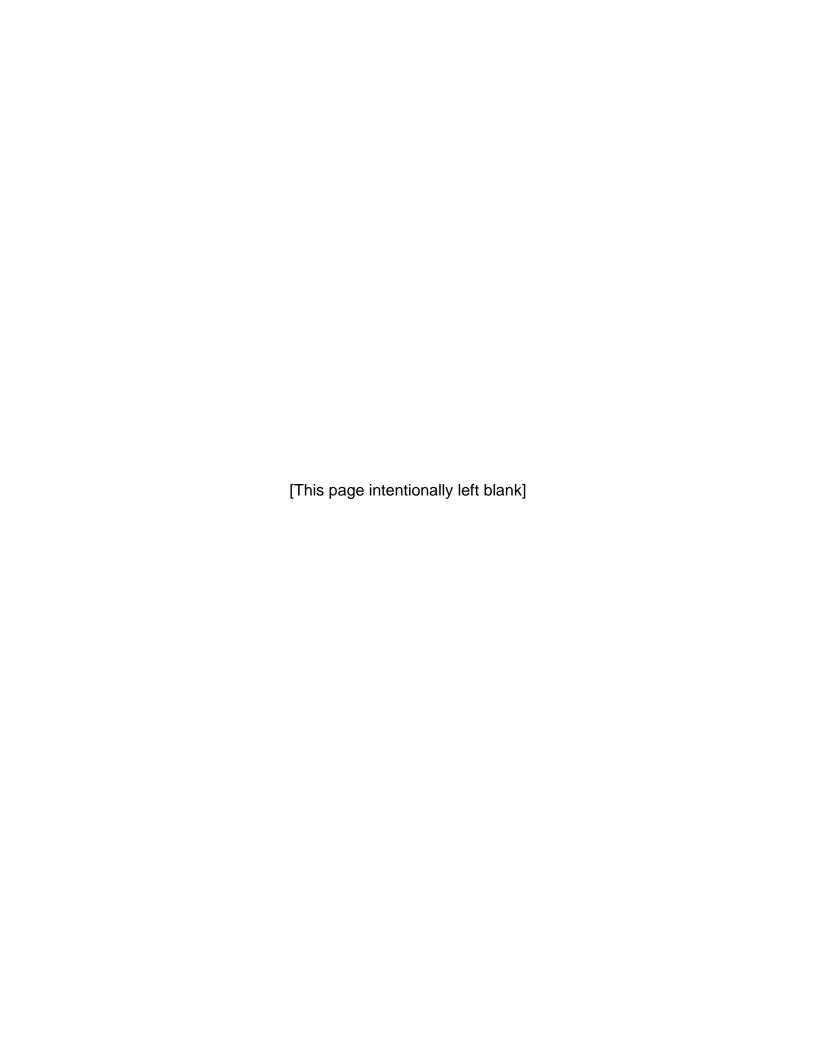
UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

In this unit you will learn about:

- Life-Threatening Conditions: How to recognize and treat an airway obstruction, bleeding, and shock.
- **Triage:** Principles of triage and how to conduct triage evaluations.



UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

OBJECTIVES

At the conclusion of this unit, the participants should be able to:

- Identify the "killers."
- Apply techniques for opening airways, controlling bleeding, and treating for shock.
- Conduct triage under simulated disaster conditions.

SCOPE

The scope of this unit will include:

- Introduction and Unit Overview
- Treating Life-Threatening Conditions
- Triage
- Unit Summary

ESTIMATED COMPLETION TIME

2 hours 30 minutes

TRAINING METHODS

The lead instructor will begin this session by welcoming the participants to Unit 3: Disaster Medical Operations — Part 1, and will introduce the instructors for the session. The instructor will then provide an overview of the topics included in the unit: Treatment of life-threatening conditions that may be encountered (airway obstruction, bleeding, and shock) and conducting triage.

Next, the instructor will discuss and demonstrate the immediate procedures required for opening the airway, controlling bleeding, and treating for shock. The participants will have the opportunity to practice techniques for treating each of these conditions. During this period, some discussion will take place about the differences between disaster medical operations and the participants' image of everyday first aid. (For example, mouth-to-mouth resuscitation and cardiopulmonary resuscitation [CPR] lose some of their importance in disaster situations when there are multiple casualties needing immediate attention and limited resources.)

The next topic of this session will deal with triage. The instructor will open with a discussion of what triage is, when it is used, and the four categories into which victims are sorted. The instructor then explains the 6 steps of using triage in a disaster environment.

UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

TRAINING METHODS (CONTINUED)

Finally, the participants will practice triage evaluation and immediate treatment in a multi-casualty exercise. This exercise will illustrate the need to conduct triage effectively and expeditiously under pressure and to focus on rescuer safety.

RESOURCES REQUIRED

- Community Emergency Response Team Instructor Guide
- Community Emergency Response Team Participant Manual
- PowerPoint slides 3-0 through 3-27

OTHER RESOURCES

If time permits, the 23-minute video, CERT Triage: Handling Mass Causality Situations, is recommended for this unit. The video portrays triage procedures and treatment of obstructed airway, uncontrolled bleeding, and shock, as well as sizeup and rescuer safety. The video is available for download at the national CERT Web site: www.citizencorps.gov/cert/

EQUIPMENT

In addition to the equipment listed at the front of this instructor Guide, you will need the following equipment for this unit:

- A computer with PowerPoint software
- A computer projector and screen
- One mannequin
- Non-latex examination gloves (1 pair for each participant)
- One can of shaving cream
- 4- by 4-inch dressings (1 dressing for every 2 students)
- Note cards, markers, and masking tape

PREPARATION

Triage Exercise

The triage exercise near the end of this session requires materials prepared in advance of the activity.

Before the session, prepare victim status cards, each documenting the status of one disaster victim. Create at least 1 victim description for every 3 participants in the group (e.g., 7 different descriptions for a group of 21 participants). Make three sets of the victim status cards.

UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

PREPARATION (CONTINUED)

Sample victim status descriptions

Victim #1: Ambulatory — responds to voice triage

Minor bleeding Normal blanch

Victim #2: Bleeding extremity

Unconscious

After two attempts to open airway, still not

breathing

Victim #3: Standing, but does not respond to voice

commands

Victim #4: No signs of bleeding

Unconscious

Blanch takes 5 seconds

Victim #5: No bleeding

Conscious

Doesn't squeeze hand when asked

Victim #6: Minor bleeding

Conscious but disoriented Breathing rate is 40 per minute

Culturally Sensitive Topics

Working with a representative of the community in which you will be teaching, identify any potentially culturally sensitive topics in this module. This module features a variety of topics that may require care in how they are presented, including the prioritization of injury required to conduct triage. Some content in this unit discusses touching victims (also featured in the end-of-unit role-playing activity), an activity that may be uncomfortable to some cultures or individuals.

Develop strategies for presenting any such topics in ways that will engage, rather than offend, participants.

Notes	A suggested time plan for this unit is as follows:
	Introduction and Unit Overview
	Total Time: 2 hours 30 minutes
REMARKS	Be sure to emphasize throughout the session the importance of rescuer safety (e.g., using safety equipment, working with a buddy, and doing a thorough sizeup). These points cannot be made too often or too strongly. CERT members cannot help anyone if they become victims.

Unit 3: Disaster Medical Operations – Part I

Disaster Medical Operations — Part 1 CERT Basic Training Unit 3

INSTRUCTOR GUIDANCE

Display Slide 3-0



Correct responses:

- Class A Fires: Ordinary combustibles such as paper, cloth, wood, rubber, and many plastics
- Class B Fires: Flammable liquids (e.g., oils, gasoline) and combustible liquids (e.g., charcoal lighter fluid, kerosene)
- Class C Fires: Energized electrical equipment (e.g., wiring, motors)

Introduction and Overview

Welcome

Introduce this unit by welcoming the participants to Unit 3 of the CERT Basic Training.

