

---

# UNIT 4: DISASTER MEDICAL OPERATIONS

## — PART 2

---

---

**In this unit you will learn about:**

- **Public Health Considerations:** How to maintain hygiene and sanitation.
- **Functions of Disaster Medical Operations:** What the five major functions of disaster medical operations are and how they are set up.
- **Disaster Medical Treatment Areas:** How to establish them and what their functions are.
- **Patient Evaluation:** How to perform a head-to-toe assessment to identify and treat injuries.
- **Basic Treatment — How to:**
  - Treat burns
  - Dress and bandage wounds
  - Treat fractures, dislocations, sprains, and strains
  - Treat hypothermia
  - Treat heat-related injuries
  - Control nasal bleeding
  - Treat bites and stings

[This page intentionally left blank]

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

<b>OBJECTIVES</b>	<p>At the conclusion of this unit, the participants should be able to:</p> <ul style="list-style-type: none"><li>▪ Take appropriate sanitation measures to help protect public health.</li><li>▪ Perform head-to-toe patient assessments.</li><li>▪ Establish a treatment area.</li><li>▪ Apply splints to suspected fractures and sprains and employ basic treatments for other injuries.</li></ul>
<b>SCOPE</b>	<p>The scope of this unit will include:</p> <ul style="list-style-type: none"><li>▪ Introduction and Unit Overview</li><li>▪ Public Health Considerations</li><li>▪ Functions of Disaster Medical Operations</li><li>▪ Establishing Medical Treatment Areas</li><li>▪ Conducting Head-to-Toe Assessments</li><li>▪ Treating Burns</li><li>▪ Wound Care</li><li>▪ Treating Fractures, Dislocations, Sprains, and Strains</li><li>▪ Nasal Injuries</li><li>▪ Treating Cold-Related Injuries</li><li>▪ Treating Heat-Related Injuries</li><li>▪ Bites and Stings</li><li>▪ Unit Summary</li></ul>
<b>ESTIMATED COMPLETION TIME</b>	<p>3 hours</p>
<b>TRAINING METHODS</b>	<p>The lead instructor will begin this session by welcoming the participants to Unit 4: Disaster Medical Operations — Part 2, and will introduce the instructors for the session. The instructor will then present a brief review of Disaster Medical Operations — Part 1, covering the “killers” and triage procedures. Next, the instructor will present a brief overview of the unit topics. This section will end with a presentation of the unit learning objectives.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

**TRAINING  
METHODS  
(CONTINUED)**

Then, the instructor will present the public health considerations for disaster medical operations, including sanitation, hygiene, and water purification.

Then, the instructor will present an overview of how disaster medical operations are organized and the responsibilities of each operational function.

The instructor will then discuss where to establish a treatment area and how the treatment area should be organized.

Next, the instructor will explain and demonstrate the procedures for conducting head-to-toe patient assessments using another instructor, a participant, or a mannequin. The participants will then be assigned into pairs so that they can practice head-to-toe patient assessments under observation. The instructors will observe the participants to ensure that they are performing the skills as taught.

Next, the instructor will describe the treatment of burns and the care of wounds to avoid infections. Topics will include the difference between bandages and dressings and bandaging techniques. The instructor will demonstrate using dressings to control bleeding and bandaging techniques using the mannequin.

The next section will deal with the treatment of fractures, sprains, and strains. An exercise will give the participants the opportunity to practice applying splints. The exercise will be followed by segments on nasal injuries, how to diagnose and treat hypothermia, heat-related injuries, and insect bites and stings. The unit will conclude with a summary.

---

**RESOURCES  
REQUIRED**

- *Community Emergency Response Team Instructor Guide*
- *Community Emergency Response Team Participant Manual*
- PowerPoint slides 4-0 through 4-57

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

**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 (optional)
- One stretcher
- Non-latex examination gloves (1 pair per participant)
- 4- by 4-inch dressings (1 for each participant)
- One triangular bandage per participant
- Splinting material (cardboard, magazines, pieces of lath, pillows, towels, etc.)
- Note cards
- Duct tape

---

**PREPARATION**

Working with a representative of the community in which you will be teaching, identify any potentially culturally sensitive topics in this module. Develop strategies for presenting such topics in ways that will be engaging and appropriate for the participants.

For example, in some cultures, discussing death is taboo. Physical contact is another potentially sensitive topic that participants will encounter in this module with the *head-to-toe assessment* activity.

Prepare participants by introducing such topics gradually and with an awareness of the sensitivity of the audience. Avoid making jokes or being flippant regarding such topics.

