

Colleges of the Fenway (COF) Community Emergency Response Team (CERT) Handbook

Fall 2022

This Handbook belongs to: _____



Unit 1 – Disaster Preparedness (1/2)

Unit 1 Objectives

- Describe the functions of CERT, discuss your role as a CERT volunteer, and explain how CERT fits into your community's emergency preparedness structure.
- Describe the types of hazards most likely to affect your communities and their potential impact on people, health, and infrastructure.
- Prepare yourself and your family for potential disasters your community may face, including learning to create a family disaster plan and emergency preparedness kit.

Topics

Community

- Key priority in lessening the impact of disasters
- Critical that all community members take steps to prepare
- Effective when addresses unique attributes of community

Engage the Public

- Learn about community alerts, warnings, and evacuation routes
- Take training Practice skills and personal plans
- Network and help others
- Provide feedback to community

Types of Disasters

- Natural (e.g., earthquakes,, floods, extreme heat, hurricanes, landslides, thunderstorms, tornadoes, winter storms)
- Technological & Accidental (e.g., hazardous material spill, nuclear power plant accident)
- Terrorism (e.g., chemical, biological, radiological, nuclear, explosive weapons)

Preparing for a Disaster

- Have the skills to evaluate the situation quickly and take effective action to protect yourself
- Assemble supplies in multiple locations
- Reduce the impact of hazards through mitigation practices

Takeaway Tips

In Boston, Massachusetts, there are several types of natural disasters that may occur. Below are helpful links for building situational awareness:

- **WINTER WEATHER:** [National Weather Service Winter Monitor](#)
- **HEAT:** [National Weather Service Heat Index Forecast](#)
- **FLOODING:** [United States Geographical Survey National Water Information System River Gage Monitoring for Massachusetts](#)
- **THUNDERSTORMS:** [National Weather Service Storm Prediction Center](#)
- **POWER OUTAGE:** [Massachusetts Emergency Management Agency Power Outage Map](#)
- **HURRICANE:** [National Hurricane Center](#)
- **TRANSPORTATION:** [MBTA Alerts](#)
- **GENERAL:** [Massachusetts Emergency Management Agency Alerts](#)

Unit 1 – Disaster Preparedness (2/2)

Additional Information

CERTs respond post-disaster by:

- Treating life-threatening injuries until professional assistance is available
- Helping disaster survivors cope with their emotional stressors
- Locating and turning off utilities, if safe to do so
- Extinguishing small fires
- Conducting light search and rescue operations

Topics

Structural Mitigation

- Bolt houses to foundations
- Install trusses or hurricane straps to reinforce roof
- Strap propane tanks and chimneys
- Strap mobile homes to their slabs
- Raise utilities
- Build a safe room

Proactive Actions

- Assess situation
- Decide to stay or change locations
- Seek clean air and protect breathing passages
- Protect from debris and signal if trapped
- Practice good hygiene

Disaster Supply Kit

- After disaster strikes, you will not have time to shop or search for supplies
- If you gather supplies in advance, you and your family will be better equipped for an evacuation or home confinement
- Many of the items needed for your kits are already in your household

Non-Disaster Roles

- Identify and aid neighbors/coworkers who might need assistance
- Distribute preparedness materials; do demos
- Staff first aid booths at special events
- Assist with installation of smoke alarms

Takeaway Tips

Here is a simple checklist for basic items needed in your CERT bag. Use it to track your items as you acquire them:



| Item | Backpack | Helmet | Goggles | N95 Mask | Gloves | Boots | Radio | Flashlight |
|-----------|----------|--------|---------|----------|--------|-------|-------|------------|
| Have/Need | | | | | | | | |

Unit 2 – CERT Organization (1/2)

Unit 2 Objectives

- Describe the CERT organizational structure.
- Explain the Incident Command System (ICS) and how CERT operates within this structure.
- Describe the 9-step one-scene size-up process.
- Describe how to use CERT standard documents.