CONTENT

Introduce the new instructors for this unit and ask each to describe briefly his or her experience in medical operations.

Briefly review the fire safety lesson.

What are the five classes of fire?

INSTRUCTOR GUIDANCE	CONTENT
 Class D Fires: Combustible metals (e.g., aluminum, magnesium, titanium) Class K Fires: Cooking oils in restaurants and cafeterias (e.g., vegetable oils, animal oils, fats). This does not apply to residential kitchens. 	
	Remind participants that the method used to extinguish each must be appropriate for the type of fire.
?	Before making the decision to extinguish a fire, CERTs should complete a thorough sizeup. What are the 9 sizeup steps in the right order?
Correct response:	
 Gather Facts Assess and Communicate Consider Probabilities Assess Your Own Situation Establish Priorities Make Decisions Develop Plan of Action Take Action Evaluate Progress 	
? €	Should CERTs enter a smoke-filled building?
Correct response:	
Never.	

UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

CONTENT
There are some questions we need to ask to decide whether to extinguish a fire. What are they?
How should CERT members treat a hazardous material placard?
Answer any questions that the students may have about fire safety. Then continue with the session.

CERT BASIC TRAINING: INSTRUCTOR GUIDE JANUARY 2011 PAGE 3-7

UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

INSTRUCTOR GUIDANCE CONTENT Explain that the need for CERT members to learn Assumptions disaster medical operations is based on two · Need for CERT members to learn disaster assumptions: medical operations is based on two assumptions: The number of victims could exceed the local · Number of victims could exceed local capacity capacity for treatment. . Survivors will assist others - They will do whatever they know how to do Survivors will attempt to assist others. CERT They need to know lifesaving first aid or post-disaster survival techniques members will need to know lifesaving first aid or post-disaster survival techniques. **ॐ** FEMA CERT Basic Training Unit 3: Disaster Medical Operations — Part 1 **Display Slide 3-1** Emphasize the need for CERT medical operations by Importance of Quick Action describing the phases of death from trauma: . Phase 1: Death within minutes, result of severe trauma 1. Phase 1: Death within minutes as a result of . Phase 2: Death within several hours, overwhelming and irreversible damage to vital result of excessive bleeding Phase 3: Death in several days or weeks, organs result of infection 2. Phase 2: Death within several hours as a result of excessive bleeding CERT Basic Training Unit 3: Disaster Medical Operations — Part 1 **№** FEMA 3. Phase 3: Death in several days or weeks as a result of infection or multiple-organ failure (i.e., Display Slide 3-2 complications from an injury) Explain that these phases underlie why disaster medical operations are conducted as they are (by identifying those with the most serious injuries as soon as possible and treating those with life-threatening injuries first). Point out that some disaster victims in the second and third phases of death could be saved by providing simple medical care.

UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

INSTRUCTOR GUIDANCE CONTENT Add that in a disaster, there may be more victims than CERT Training rescuers, and assistance from medical professionals may not be immediately available. CERT personnel · Treatment for life-threatening conditions · Airway obstruction, bleeding, shock are trained to be part of disaster medical operations · Treatment for other, less urgent conditions and to provide: Provide greatest good for greatest number Treatment for life-threatening conditions — airway by conducting simple triage obstruction, bleeding, and shock — and for other, and rapid treatment less urgent conditions **ॐ** FEMA CERT Basic Training Unit 3: Disaster Medical Operations — Part CERT The greatest good for the greatest number of people by conducting simple triage and rapid Display Slide 3-3 treatment START START to His Explain that Simple Triage And Rapid Treatment STart = Simple Triage (START) is a critical concept for initially dealing with · Victims sorted based on priority of treatment casualties in a disaster. • stART = And Rapid Treatment · Rapid treatment of injuries assessed and History has proven that 40% of disaster victims can be prioritized in first phase saved with simple (rapid!) medical care. START is based on the premise that a simple medical CERT Basic Training Unit 3: Disaster Medical Operations — Part 1 assessment and rapid treatment based on that assessment will yield positive — often lifesaving — **Display Slide 3-4** results. STart = Simple Triage: The first phase of START is the process by which victims are sorted based on injury and priority of treatment. stART = And Rapid Treatment: The second phase of START consists of rapid treatment of the injuries

courses.

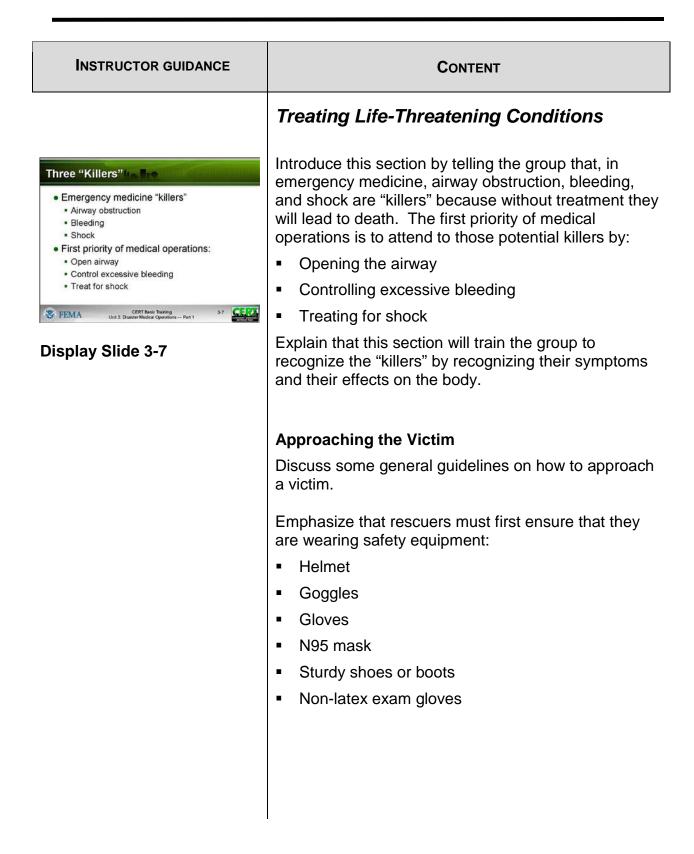
assessed and prioritized in the first phase.

Poll the group to see how many have taken first aid

INSTRUCTOR GUIDANCE	CONTENT
	Explain that all CERT participants are encouraged to take basic first aid and CPR training; however, those who have taken first aid courses will need to understand that CERT covers disaster medical operations where time is critical to conduct triage and treat many victims. CPR is not taught in this course because it is labor intensive and not appropriate when there are many victims and professional help will be delayed.
Unit Objectives 1. The	Unit Objectives
 Identify "killers" Apply techniques for opening airway, controlling bleeding, and treating for shock Conduct triage under simulated disaster 	Tell the group that at the end of this unit, they should be able to:
conditions	Identify the "killers." Apply to obsigue for opening the circular
FEMA Unit 2: Disaster Medical Operations — Part 1	 Apply techniques for opening the airway, controlling bleeding, and treating for shock.
Display Slide 3-5	 Conduct triage under simulated disaster conditions.
	Stress once more that the goal of disaster medical operations is to do the greatest good for the greatest number. In a disaster with many victims, time will be critical. CERT members will need to work quickly and efficiently to help as many victims as possible.