---

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

**NOTES**



A suggested time plan for this unit is as follows:

Introduction and Unit Overview.....	15 minutes
Public Health Considerations.....	5 minutes
Functions of Disaster Medical Operations .....	5 minutes
Establishing Medical Treatment Areas .....	15 minutes
Conducting Head-to-Toe Assessments .....	25 minutes
Treating Burns .....	20 minutes
Wound Care .....	20 minutes
Treating Fractures, Dislocations, Sprains, and Strains.....	40 minutes
Nasal Injuries.....	10 minutes
Treating Cold-Related Injuries.....	5 minutes
Treating Heat-Related Injuries.....	5 minutes
Insect Bites and Stings .....	5 minutes
Unit Summary.....	5 minutes

Total Time: 3 hours

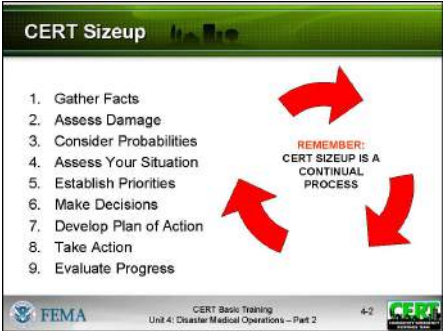


---

# Unit 4: Disaster Medical Operations — Part 2

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="188 556 626 884"></p> <p data-bbox="188 921 444 957"><b>Display Slide 4-0</b></p> <p data-bbox="188 995 626 1323"></p> <p data-bbox="188 1360 440 1396"><b>Display Slide 4-1</b></p>	<p data-bbox="657 531 1235 567"><b><i>Introductions and Unit Overview</i></b></p> <p data-bbox="657 640 797 674"><b>Welcome</b></p> <p data-bbox="657 695 1438 764">Introduce this unit by welcoming the participants to Unit 4 of the <i>CERT Basic Training</i>.</p> <p data-bbox="657 806 1401 909">Introduce the instructors for this session and ask any new instructors to describe briefly their experience in medical operations.</p> <p data-bbox="657 999 1159 1033">Review the main points from Unit 3:</p> <p data-bbox="657 1073 1422 1176">Airway obstruction, excessive bleeding, and shock are “killers.” Victims with signs of these life-threatening conditions must receive <u>immediate</u> treatment.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**





---

INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 359 628 688"></div> <p data-bbox="188 726 444 762"><b>Display Slide 4-2</b></p> <div data-bbox="188 1220 266 1289"></div> <p data-bbox="188 1329 444 1362">Correct response:</p> <p data-bbox="188 1402 444 1436">Head-Tilt/Chin-Lift</p> <div data-bbox="188 1478 266 1547"></div> <p data-bbox="188 1587 444 1621">Correct response:</p> <p data-bbox="188 1661 444 1694">Survey the area.</p>	<p data-bbox="659 363 1398 468">Triage has proven to be an effective way to evaluate and prioritize the treatment of mass casualties in a disaster situation.</p> <p data-bbox="659 510 1382 579">Remind the participants that, as always, sizeup is a critical component of any disaster operation:</p> <ul data-bbox="659 600 1089 1052" style="list-style-type: none"><li>▪ Gather Facts</li><li>▪ Assess and Communicate</li><li>▪ Consider Probabilities</li><li>▪ Assess Your Own Situation</li><li>▪ Establish Priorities</li><li>▪ Make Decisions</li><li>▪ Develop Plan of Action</li><li>▪ Take Action</li><li>▪ Evaluate Progress</li></ul> <p data-bbox="659 1108 1398 1142">Briefly review Disaster Medical Operations — Part 1.</p> <p data-bbox="659 1215 1333 1285"><b>What method is used to open the airway of a victim?</b></p> <p data-bbox="659 1478 1430 1547"><b>What is the first action to take when approaching a victim?</b></p>



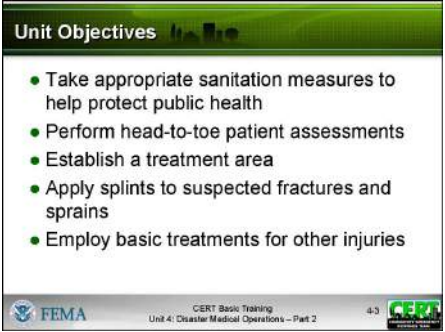

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---



INSTRUCTOR GUIDANCE	CONTENT
	<b>What techniques are available to aid in the control of bleeding?</b>
<p>Correct responses:</p> <ul style="list-style-type: none"><li>▪ Direct pressure</li><li>▪ Elevation</li><li>▪ Pressure points</li></ul>	
	<b>When approaching a victim, you should always do three things before treatment. What should you do?</b>
<p>Correct response:</p> <ul style="list-style-type: none"><li>▪ Introduce yourself.</li><li>▪ Name your affiliation.</li><li>▪ Ask permission to treat.</li></ul>	
	<b>What safety equipment should CERT members ALWAYS wear?</b>
<p>Correct responses:</p> <ul style="list-style-type: none"><li>▪ Helmet</li><li>▪ Goggles</li><li>▪ Gloves (work and non-latex exam)</li><li>▪ N95 mask</li><li>▪ Sturdy shoes or boots</li></ul>	
	<b>Does anyone have questions about the information presented in the previous unit?</b>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