Topics

CERT on-Scene Management

- Well-defined management structure
- Manageable span of control
- Common terminology
- Effective communication
- Comprehensive resource management
- Accountability

CERT Operations

- Command structure
- CERT Team Leader
- Command Post
- Expanded structure as needed

Dealing with Media

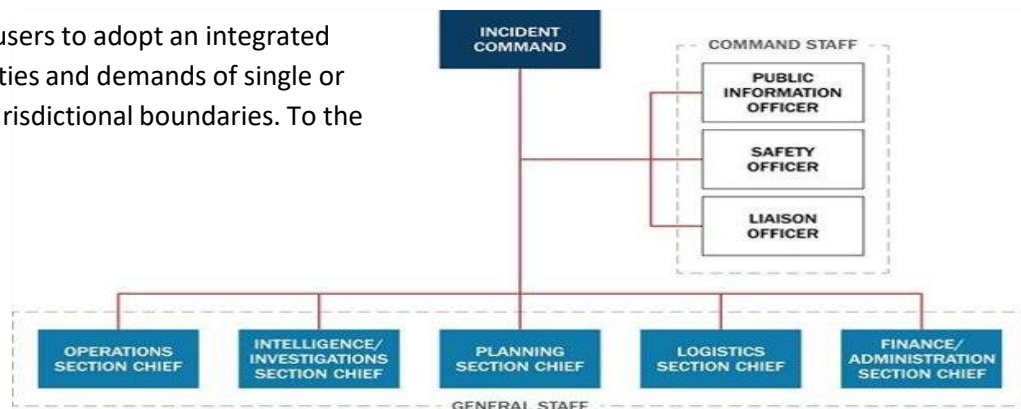
- Refer media inquiries to CERT Incident Commander /Team Leader
- Do not let media inhibit CERT goals
- Be careful about information released

CERT Mobilization

- CERTs take care of themselves, their families, their homes, their neighbors
- Proceed to predesignated staging area
- TL is established, organizes the group
- Organization is flexible and evolves based on new information

Takeaway Tips

The Incident Command System (ICS) allows its users to adopt an integrated organizational structure to match the complexities and demands of single or multiple incidents without being hindered by jurisdictional boundaries. To the right is an example of an ICS structure:



Unit 2 – CERT Organization (2/2)

Additional Information

- ICS provides flexible means of organization.
- Ask “Is it safe to attempt the rescue?”
- Document and communicate information to all CERT levels.
- Provide Command Post with ongoing information about damage assessment, group status, and needs.
- Command Post documents and tracks situation status .

Topics

NIMS Implementation

- Ability to work together
- IS-100: Introduction to ICS
- <https://emilms.fema.gov/IS100c/curriculum/1.html>
- IS-700: Introduction to NIMS
- <https://emilms.fema.gov/IS700b/curriculum/1.html>

Rescuer Safety

- **Rescuer safety** = first priority
- **Heavy damage** = No rescue
- **Moderate damage** = Locate, assess, evacuate
- **Light damage** = Locate, assess, continue size-up, and document

CERT Documentation

- Command Post
- Documents
- situation status
- Incident locations
- Access routes
- Identified hazards
- Support locations

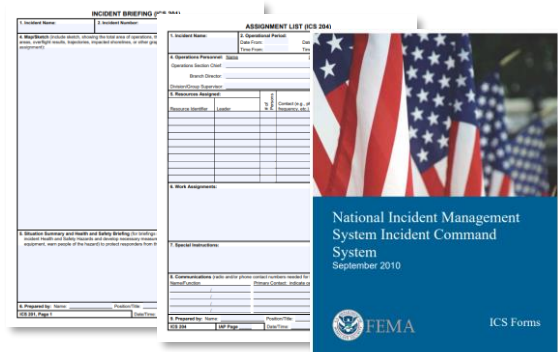
Documentation Forms

- Damage Assessment
- Personnel Resources Sign-In
- CERT Assignment Tracking Log
- Briefing Assignment
- Treatment Area Record
- Communications Log
- Equipment Inventory