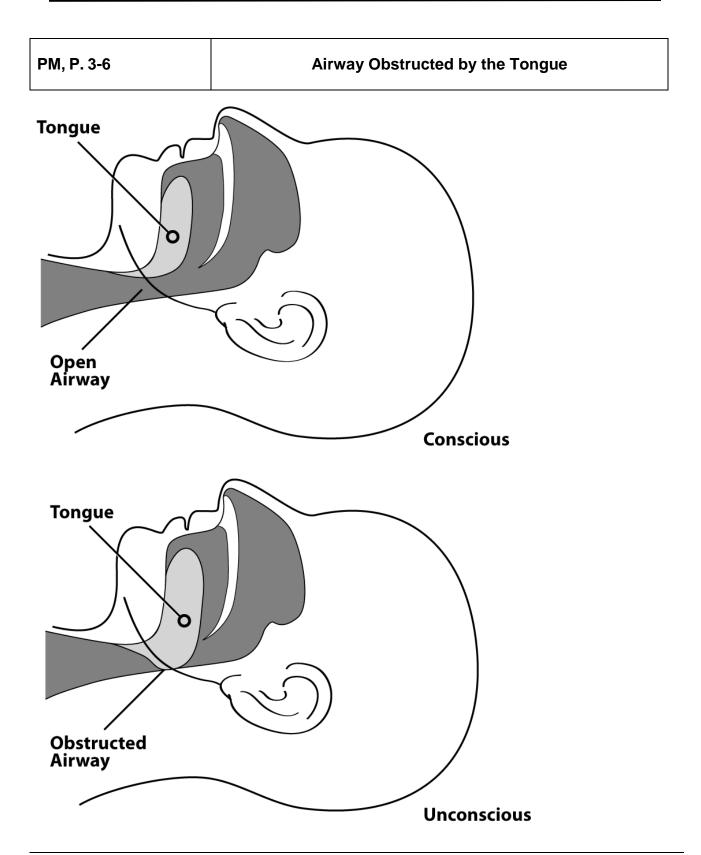
UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

INSTRUCTOR GUIDANCE CONTENT **Unit Topics Unit Topics** Reiterate that this session will introduce the Treating life threatening injuries participants to the principles of triage, including Triage treating the "three killers": airway obstruction, excessive bleeding, and shock. Tell the group that, throughout the unit, they will have opportunities to practice the treatment techniques and, at the end of the unit, they will have the opportunity to **ॐ** FEMA CERT Basic Training Unit 3: Disaster Medical Operations — Part 1 conduct triage evaluations in a simulated disaster. **Display Slide 3-6**



INSTRUCTOR GUIDANCE	CONTENT
How to Approach a Victim Be sure victim can see you Identify yourself Your name and name of your organization Request permission to treat, if possible Respect cultural differences CERT Rate Training Unit 2. Dualer Medica Operation — Part 1 All Display Slide 3-8	Tell them that a time-saving technique is to wear non-latex exam gloves under their work gloves. Then, when they find a victim, they can remove their work gloves and are ready to work with the victim. Remind participants to use non-latex exam gloves to prevent potential reaction by individuals who are allergic to latex. Explain to the group that there are several steps to take when approaching a victim. When ready to approach a victim: 1. If the victim is conscious, be sure he or she can see you. 2. Identify yourself by giving your name and indicating the organization with which you are affiliated. 3. ALWAYS request permission to treat an individual. If the individual is unconscious, he or she is assumed to have given "implied consent," and you may treat him or her. Ask a parent or guardian for permission to treat a child, if possible. 4. Whenever possible, respect cultural differences. For example, in some Muslim traditions it is customary to address the male when requesting permission to treat a female member of his family. 5. Remember, all medical patients are legally entitled to confidentiality (HIPAA). When dealing with victims, always be mindful and respectful of the privacy of their medical condition.

INSTRUCTOR GUIDANCE	CONTENT
Open the Airway Septime Septime	Opening the Airway Explain that the respiratory system includes the following components: Lung Bronchus Larynx Pharynx Nasal Cavity Trachea
**	Does anyone know what the most common airway obstruction is?
Open vs. Obstructed Airway CERT Back Triving Unit: Duesder Medical Operators — Part 1 Display Slide 3-10	If not mentioned, tell the group that the most common airway obstruction is the tongue. Explain that, in an unconscious or semiconscious victim, especially one positioned on his or her back, the most common airway obstruction is the tongue. The tongue — which is a muscle — may relax and block the airway. A victim with a suspected airway obstruction must be checked immediately for breathing and, if necessary, the airway must be opened.
PM, P. 3-6	Refer the participants to the illustration titled <i>Airway</i> Obstructed by the Tongue in the Participant Manual.



UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

INSTRUCTOR GUIDANCE CONTENT The Head-Tilt/Chin-Lift Method Head-Tilt/Chin-Lift Method Explain that, when an airway obstruction is suspected, because a victim is unconscious or semiconscious, CERT members should clear the airway using the Head-Tilt/Chin-Lift method. Refer the participants to the table titled *Head-Tilt/Chin-*Lift Method for Opening an Airway in the Participant **ॐ** FEMA Manual. **Display Slide 3-11** Explain that in addition to opening the airway, this method causes little or no cervical-spine manipulation because only the head is manipulated. PM, P. 3-7 Mention that the proper technique is important in opening an airway, but so is speed if there are multiple victims. This method involves the following 7 steps: Demonstrate each step slowly using an instructor or Step 1: Positioning oneself at an arm's distance, participant as the victim. Be make contact with the victim and ask, "Can you sure to wear gloves to hear me?" Speak loudly but do not yell. reinforce the need for protective equipment. Step 2: If the victim does not or cannot respond, place the palm of one hand on the victim's forehead. Step 3: Place two fingers of the other hand under the chin and tilt the jaw upward while tilting the head backward slightly. Step 4: Place your ear close to the victim's mouth, looking toward the victim's feet, and place a hand on the victim's abdomen. Step 5: Look for chest rise.

INSTRUCTOR GUIDANCE	CONTENT
If possible, demonstrate "abnormal" lung sounds.	 Step 6: Listen for air exchange. Indicate that when listening for air exchange, a CERT member should document abnormal lung sounds (wheezing, gasping, gurgling, etc). Appearance of any sound that is not normal raises the victim's status to "I." Remind the participants that it is NOT their duty to diagnose based on those signs.
	 Step 7: Feel for abdominal movement. Step 8: If breathing has been restored, the clear airway must be maintained by keeping the head tilted back. If breathing has not been restored, repeat steps 2-7.

UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

PM, P. 3-7 Head-Tilt/Chin-Lift Method for Opening an Airway

Step	Action
1	At an arm's distance, make contact with the victim by touching the shoulder and asking, "Can you hear me?" Speak loudly, but do not yell.
2	If the victim does not or cannot respond, place the palm of one hand on the forehead.
3	Place two fingers of the other hand under the chin and tilt the jaw upward while tilting the head back slightly.
4	Place your ear close to the victim's mouth, looking toward the victim's feet, and place a hand on the victim's abdomen.
5	Look for chest rise.
6	Listen for air exchange.Document abnormal lung sounds (wheezing, gasping, gurgling, etc.).
7	Feel for abdominal movement.