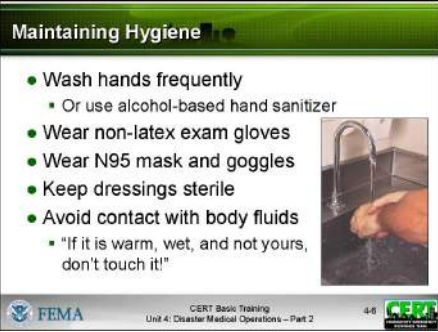
INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Unit Objectives</b></p> <ul style="list-style-type: none"><li>• Take appropriate sanitation measures to help protect public health</li><li>• Perform head-to-toe patient assessments</li><li>• Establish a treatment area</li><li>• Apply splints to suspected fractures and sprains</li><li>• Employ basic treatments for other injuries</li></ul> <p>FEMA CERT Basic Training Unit 4: Disaster Medical Operations – Part 2 4-3</p> <p><b>Display Slide 4-3</b></p>  <p><b>Unit Topics</b></p> <ul style="list-style-type: none"><li>• Public Health Considerations</li><li>• Functions of Disaster Medical Operations</li><li>• Establishing Medical Treatment Areas</li><li>• Conducting Head-to-Toe Assessments</li><li>• Treating Burns</li><li>• Wound Care</li><li>• Treating Fractures, Dislocations, Sprains, and Strains</li><li>• Nasal Injuries</li><li>• Treating Cold-Related Injuries</li><li>• Treating Heat-Related Injuries</li><li>• Bites and Stings</li></ul> <p>FEMA CERT Basic Training Unit 4: Disaster Medical Operations – Part 2 4-4</p> <p><b>Display Slide 4-4</b></p>	<p><b>Unit Objectives</b></p> <p>Tell the group that at the end of this unit, they should be able to:</p> <ul style="list-style-type: none"><li>▪ Take appropriate sanitation measures to help protect public health.</li><li>▪ Perform head-to-toe patient assessments.</li><li>▪ Establish a treatment area.</li><li>▪ Apply splints to suspected fractures and sprains.</li><li>▪ Employ basic treatments for other injuries.</li></ul> <p><b>Unit Topics</b></p> <p>Introduce the unit topics by telling the participants that this unit will provide them with the information for performing treatment, setting up a medical treatment area, and transporting victims.</p> <p>Explain that the unit topics are:</p> <ul style="list-style-type: none"><li>▪ Public Health Considerations</li><li>▪ Functions of Disaster Medical Operations</li><li>▪ Establishing Medical Treatment Areas</li><li>▪ Conducting Head-to-Toe Assessments</li><li>▪ Treating Burns</li><li>▪ Wound Care</li><li>▪ Treating Fractures, Dislocations, Sprains, and Strains</li><li>▪ Nasal Injuries</li><li>▪ Treating Cold-Related Injuries</li><li>▪ Treating Heat-Related Injuries</li><li>▪ Bites and Stings</li></ul>

COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2

INSTRUCTOR GUIDANCE	CONTENT
   <p><b>Display Slide 4-5</b></p>	<p>Emphasize the need for practice by telling the participants that they will have the opportunity to practice many of the treatment techniques that they will learn.</p> <p><b>Does anyone have any questions about what will be covered in this unit?</b></p> <p><b><i>Public Health Considerations</i></b></p> <p>Introduce this topic by reminding the group that, when disaster victims are sheltered together for treatment, public health becomes a concern. Measures must be taken, both by individual CERT members and CERT programs, to avoid the spread of disease.</p> <p>Explain that the primary public health measures include:</p> <ul style="list-style-type: none"><li>▪ Maintaining proper hygiene</li><li>▪ Maintaining proper sanitation</li><li>▪ Purifying water (if necessary)</li><li>▪ Preventing the spread of disease</li></ul>