Takeaway Tips

FEMA has several ICS forms available on its website. Below are a few that may be requested during an activation:

- All documents: <https://training.fema.gov/icsresource/icsforms.aspx>
- [ICS Forms - Instructions \(v3\).pdf](#)
- [NIMS ICS Forms Booklet \(v3\).pdf](#)
- [ICS Form 201, Incident Briefing \(v3\).pdf](#)
- [ICS Form 204, Assignment List \(v3.1\).pdf](#)
- [ICS Form 209, Incident Status Summary \(v3\).pdf](#)
- [ICS Form 215, Operational Planning Worksheet \(v3\).pdf](#)



Unit 3 – Disaster Medical Operations Part 1 (1/2)

Unit 3 Objectives

- Identify life-threatening conditions resulting from trauma including severe bleeding, low body temperature, and airway blockage.
- Apply correct life-saving techniques.
- Provide basic first-aid care for non-life-threatening injuries.

Topics

Safety Considerations

- Prior to treatment, ensure that both the patient and rescuer are in a safe environment to administer care
- 1) Do I feel safe at this spot?
- 2) Should I leave and move to a safer location, or am I able to stay and start providing care immediately?
- 3) If I leave, can I take anyone with me?

Approach the Patient

- Be sure patient can see you
- Identify yourself
- Your name and name of your organization
- Request permission to treat, if possible
- Protect patient privacy

Types of Bleeding

- **Arterial bleeding:** Arteries transport blood under high pressure
- **Venous bleeding:** Veins transport blood under low pressure
- **Capillary bleeding:** Capillaries also carry blood under low pressure

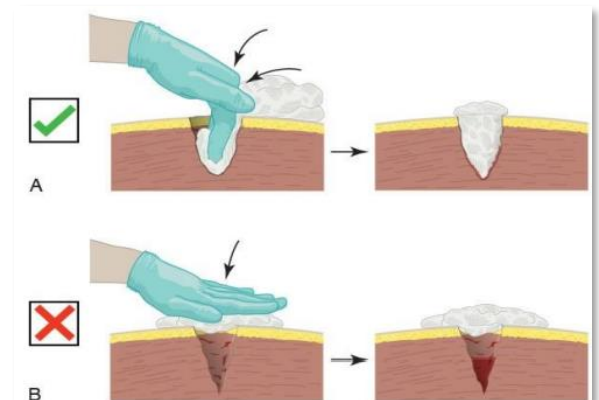
Controlling Bleeding: Direct Pressure

- **Step 1:** Find the source(s)
- **Step 2:** Cover the source
- **Step 3:** Apply pressure
- **Step 4:** Maintain pressure until bleeding has stopped

Takeaway Tips

Remember the ABC of Stop the Bleed:

- **A - Alert** Emergency Personnel - Call 9-1-1
- **B - Bleeding** - Locate the bleeding injury
 - Look for continuous bleeding, large volume bleeding, and pooling of blood
- **C - Compress** - Apply pressure and compression to stop the bleeding



Unit 3 – Disaster Medical Operations Part 1 (2/2)

Additional Information

Other injuries that are common after disasters:

- Burns
- Wounds , Amputations and impaled objects
- Fractures, dislocations, sprains, and strains
- Cold-related injuries
- Heat-related injuries and insect bites

Topics

Controlling Bleeding: Tourniquets

- Place on injured limb as high as possible
- Pull strap through buckle
- Twist rod until bleeding stops/slows
- Secure the rod
- If bleeding continues, place second tourniquet
- Leave in place until EMS takes over

