory Safety Manual for more information on chemical or biological response procedures.

Weather Emergencies

Weather emergency concerns primarily include high winds, heavy rains, lightning, and tornadoes. The following sections provide general guidelines for handling various weather emergencies.

Heavy Rain/High Winds

Heavy rain and high winds provide dangerous driving conditions. Motorists should be aware of local weather conditions and avoid roads that tend to flood in heavy rains.

IMPORTANT:

Do not drive in flooded areas or attempt to cross moving water in an automobile. Moving water can easily capsize a car or truck and drown the victim. Avoid creeks, rivers, ditches, and flooded roads during heavy rains. Keep children from playing in these areas during inclement weather.

High winds can topple trees, outdoor equipment, and electrical lines. Avoid downed power lines and notify the utility company of power outages. If an electrical line falls across your car, do not move the car or try to get out. Stay where you are until help arrives.

Lightning

Lightning is nature's worst destroyer. A typical lightning bolt contains several hundred million volts at 30,000 or more amperes.

Lightning need not strike a person directly to be dangerous.
Lightning can crash down from virtually clear sky.
Stay away from open doors or windows during an electrical storm.

Avoid using the telephone or television set and keep clear of all metal object such as pipes and electrical appliances during a storm.

Do not go outside.

If you find yourself caught in a storm away from a protected building:

Avoid tree lines.

Stay away from unprotected storm shelters.

Stay away from flag poles, towers, and metal fences.

Do not wade, swim, or go boating in a thunderstorm.

A closed automobile provides a protective metal shell.

If caught in the open, stay low.

Tornado

Tornadoes produce violent winds that can damage homes, vehicles, people, and wildlife. The primary dangers associated with tornadoes are high winds and flying debris. Severe thunderstorms and hail commonly precede a tornado. A dark funnel cloud or roaring noise (like a train) is evidence of an actual tornado.

A tornado watch is issued when weather conditions are ideal for a tornado to form. A tornado warning is issued when a tornado is actually identified in the immediate vicinity.

If a tornado warning is issued, seek shelter immediately. Stay away from windows, doors, and outside walls.

Do not drive to shelter, unless you are already in a vehicle when the warning is issued. Drive to the nearest building or seek shelter in a ditch or ravine.

Never try to outrun a tornado in your vehicle.

If you are in a school, hospital, factory, shopping mall, or other public area, go to the designated shelter area. Interior halls on the lowest floors are usually best.

If you are at a home or in a building, go to an interior room on the lowest level (e.g., bathroom, closet, hall, etc.). Get under a piece of sturdy furniture if possible.

Winter Weather

Wear appropriate clothing for local weather conditions and keep your vehicle in good working order. If the roads become slick with ice, use extreme caution or avoid driving.

Slippery streets increase stopping distances. Drive slowly in winter weather.

Choose shoes that provide the best footing for the weather.

Clear walkways and steps of snow and ice.

Use handrails where available.

Clean snow and ice from all vehicle windows.