INSTRUCTOR GUIDANCE	CONTENT
	Exercise: Opening the Airway
Teach this skill in accordance with your local protocols. It is important to have other	Procedure: Explain that this exercise allows the participants in pairs to practice using the Head-Tilt/Chin-Lift method on each other.
instructors who can help observe. Make sure that you all agree on the proper procedure.	After all of the participants have had the opportunity to be the rescuer, discuss any problems or incorrect techniques that were observed. Explain how to avoid these problems in the future.
	<u>Instructions</u> : Follow the steps below to conduct this exercise:
	1. Assign the group to work in pairs.
	Ask the person on the right to be the victim and the person on the left to be the rescuer.
	Ask the victims to lie on the floor on their backs and close their eyes.
	4. Ask the rescuer to use the Head-Tilt/Chin-Lift method on the victim to open the airway.
	5. After the rescuer has made two or three attempts at using the Head-Tilt/Chin-Lift method, ask the victim and the rescuer to change roles.
	6. Allow each rescuer two or three observed attempts to use the Head-Tilt/Chin-Lift method.
	Observe each pair and correct improper technique.
	After all of the participants have had the opportunity to be the rescuer, discuss any problems or incorrect techniques that were observed. Explain how to avoid these problems in the future.

Instructor Guidance	Content
	Maintaining the Airway
Demonstrate both techniques.	Tell the group that, if breathing has been restored, the clear airway still must be maintained. One option is to ask another person to hold the head in place; even another victim with minor injuries could do this. The airway also can be maintained by placing soft objects under the victim's shoulders to elevate the shoulders slightly and keep the airway open.
	Remind the participants that part of their mission is to do the greatest good for the greatest number of people. For that reason, if breathing is not restored on the first try using the Head-Tilt/Chin-Lift method, CERT members should try again using the same method. If breathing cannot be restored on the second try, CERT members must move on to the next victim.
Explain that "head injury" refers to concussion, not head or facial cuts, although these may be indicators of head injury.	Tell the group that they should always be concerned with head, neck, or spinal injuries (all of which are common in structural collapses). Used properly, the Head-Tilt/Chin-Lift method for opening an airway causes little spinal manipulation because the head pivots on the spine.
	Remind the group of the importance of opening the airway as quickly as possible. Emphasize that, in treating the three killers, checking for airway obstruction is <u>always</u> first.
?	Does anyone have any questions about recognizing and clearing airway obstructions?
	Tell the participants that in the next section, they will learn to recognize and treat uncontrolled bleeding.

INSTRUCTOR GUIDANCE	CONTENT
	Controlling Bleeding
Show the class a 1-liter bottle to illustrate this learning point.	Introduce this section by telling the group that uncontrolled bleeding initially causes weakness. If bleeding is not controlled, the victim will go into shock within a short period of time and finally will die. An adult has about 5 liters of blood. Losing 1 liter can result in death.
Types of Bleeding - 1	Explain to the group that there are three types of bleeding and the type can usually be identified by how fast the blood flows:
 Arterial bleeding Bleeding from artery spurts Venous bleeding 	 Arterial bleeding. Arteries transport blood under high pressure. Blood coming from an artery will spurt.
Bleeding from vein flows Capillary bleeding Bleeding from capillaries oozes	 Venous bleeding. Veins transport blood under low pressure. Blood coming from a vein will <u>flow</u>.
FEMA Unit 3: Disunser Medical Operators — Part 1	 <u>Capillary bleeding</u>. Capillaries also carry blood under low pressure. Blood coming from capillaries will <u>ooze</u>.
Types of Bleeding - 2 Arterial Venous Capitary Unit 2: Drawter Medical Operations — Part 1	
Display Slides 3-12 and 3-13	

UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

INSTRUCTOR GUIDANCE	CONTENT
Control Bleeding 3 main methods for controlling bleeding: Direct pressure Elevation Pressure points CERT Bave Training Unit 2: Disaster Medical Operations — Part 1 3-14	Tell the group that there are three main methods for controlling bleeding: Direct pressure Elevation Pressure points Explain that direct pressure and elevation will control bleeding in 95% of cases.
Display Slide 3-14	
PM, P. 3-10	Refer the participants to the table titled <i>Procedures for Controlling Bleeding</i> in the Participant Manual.

JANUARY 2011 CERT BASIC TRAINING: INSTRUCTOR GUIDE

PM, P. 3-10	Procedures for Controlling Bleeding
-------------	-------------------------------------

Method	Procedures
Direct Pressure	 Place direct pressure over the wound by putting a clean dressing over the wound and pressing firmly.
	 Maintain pressure on the dressing over the wound by wrapping the wound <u>firmly</u> with a pressure bandage and tying with a bow.
Elevation	Elevate the wound above the level of the heart.
Pressure Points	Put pressure on the nearest pressure point to slow the flow of blood to the wound. Use the:
	Brachial point for bleeding in the arm
	 Femoral point for bleeding in the leg
	Popliteal point for bleeding in the lower leg

UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

INSTRUCTOR GUIDANCE	CONTENT
Demonstrate each procedure on the mannequin or on another instructor.	Direct Pressure
	Demonstrate the procedure for controlling bleeding through direct pressure:
	 Step 1: Place direct pressure over the wound by putting a clean dressing over it and pressing firmly.
	Step 2: Maintain pressure on the dressing over the wound by wrapping it <u>firmly</u> with a bandage.
	Stress that direct pressure and elevation can take 5 to 7 minutes to stop the bleeding completely. The use of a dressing and pressure bandage allows the rescuer to move on to the next victim.
	Explain that a pressure bandage should be tied with a bow, so that it can be loosened — rather than cut — to examine the wound, and then retied. This procedure helps to conserve supplies and saves time.
	Explain that the bandage maintains the direct pressure needed to stop the bleeding. CERT members continue to assess the victim's status. If the victim's limb is turning blue or becoming numb below the bandage, then it should be loosened.
Demonstrate the procedure for controlling bleeding through elevation.	Elevation
	Explain that elevation can be used in combination with direct pressure.
	Elevate the wound above the level of the heart.

JANUARY 2011 CERT BASIC TRAINING: INSTRUCTOR GUIDE

INSTRUCTOR GUIDANCE	CONTENT
Demonstrate why elevation works by asking the participants to put their arms straight up in the air over their heads. Have them hold this position for 20-30 seconds.	Emphasize that the body has great difficulty pumping blood against gravity; therefore, elevating a wound above the heart will decrease blood flow and loss of blood through the wound.
Ask them how their fingers, hands and arms feel. They should feel cold, tingly, numb, etc.	
Pressure Points Pressure Points Pressure Point	Pressure Points Tell the participants that there are also pressure points that can be used to stem the flow of bleeding.
Demonstrate use of the brachial pressure point by applying pressure to your own arm. Explain that this technique requires the application of strong pressure. Then, have the participants apply pressure to their own arms so that they can feel the effect of this method.	Demonstrate where to find the pressure points. The pressure points most often used are the: Brachial point in the arm Femoral point in the leg Pressure point behind the knee Explain that the pressure point to be used depends on the location of the wound. The correct pressure point will be between the wound and the heart.