Positioning a Conscious Patient

- **When sitting on a raised platform**(e.g., chair, bench): Legs shoulder width apart, elbows or hands on knees, and leaning slightly forward
- **When standing:** Legs shoulder width apart, hands on knees arms straight, and leaning forward with flat back

Recovery Position

- **Body:** Laid on its side
- **Bottom Arm:** Reached outward
- **Top Arm:** Rest hand on bicep of bottom arm
- **Head:** Rest on hand
- **Legs:** Bent slightly
- **Chin:** Raised forward
- **Mouth:** Pointed downward

Shock Symptom & Diagnosis

- Shock is often difficult to diagnose
- Main signs of shock:
 - 1)Rapid and shallow breathing
 - 2) Capillary refill of greater than two seconds
 - 3) Failure to follow simple commands, such as “squeeze my hand”
- Symptoms of shock are easily missed. Pay careful attention to your patient

Takeaway Tips

How to place a tourniquet



How to placing someone in a recovery position



How to treat someone for shock



Unit 4 – Disaster Medical Operations Part 2 (1/2)

Unit 4 Objectives

- Explain the role of the CERT volunteer during a mass casualty incident.
- Describe the functions of disaster medical operations.
- Describe how to set up survivor treatment areas.
- Perform head-to-toe patient assessments.
- Take appropriate sanitation and hygiene measures to protect public health.

Topics

Role of First Responders

- Establish command and control of the incident area
- Conduct a scene size-up and set-up
- Send survivors with relatively minor injuries to a holding area to await treatment
- Identify survivors who require life-saving interventions and treat them immediately

Mass Casualty Incidents

- Incidents in which the number of casualties overwhelms the local resources:
 - Commuter train derailment
 - Multi-car accident
 - Bus accident
 - Building collapse
 - Natural disasters (e.g., tornadoes)

Role of CERT Volunteers

- Put on PPE and any CERT affiliated gear
- Locate the nearest first responder and identify yourself/give them your local agency affiliation
- If a first responder is not available, assess the situation and determine whether you can provide life-saving interventions

CERT Size Up

- Gather Facts
- Assess Damage
- Consider Probabilities
- Assess Your Situation
- Establish Priorities
- Make Decisions
- Develop a Plan of Action

Takeaway Tips

There are nine steps to a CERT size up of a scene, but below is the simplified 5 step process:

1. **F**act (Gather facts)
2. **A**nticipate (Consider facts, guess future)
3. **P**lan (“Direction before velocity”)
4. **A**ct (Less talking, more doing)
5. **R**eview (Continuously re-evaluate)



Unit 4 – Disaster Medical Operations Part 2 (2/2)

Additional Information

During a mass casualty incident, CERT volunteers should:

- Identify self as CERT volunteer and give agency affiliation
- Assess and provide life-saving interventions
- Provide responders with detailed information
- Communication is key

Topics

Maintain Hygiene

- Wash hands frequently or use alcohol-based hand sanitizer
- Wear non-latex exam gloves
- Keep dressings sterile
- Wash areas that come in contact with body fluids

Closed-Headed Neck, Spinal Injuries

- If injuries to the head or spine are suspected, **do no harm**
- Minimize movement of head and neck while treating life-threatening conditions
- If survivors exhibit signs or are found under heavy debris, treat them as having a closed-head, neck, or spinal injury

Public Health Considerations

- Maintaining proper hygiene
- Maintaining proper sanitation
- Purifying water (if necessary)
- Preventing spread of disease

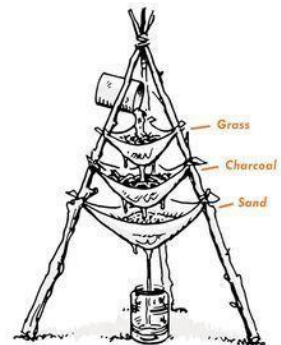
Water Purification

- Boil water for 1 minute
- Water purification tablets
- Non-perfumed liquid bleach
- 8 drops/gal of water
- 16 drops/gal if water is cloudy
- Let stand for 30 minutes before using

Takeaway Tips

Water purification in the wild:

- Boil unclean water and allow the sediment to fall as it cools
- Purchase of water purification tablets that can be used as directed, such as LifeStraw
- Gravity filters as shown to the left. A layer of grass, charcoal, and sand is required
- An evaporation trap, pulling moisture out of the earth by digging a hole in the ground and inserting a container at the bottom



Unit 5 – Disaster Psychology (1/2)

Unit 5 Objectives

- Understand disaster trauma for survivors and rescuers, including CERT volunteers.
- List steps to take for personal and team well-being.
- Demonstrate key steps to apply when providing aid to someone with survivor's trauma.

Topics

Cause of Disaster Reactions

- Dealing with your own personal losses
- Working in your neighborhood
- Assisting neighbors, friends, or coworkers who have also been injured
- Feeling unsafe and insecure

The Five F's

- **Freeze:** "Stop, look, and listen," or be on guard and watchful
- **Flight:** Flee
- **Fight:** Attempt to combat the threat
- **Fright:** Tonic immobility when in contact with a predator, or playing dead
- **Faint:** Fear-induced fainting

Team Well-Being

- Actions can be taken before, during, and after an incident to help manage emotional impact of disaster response work
- Knowing possible psychological and physiological symptoms of disaster trauma helps manage impact

Reduce Stress

- Get enough sleep
- Exercise regularly
- Eat a balanced diet
- Balance work, play, and rest
- Allow yourself to receive as well as give
- Connect with others
- Use spiritual resources

Takeaway Tips

Active listening skills:



1. PAY ATTENTION.



2. WITHHOLD JUDGEMENT.



3. REFLECT.



4. CLARIFY.



5. SUMMARIZE.



6. SHARE.

Unit 5 – Disaster Psychology (2/2)

Additional Information

- Prepare yourself, as rescues may be unpleasant and uncomfortable.
- Know the psychological and physiological symptoms of trauma.
- Understand the six emotional phases of a disaster.
- Take steps to reduce stress, which affects cognition, health, and interactions.
- Stabilize individuals.

Topics

Physical Symptoms of Trauma

- Loss of appetite
- Headaches or chest pain
- Diarrhea, stomach pain, or nausea
- Hyperactivity
- Increase in drug consumption
- Nightmares

Take Care of Yourself

- Be aware of trauma that can follow a disaster
- Explain to family members and friends what you need:
 - 1) Listen when you want to talk
 - 2) Don't force yourself to talk until you are ready

Emotional Phases of a Crisis

- Pre-Disaster
- Impact
- Heroic
- Honeymoon
- Disillusionment
- Reconstruction

Stabilizing Survivors

- Assess survivors for injury or shock
- Get uninjured people to help
- Provide support by listening and empathizing
- Help survivors connect with natural support systems

Takeaway Tips

Interested in learning more about disaster mental health? Partake in the American Red Cross Psychological First Aid: Supporting Yourself and Others During COVID-19 Online Course. This online course offers further in-depth look at mental health during an active emergency, with skills that can be immediately utilized. Please register for the course here:

<https://www.redcross.org/take-a-class/coronavirus-information/psychological-first-aid-online-course>



American Red Cross
Training Services

Unit 6 – Fire & Safety and Utility Controls (1/2)

Unit 6 Objectives

- Explain the role CERTs play in fire safety and response, including the CERT size-up process and minimum safety precautions.
- Extinguish a small fire using a fire extinguisher.
- Identify and reduce potential fire, utility, and hazardous materials hazards at home and in the community.