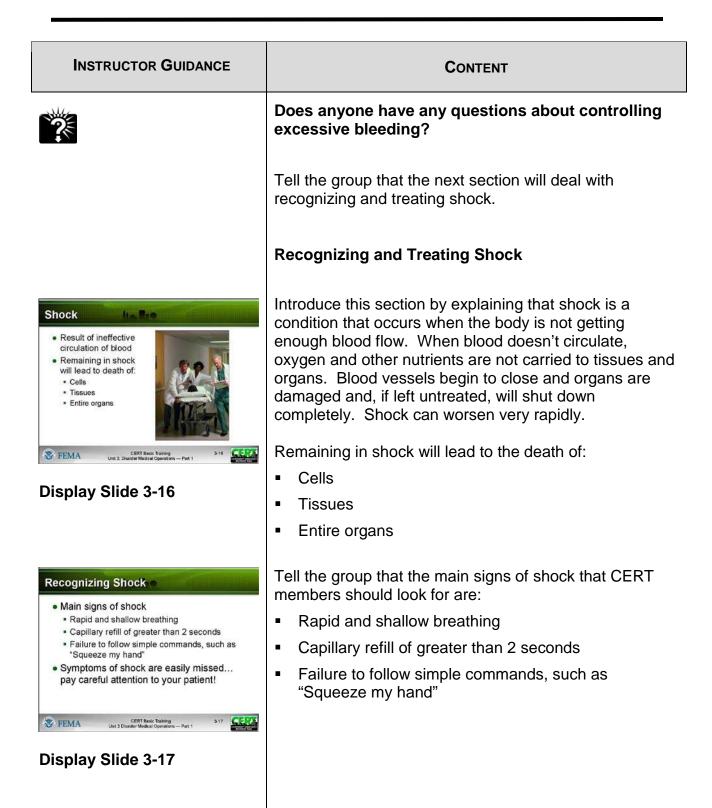
INSTRUCTOR GUIDANCE	CONTENT
PM, P. 3-12	Refer the participants to the illustrations of these pressure points and the figure titled <i>Methods for Controlling Bleeding</i> in the Participant Manual.
	Encourage the participants to get victims to help themselves whenever possible by using any of these methods to control bleeding.
?	Does anyone have any questions about controlling bleeding?

PM, P. 3-12	Methods for Controlling Bleeding
just ab	Femoral Pressure Point in the Upper thigh Popliteal Pressure Point behind the knee

INSTRUCTOR GUIDANCE	CONTENT
	Exercise: Controlling Bleeding
	<u>Procedure:</u> Explain that this exercise allows the participants to practice the techniques for controlling bleeding on each other.
	The participants will be divided into pairs. Each member of the pair will practice applying a pressure bandage and elevation.
	<u>Instructions</u> : Follow the steps below to conduct this exercise:
	1. Assign the group to pairs.
	Identify one person to be the victim and one person to be the rescuer.
	3. Ask the victims to lie on the floor on their backs and close their eyes.
	4. Ask the rescuer to use direct pressure to control bleeding from a simulated wound on the right forearm just below the elbow. Have the rescuer:
	 Apply a pressure bandage Elevate the arm Repeat these two steps Repeat the two steps for speed
	5. After the rescuer has made at least three attempts at using each technique, ask the victim and the rescuer to change roles. (Note: The three attempts should emphasize a progression of slow to fast in applying the skill.)
	6. Observe each group and correct any improper techniques. Common errors include bandages that are too loose, tying a knot instead of a bow, or elevation that cannot be maintained with comfort.
	Allow each rescuer at least one observed attempt to use each technique.

INSTRUCTOR GUIDANCE	Content
	Tourniquets (Optional)
Note: This section on tourniquets is optional and can be added at the instructor's discretion.	Explain that CERTs will use direct pressure on pressure points and elevation to manage most bleeding. However, if bleeding cannot be stopped using these methods and professionals are delayed in responding, a tourniquet may be a viable option to save a person from bleeding to death. However, a tourniquet is absolutely a last resort (life or limb) when other preferred means have failed to control bleeding in an arm or a leg.
	While the use of a tourniquet is extremely rare, it may have a use when part of an extremity is amputated or crushed and bleeding cannot be stopped by any other preferred means.
	Explain the proper use of a tourniquet and demonstrate its application, making the following points.
	 A tourniquet is a bandage which, when placed around a limb and tightened, cuts off the blood supply to the part of the limb beyond it.
	A tourniquet can do harm to the limb, but it can halt severe blood loss when all other means have failed and professional help will not arrive in time to help stop the bleeding before the person dies.
	 Use any long, flat, soft material (bandage, neck tie, belt, or stocking). Do not use materials like rope, wire, or string that can cut into the patient's flesh.

INSTRUCTOR GUIDANCE	CONTENT
	To tie a tourniquet:
	 Place the tourniquet between the wound and the heart (for example, if the wound is on the wrist, you would tie the tourniquet around the forearm).
	2. Tie the piece of material around the limb.
	Place a stick, pen, ruler, or other sturdy item against the material and tie a knot around the item, so that the item is knotted against the limb.
	 Use the stick or other item as a lever to twist the knot more tightly against the limb, tightening the bandage until the bleeding stops.
	Tie one or both ends of the lever against the limb to secure it and maintain pressure.
	Mark the patient in an obvious way that indicates that a tourniquet was used and include the time it was applied.
	Do not loosen a tourniquet once it has been applied.
	Only proper medical authorities should remove a tourniquet.
	Review
	Reiterate the three main ways to control excessive bleeding:
	 Direct pressure
	Elevation
	Pressure points
	Stress that bleeding must be controlled as quickly as possible so as not to endanger the victim's life from blood loss. Remind the group that they should always wear their non-latex exam gloves, goggles, and an N95 mask as a protection against blood-borne pathogens, such as hepatitis and HIV.



INSTRUCTOR GUIDANCE	Сонтент
To demonstrate rapid, shallow breathing, ask two participants to come to the front of the room. Tell one to breathe normally. Tell the other to "pant" (i.e., 30 or more breaths per minute). Point out the audible difference to the class. Make sure that the participant who is "panting" is sitting during the demonstration.	Evaluate Breathing Demonstrate rapid, shallow breathing.
Ask the participants to check their own capillary refill by pushing down on the palm of their hand and then releasing. Tell them to watch what happens. Ask one of the participants to explain. Emphasize that capillary refill should occur within 2 seconds.	Evaluate Circulation Demonstrate capillary refill. Tell the group that this is referred to as the "blanch test." A good place to do this is on the palm of the hand. The nail beds are sometimes used. Explain that the blanch test is not valid in children, and that mental status should be used instead as the main indicator.
Ask participants to perform a radial pulse test by placing middle and ring finger over the interior of their wrist where the thumb meets the arm Note that a normal pulse rate is 30-60 beats per minute.	Explain that another way to check for circulation is the radial pulse test. Explain that this is an alternative to the blanch test and can be used in the dark or where it is cold. Demonstrate how to find a radial pulse.

INSTRUCTOR GUIDANCE	Content
	Evaluate Mental Status
	Explain that there are several ways to evaluate mental status.
	■ Ask, "Are you okay?"
	Give a simple command such as "Squeeze my hand."
	If you are concerned that there might be a language barrier or hearing impairment, reach out with both hands and squeeze one of the victim's hands. The person will squeeze back if they can.
	Treating for Shock
	Remind the group that the body will initially compensate for blood loss and mask the symptoms of shock; therefore, shock is often difficult to diagnose. It is possible — and, in fact, common — for an individual suffering from shock to be fully coherent and not complaining of pain. Pay attention to subtle clues, as failure to recognize shock will have serious consequences.
PM P. 3-17	Discuss the procedure for treating victims of shock. Refer the participants to the chart titled <i>Procedures for Controlling Shock</i> in the Participant Manual.
	■ <u>Step 1</u> : Maintain an open airway.
	 Step 2: Control excessive bleeding.
	Step 3: Maintain body temperature.