Topics

Role of CERT

- CERTs play very important role in fire safety by:
 - Extinguishing small fires
 - Preventing additional fires by removing fuel sources
 - Shutting off utilities
 - Assisting with evacuations, when necessary

Classes of Fire

- **Class A:** Ordinary combustibles
- **Class B:** Flammable and combustible liquids
- **Class C:** Energized electrical equipment
- **Class D:** Combustible metals
- **Class K:** Cooking oils

Firefighting Resources

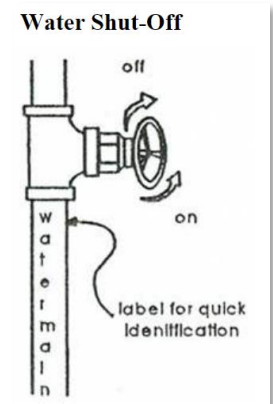
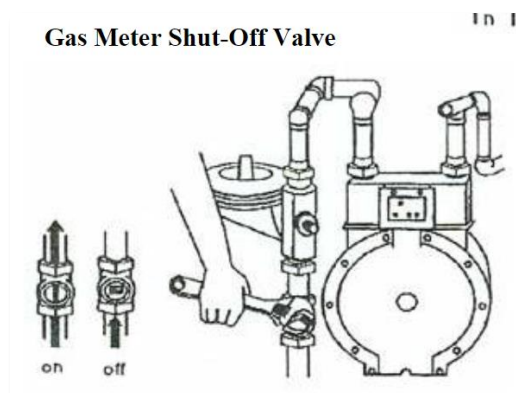
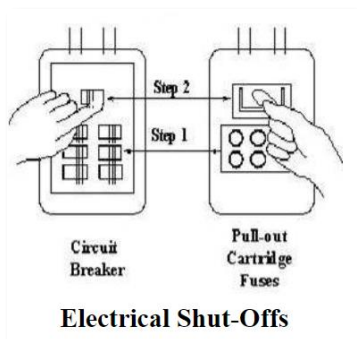
- Local fire department
- Fire alarm system
- Sprinkler systems
- Portable fire extinguishers
- Interior wet standpipes

Extinguisher Rating/Labeling

- Labels show types of fires for which that extinguisher is used
- Class A fire ratings: 1A to 40A
- Class B fire ratings: 1B to 640B
- Higher number on label = greater amount of extinguishing agent

Takeaway Tips

Utility shut-offs:



Unit 6 – Fire & Safety and Utility Controls (2/2)

Additional Information

Hazardous Materials Classification:

- Health Hazard – Blue
- Fire Hazard – Red
- Instability – Yellow
- Specific Hazard - White

Topics

Fire Suppression Must-Knows

- Keys to effective fire suppression
- Classes of fire and types of fire extinguishers
- P.A.S.S.
 - Pull the pin
 - Aim at the base of fire
 - Squeeze the lever
 - Sweep side to side
- How to identify hazardous materials

Electrical Emergencies

- Know where power shutoffs are:
 - Appliances
 - Circuit breakers
 - Fuses
- Post shutoff directions next to all utilities
- Know procedures for turning power back on after the fire

Hazardous Materials

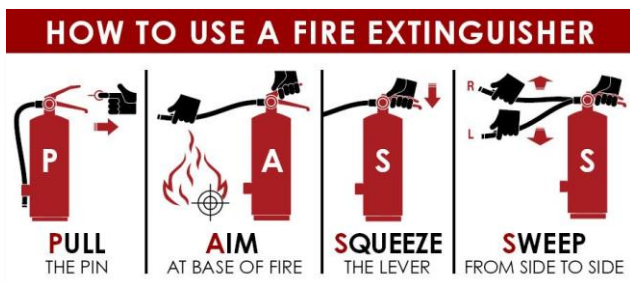
- Corrode other materials
- Explode or are easily ignited
- React strongly with water
- Are unstable when exposed to heat or shock
- Are otherwise toxic to humans, animals, or the environment through absorption, inhalation, or injection

The White Quadrant

- NFPA 704 Diamond White Quadrant:
- W: Shows unusual reactivity with water
- OX: Possesses oxidizing properties

Takeaway Tips

Learn how to use an extinguisher and the appropriate colors for HazMat warnings:



Unit 7 – Light Search and Rescue Operations

Unit 7 Objectives

- Identify and apply CERT size-up requirements for potential search and rescue situations.
- Demonstrate common techniques for light search and rescue.
- Demonstrate safe techniques for debris removal and survivor extraction during search and rescue operations.