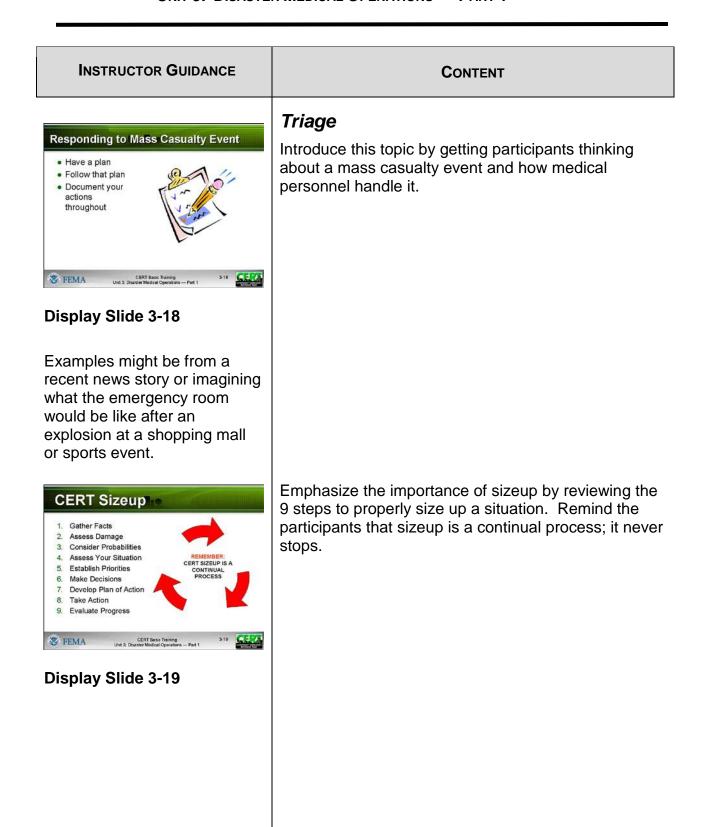
INSTRUCTOR GUIDANCE	CONTENT
	Remind participants to avoid rough or excessive handling. Stress the importance of maintaining the victim's body temperature. If necessary, place a blanket or other material under and/or over the victim to provide protection from extreme ground temperatures (hot or cold). Position the victim on his or her back and elevate the feet 6 to 10 inches above the level of the heart to assist in bringing blood to the vital organs.
	Emphasize that, although victims who are suffering from shock may be thirsty, they should <u>not</u> eat or drink anything initially because they may also be nauseated.
	Does anyone have a question about the signs or treatment of shock?

PM, P. 3-17 Procedures for Controlling Shock
--

Step	Action
1	Maintain an open airway.
2	Control obvious bleeding.
3	 Maintain body temperature (e.g., cover the ground and the victim with a blanket if necessary).
Notes	Avoid rough or excessive handling.Do not provide food or drink.

INSTRUCTOR GUIDANCE	Content
	Exercise: Treating Shock
	<u>Procedure:</u> Explain that this exercise allows the participants in pairs to practice the steps for treating shock on each other.
	Reiterate the key points about recognizing and treating shock:
	A victim may display one or more signs of shock.
	If there is any reason to suspect shock, apply immediate treatment.
	Instructions: Follow the steps below to conduct this exercise:
	Assign the group to the same pairs as in the previous exercises.
	Ask those who were the rescuers first in the last exercise to be the victims first.
	Ask the victims to lie on the floor on their backs and close their eyes.
	4. Explain the following scenario to the rescuers:
	 You have come upon an unconscious victim who has been bleeding profusely from a wound of the upper arm for an undetermined period of time. You have controlled the bleeding.
	What do you need to do next?
	5. Ask the rescuer to treat the victim.
	6. Observe each rescuer as he or she treats for shock. Do not let the students put a blanket under the victim's feet. Blankets are scarce during a disaster response and should not be used for nonessential purposes.

INSTRUCTOR GUIDANCE	CONTENT
	When each rescuer has been observed treating for shock, ask the victim and the rescuer to switch roles.
	When all of the rescuers have had the opportunity to treat their victims, lead a discussion about any incorrect techniques observed and how to correct them in the future.
?	Does anyone have a question about the signs of shock or its treatment?
	Tell the group that, in a disaster scenario, they may have many victims requiring attention and few resources to use. The next section will use the skills just learned for prioritizing victim treatment. This is called triage.



INSTRUCTOR GUIDANCE	CONTENT
	In mass casualty events, medical personnel:
The point of this discussion is to get the participants thinking	 Identify the dead and those who are too severely injured to be saved
about multiple casualties.	 Send those with relatively minor injuries and wounds to a holding area to await treatment
	 Identify those who would die from life-threatening injuries and treat them immediately
	Tell the participants that these scenes showed medical personnel conducting <u>triage</u> — a French term meaning "to sort."
What Is Triage?	What Is Triage?
Process for managing mass casualty event Victims are evaluated Victims are sorted by urgency of treatment needed Victims are set up for immediate or delayed treatment	Explain that during medical triage, victims are evaluated, sorted by the urgency of the treatment needed, and set up for immediate or delayed treatment.
FEMA CERT Basic Training 3-20 Unit 3: Disaster Medical Operations — Part 1	Explain further that triage was, in fact, initiated by the military and that experience has shown that triage is an effective strategy in situations where:
Display Slide 3-20	There are many more victims than rescuers
	There are limited resources
	Time is critical
	Point out that triage occurs as quickly as possible after victims are located or rescued.

UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

INSTRUCTOR GUIDANCE Triage Immediate (I): Victim has life-threatening injuries (airway, bleeding, or shock) Delayed (D): Injuries do not jeopardize victim's life; treatment can be delayed Minor (M): Walking wounded and generally ambulatory Dead (DEAD): No respiration after two attempts to open airway CERT Ruck Training Local Tra

Display Slide 3-21

When discussing triage, be sure to highlight how triage is organized and conducted in your area. Specify what materials the CERTs use to mark triaged victims, e.g., tags, tape, etc.

Some participants may respond negatively to not performing CPR. CPR is a maintenance therapy that requires time and rescuers that may not be available when dealing with multiple casualties. In a situation without multiple casualties, CPR may be administered by available trained personnel.

Explain any State laws about moving the dead that may apply to CERTs.

CONTENT

During medical triage, victims' conditions are evaluated and the victims are prioritized into four categories:

- Immediate (I): The victim has life-threatening injuries (airway, bleeding, or shock) that demand immediate attention to save his or her life; rapid, lifesaving treatment is urgent. These victims are marked with a red tag or labeled "I."
- Delayed (D): Injuries do not jeopardize the victim's life. The victim may require professional care, but treatment can be delayed. These victims are marked with a yellow tag or labeled "D."
- Minor (M): Walking wounded and generally ambulatory. These victims are marked with a green tag or labeled "M."
- Dead (DEAD): No respiration after two attempts to open the airway. Because CPR is one-on-one care and is labor intensive, CPR is not performed when there are many more victims than rescuers. These victims are marked with a black tag or labeled "DEAD."

Remind the group that the CERT goal is to do the greatest good for the greatest number.

Explain that, from triage, victims are taken to the designated medical treatment area (immediate care, delayed care, or the morgue).

Remind the participants that CERT members do not rescue those tagged DEAD. If the scene is deemed safe and it is appropriate to do so, CERT members may move the DEAD to the morgue.

INSTRUCTOR GUIDANCE	CONTENT
	It is crucial to the physical and mental well-being of disaster survivors that the morgue be placed away from the other groups. Traditionally, blue tarps are used to identify and conceal the morgue area. Note that the setup of medical treatment areas will be
	covered in the next unit.
Rescuer Safety During Triage	Rescuer Safety During Triage
If hazmat or terrorist event is suspected, CERT members DO NOT respond Evacuate as safely as possible ALWAYS wear PPE: Helmet Goggles N95 mask Work gloves Sturdy shoes or boots Non-latex exam gloves CERT Radi Training	Remind the group that, if hazardous materials are present, rescuer safety is paramount. CERT members should leave the scene to avoid harm to themselves and to reduce the risk of spreading the contamination.
Unit 3: Disable Medical Operations — Part 1	
Display Slide 3-22	
Emphasize these points.	
Demonstrate the methods for changing non-latex exam gloves without contaminating oneself by pinching the glove at the top and rolling it off while turning it inside out as it comes off. To remove the second glove, tuck two fingers inside the glove and roll the glove off, being careful not to touch the outside.	Emphasize the need for rescuer safety during triage. Rescuers must wear all safety equipment, including non-latex exam gloves, goggles, a helmet, and an N95 mask when examining victims and should try to change gloves between victims. Because of limited supplies, it may not be possible to use a new pair of gloves for every victim. If this is the case, gloves may be sterilized between treating victims using 1 part bleach to 10 parts water. Tell the group that their disaster kits should have a box of non-latex exam gloves. Bleach and potable water should also be available at the CERT's medical treatment area.

INSTRUCTOR GUIDANCE	CONTENT
	Exercise: Removing Exam Gloves
	Procedure: Explain that this exercise allows the participants to practice the proper technique for removing soiled exam gloves without spreading contaminants.
	<u>Instructions</u> : Follow the steps below to conduct this exercise:
	Ask the participants to put on a pair of non-latex exam gloves.
	 Walk around the room and give each participant a small dollop of shaving cream and ask them to rub their hands together as if washing.
	Demonstrate the procedure for removing gloves again with shaving cream on your gloves.
	Ask the participants to remove their gloves without touching or splattering any shaving cream.
	Repeat until all participants are able to complete the technique quickly and comfortably.

INSTRUCTOR GUIDANCE	CONTENT
	Triage in a Disaster Environment
Step 1: Stop, Look, Listen, and Think Step 2: Conduct voice triage Step 3: Start where you stand; follow	Introduce this section by explaining the general procedure for CERTs to conduct triage:
systematic route Step 4: Evaluate each victim and tag Step 5: Treat "!" victims immediately Step 6: Document triage results CERT Back Triabing Und 3: Character Medical Operations—Part 1 323 Display Slide 3-23 Emphasize this first step.	Step 1: Stop, Look, Listen, and Think. Before your team starts, stop and size up the situation by looking around and listening. Think about your safety, capability, and limitations, and decide if you will approach the situation. If you decide to proceed, quickly make a plan about your approach that all members understand.
Discuss questions you should ask to gather facts about the situation.	 Step 2: Conduct voice triage. Begin by calling out, "Community Emergency Response Team. If you can walk, come to the sound of my voice." Speak loudly and firmly. If there are survivors who are ambulatory, tag them M and direct them to a designated location. If rescuers need assistance and there are ambulatory survivors, then these survivors should be asked to provide assistance. These persons may also provide useful information about the location of the victims. Note that, during triage, these individuals must be tagged "M." Step 3: Start where you stand, and follow a systematic route. Start with the closest victims and work outward in a systematic fashion.

(imme Reme Reme individ Say th triage	Exaluate each victim and tag them "I" diate), "D" (delayed), "M" (minor), or DEAD. Imber to evaluate the walking wounded. Imber to ASK for permission to treat if the lual is conscious. Interval will explain more about how to do a evaluation in a minute. Example 1 victims immediately. Initiate airway gement, bleeding control, and/or treatment ock for Category I victims. Example 2 Document triage results for:
manage for she	gement, bleeding control, and/or treatment ock for Category I victims. S: Document triage results for:
• Eff	-
de Emphasiz during tria	ective deployment of resources ormation on the victims' locations quick record of the number of casualties by gree of severity that the rescuer's safety is paramount age. Stress the importance of wearing otective equipment to avoid endangering health.

Instructor Guidance	CONTENT
This section puts together the pieces that have been covered so far in the unit.	Evaluating a Victim During Triage
Step 4: Triage Evaluation Check airway and breathing Check circulation and bleeding Check mental status	Remind participants that the goal of triage is to identify and treat victims who need immediate care as rapidly as possible. As an expansion of Step 4 on the previous page, explain that there is a certain order for doing a triage evaluation. Every evaluation should be done in this order.
FEMA Unit 3: Disanter Medical Operations — Pirt 1	
Display Slide 3-24	
PM, P. 3-22	Refer the participants to the table titled <i>Evaluating a Victim During Triage</i> in the Participant Manual.
Demonstrate as you explain the steps.	Explain that when conducting a triage evaluation they should:
•	Start with the airway. At an arm's distance, make contact with the victim and speak loudly. If the victim does not respond, then:
	 Position the airway.
	 Look, listen, and feel.
	 Check breathing rate. Abnormally rapid respiration (above 30 per minute) indicates shock. Maintain the airway and treat for shock and tag "I."
	 If the victim is not breathing after two attempts to open the airway, then tag the victim "DEAD."

Instructor Guidance	CONTENT
	 Second, check for bleeding. Stop uncontrolled bleeding. Perform blanch test for capillary refill (greater than 2 seconds should be marked "I"). Or perform a radial pulse test. If pulse present, continue to assessment of mental status. Note abnormal pulse. If pulse absent or abnormal, elevate status to "I" and treat for bleeding and shock. Third, check mental status. If no response, the victim's status is "I." If the victim passes all tests, his or her status is "D." If the victim fails one test, status is "I." Remember that everyone gets a tag.

PM, P. 3-22	Evaluating a Victim During Triage
-------------	-----------------------------------

Step	Procedures
1	Check airway/breathing. At an arm's distance, make contact with the victim and speak loudly. If the victim does not respond:
	Position the airway.
	Look, listen, and feel.
	 Check breathing rate. Abnormally rapid respiration (above 30 per minute) indicates shock. Maintain the airway and treat for shock and tag "I."
	■ If below 30 per minute, then move to Step 2.
	If the victim is not breathing after two attempts to open airway, then tag "DEAD."
2	Check circulation/bleeding.
	Take immediate action to control severe bleeding.
	 Check circulation using the blanch test (for capillary refill) or a radial pulse test.
	 Press on an area of skin until normal skin color is gone. Time how long it takes for normal color to return. Treat for shock if normal color takes longer than 2 seconds to return, and tag "I."
	Or check the radial pulse.
	If present, continue to step 3.
	 Note if the pulse is abnormal (rapid, thready, weak, etc.)
	 If absent, tag "I" and treat for bleeding and shock.
3	Check mental status. Inability to respond indicates that immediate treatment for shock is necessary. Treat for shock and tag "I."

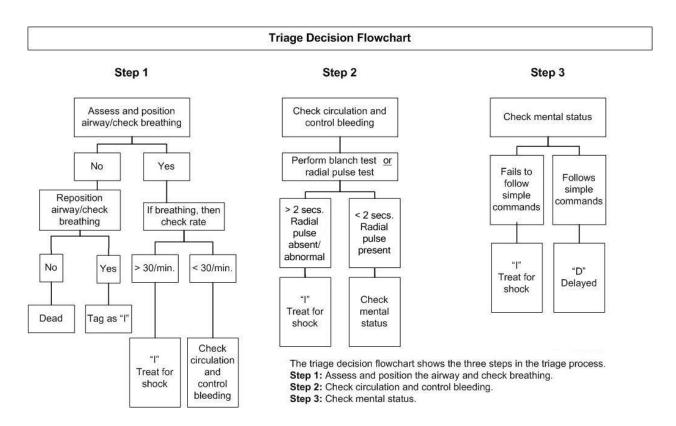
INSTRUCTOR GUIDANCE	CONTENT
Ask participants to work individually to learn the steps: 1. Read through the first step. 2. Perform the motions of the step. 3. Repeat the process for steps 2 and 3. 4. Finally, perform the motions of the entire triage evaluation without looking at the chart. Suggest that participants do mental and physical walk-throughs of the triage evaluations at least three times a day until the next session.	Tell participants that they need to get very good at doing a triage evaluation rapidly. The goal should be to do it within 15-30 seconds.
	Documenting Triage
PM, P. 3-23	Refer the participants to the Sample Triage Documentation figure in the Participant Manual. Explain how to document victims during triage (the number of people tagged "Immediate," "Delayed," "Minor," and "Dead") and their location. Also explain to the group how useful such information can be to professional responders.