Topics

Search and Rescue Size-Up

- Gather Facts
- Assess Damage
- Consider Probabilities
- Assess Your Situation
- Establish Priorities
- Make Decisions
- Develop Plan of Action
- Take Action
- Evaluate Progress

Interior & Exterior Search Operations

- Set distance between searchers according to visibility and debris
- Overlap patterns for full coverage
- Search in as straight a line as possible
- Mark areas that have been searched

Rescue Operations

- Remove objects and debris to free survivors and create safe rescue environment
- Assess survivors
- Remove survivors

Search Methodology

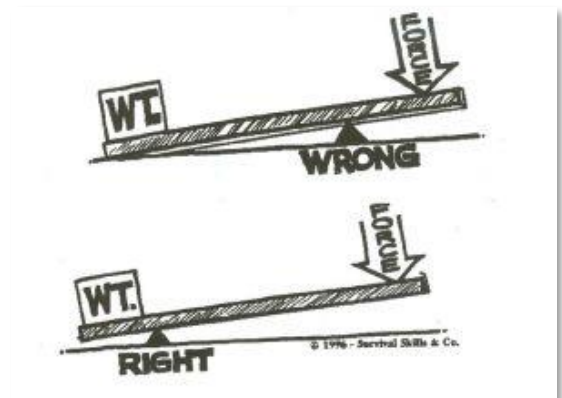
- Remain within arm's reach of one other CERT member
- Call out to survivors, "If anyone can hear my voice, come here"
- Ask any survivors who do respond for more information about the building or others who may be trapped
- Survivors might be in shock or confused

Takeaway Tips

How to lift debris from a victim via cribbing method



How to safely lift and move victims



Unit 8 – Terrorism

Unit 8 Objectives

- Define terrorism.
- List the eight signs of terrorism and describe how to report suspicious activity.
- Explain the role of a CERT volunteer during a terrorist incident.
- Describe activities to prepare for a terrorist incident at home, at work, and in the community.

Topics

Terrorism Goals

- Influence government policy and to achieve specific objectives
- Undermine the public's sense of safety and their confidence in the government
- Portray the government as ineffective, weak and/or otherwise incapable

Active Shooter

- 1.Run** - If there is an accessible escape path, attempt to evacuate the premises
- 2.Hide** - If evacuation is not possible, find a place to hide where the active shooter is less likely to find you
- 3. Fight** - If you are unable to run, evacuate or hide and when your life is in imminent danger, you may attempt to disrupt and/or incapacitate the active shooter

Until Help Arrives

- CERT volunteers are NOT equipped or trained to respond to terrorist incidents
- If you find yourself in a situation that you believe to be a terrorist attack, focus on the most lifesaving interventions:
 - 1) Move those in grave danger to a safe place
 - 2) Stop bleeding, prevent shock

Rad/Nuc Shelter-In-Place

- Shut off ventilation systems
- Go to your shelter-in-place room
- Use precut plastic sheeting to cover air openings
- Tape sheeting over doors, windows, vents
- Use duct tape to seal other areas
- Ventilate room once contaminants are gone

Takeaway Tips

If you see something suspicious, citizens should always call local law enforcement. When giving details, include the following:

- Brief description of the activity
- Date, time and location of the activity
- Physical identifiers of anyone you observed
- Descriptions of vehicles
- Information about where people involved in suspicious activities may have gone
- Your name and contact information (optional)



Notes

Notes

Feel free to write any additional notes collected during your training session:

Additional Research