PM, P. 3-23	Sample Triage Documentation
-------------	-----------------------------

Status	Location			
	Α	В	С	D
I	1	2	0	1
D	0	2	5	3
М	10	11	7	15
Dead	3	7	1	0

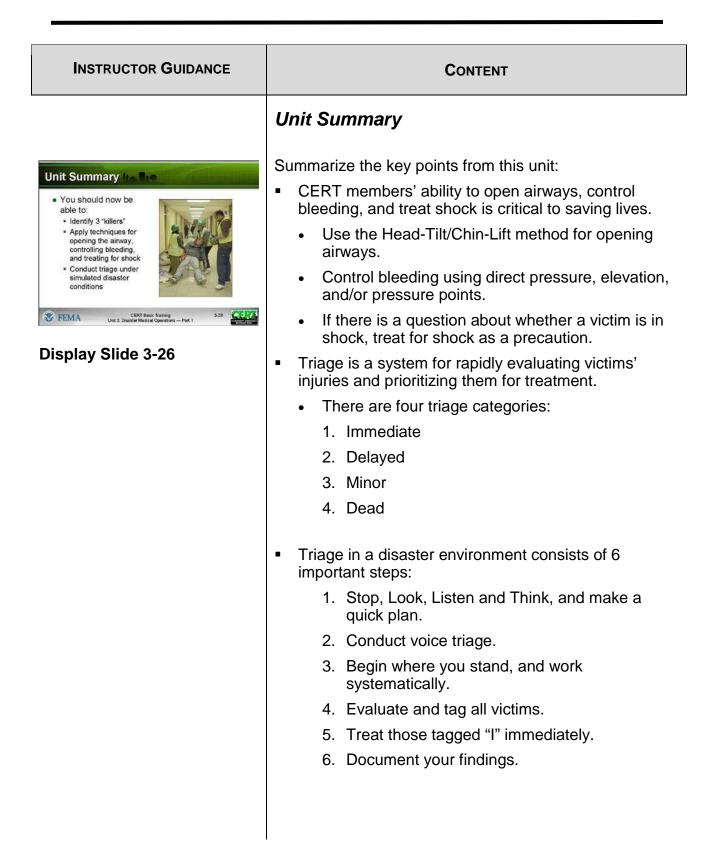
Instructor Guidance	Content
	Triage Pitfalls
PM, P. 3-25	Refer the participants to the flowchart titled <i>Triage Decision Flowchart</i> in the Participant Manual and recommend that they study the flowchart outside of this session until they are very familiar with triage procedures. (Point out that "2 seconds" refers to the results of the capillary refill test.)
	Stress that time will be critical in a disaster. The participants will not be able to spend very much time with any single victim. Remind them that they want to do the greatest good for the greatest number of victims.
	Tell participants that in order to respond effectively in a mass casualty event, CERT members must:
	 Have a plan based on a thorough sizeup
	■ Follow that plan
	Document actions throughout
No team plan, organization, or goal Indecisive leadership Too much focus on	Stress also that the participants should take advantage of local exercises as a means of maintaining their triage skills and to help them avoid the triage pitfalls.
	Triage pitfalls include:
one injury Treatment (rather than triage)	No team plan, organization, or goal
performed	 Indecisive leadership
FEMA CERT Basic Training 3-28 CERT.	■ Too much focus on one injury
and definition for the second	 Treatment (rather than triage) performed
Display Slide 3-25	
?	Does anyone have questions on how to perform triage?

PM, P. 3-25 Triage Decision Flowchart



INSTRUCTOR GUIDANCE	Content
	Exercise: Conducting Triage
Before the session, prepare victim status cards, each documenting the status of one disaster victim. See Preparation at the beginning of this unit for instructions on how to complete the victim status cards.	<u>Purpose:</u> Explain that this exercise will allow the participants to practice conducting triage in a high-pressure situation.
	Participants will divide into three groups. Each participant will be given a card describing their medical status to tape to their shirt. The members of the group will take turns triaging.
	Explain to the participants that there will be three rounds of the exercise to give each person a chance to practice triage. In each round, one group will be the rescuers and the other groups will be victims. Each participant has a chance to be a rescuer once. The rescuers will have a limited amount of time to:
	 Size up the situation and develop a plan of action
	Conduct triage and tag each victim for treatment
	 Document the number of victims in each category of triage (Immediate, Delayed, Minor, Dead)
	Remind the participants to bring their blankets to the disaster area.
	Instructions: Follow the steps below to conduct this exercise:
	In the classroom, divide the participants into three groups. Provide one set of the victim status cards to each group. Each participant will get one card.
	2. In Round 1, Groups 2 and 3 are victims and remain in the classroom. Each person should tape his or her victim status card to their shirt. One instructor remains in the classroom to work with the victims to arrange themselves.

INSTRUCTOR GUIDANCE	Сонтент
	3. In Round 1, Group 1 will be the rescuers. While Groups 2 and 3 set up the scene in the classroom, Group 1 goes outside the room to quickly develop a plan of action. A second instructor should observe the rescuers' brief planning session.
	4. After no more than 2 minutes, Group 1 enters the classroom to triage the victims. (They will tag each by writing "I", "D," "M," or "Dead" on the victim status card.)
	Allow the rescuers 5 minutes to complete their triage.Observe the rescuers as they conduct triage.
	6. In Round 2, Group 2 will be the rescuers.
	7. In Round 3, Group 3 will be the rescuers.
	<u>Debrief:</u> After all three groups have had a chance to practice triage, call the groups together and conduct a discussion on the results of the triage exercise:
	 Problems that the rescuers encountered during triage
	 How it felt to be under pressure to conduct triage within such a short period of time
	Relate the rescuers' feelings about their time constraints to the pressure they will feel under actual conditions. Explain that they will learn ways to control some of their stresses in a later session.
?	Does anyone have questions about triage?
Be sensitive to the participants and the difficulty of these decisions during a catastrophic event.	Emphasize that planning and organization are necessary to do the greatest good for the greatest number of victims.



UNIT 3: DISASTER MEDICAL OPERATIONS — PART 1

INSTRUCTOR GUIDANCE	CONTENT
Homework Assignment 1. Read unit to be covered in next session 2. Bring necessary supplies for the next session 3. Wear appropriate clothes for the next session CERT flacio Training Unit 2. CERT flacio Training Unit 2. CERT flacio Training Unit 3. Service Part 1 S27 Display Slide 3-27	 The procedure for conducting triage evaluations involves checking: The airway and breathing rate Circulation and bleeding Mental status Remind the participants that disaster medical operations require careful planning, teamwork, and practice. Urge them to take advantage of community-wide disaster exercises whenever they are scheduled. Homework Assignment Ask the participants to read and become familiar with Unit 4: Disaster Medical Operations — Part 2 before the next session. Remind the participants to bring a blanket, roller gauze, adhesive tape, duct tape, and cardboard to the next session. Thank everyone for attending this session.

CERT BASIC TRAINING: INSTRUCTOR GUIDE