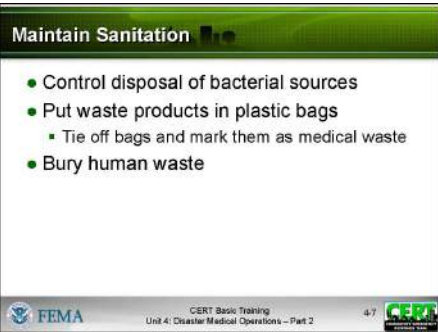
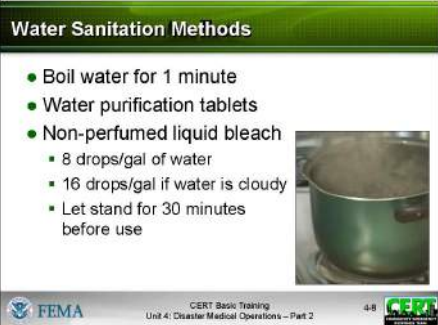
**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 464 626 793"></p> <p data-bbox="191 831 444 863"><b>Display Slide 4-6</b></p>	<p data-bbox="659 363 967 394"><b>Maintaining Hygiene</b></p> <p data-bbox="659 459 1438 558">Introduce hygiene by telling the group that maintenance of proper personal hygiene is critical even under makeshift conditions.</p> <p data-bbox="659 596 1409 663">Tell the group that some steps that individuals should take to maintain hygiene are to:</p> <ul data-bbox="659 684 1438 1688" style="list-style-type: none"><li data-bbox="659 684 1438 814">▪ <u>Wash hands frequently</u> using soap and water. Hand washing should be thorough (at least 15 to 20 seconds of vigorous rubbing on all surfaces of the hand).</li><li data-bbox="708 842 1438 1150">• Alcohol-based hand sanitizers — which don't require water — are a good alternative to hand washing. The Centers for Disease Control (CDC) recommends products that are at least 60% alcohol. To use an alcohol-based hand sanitizer, apply about ½ teaspoon of the product to the palm of your hand. Rub your hands together, covering all surfaces, until hands are dry.</li><li data-bbox="659 1192 1438 1398">▪ <u>Wear non-latex exam gloves at all times</u>. Change or disinfect gloves after examining and/or treating each patient. As explained earlier, under field conditions, individuals can use rubber gloves that are sterilized between treating victims using bleach and water (one part bleach to 10 parts water).</li><li data-bbox="659 1419 1166 1451">▪ <u>Wear an N95 mask and goggles</u>.</li><li data-bbox="659 1472 1409 1570">▪ <u>Keep dressings sterile</u>. Do not remove the overwrap from dressings until use. After opening, use the entire package of dressing, if possible.</li><li data-bbox="659 1591 1438 1688">▪ <u>Thoroughly wash areas that come in contact with body fluids</u> with soap and water or diluted bleach as soon as possible.</li></ul> <p data-bbox="659 1766 1373 1833">Stress the importance of practicing proper hygiene techniques even during exercises.</p>



**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 569 626 898"></p> <p data-bbox="191 940 444 972"><b>Display Slide 4-7</b></p>	<p data-bbox="659 363 997 394"><b>Maintaining Sanitation</b></p> <p data-bbox="659 457 1442 527">Introduce proper sanitation by cautioning the group that poor sanitation is also a major cause of infection.</p> <p data-bbox="659 569 1406 638">Explain that CERT medical operations personnel can maintain sanitary conditions by:</p> <ul data-bbox="659 653 1442 993" style="list-style-type: none"><li>▪ Controlling the disposal of bacterial sources (e.g., soiled exam gloves, dressings, etc.)</li><li>▪ Putting waste products in plastic bags, tying off the bags, and marking them as medical waste. Keep medical waste separate from other trash, and dispose of it as hazardous waste.</li><li>▪ Burying human waste. Select a burial site away from the operations area and mark the burial site for later cleanup.</li></ul> <p data-bbox="659 1052 1386 1121">Again, stress the need to practice proper sanitation, even during exercises.</p>
<p data-bbox="191 1297 626 1619"></p> <p data-bbox="191 1661 444 1692"><b>Display Slide 4-8</b></p>	<p data-bbox="659 1192 932 1224"><b>Water Purification</b></p> <p data-bbox="659 1287 1438 1497">Introduce water purification by pointing out to the group that potable water supplies are often in short supply or are not available in a disaster. Remind the group to purify water for drinking, cooking, and medical use by heating it to a rolling boil for 1 minute or by using water purification tablets or non-perfumed liquid bleach.</p> <p data-bbox="659 1539 1089 1570">The bleach to water ratios are:</p> <ul data-bbox="659 1591 1386 1682" style="list-style-type: none"><li>▪ 8 drops of bleach per gallon of water</li><li>▪ 16 drops per gallon if the water is cloudy or dirty</li></ul> <p data-bbox="659 1696 1433 1833">Let the bleach and water solution stand for 30 minutes. Note that if the solution does not smell or taste of bleach, add another six drops of bleach, and let the solution stand for 15 minutes before using.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

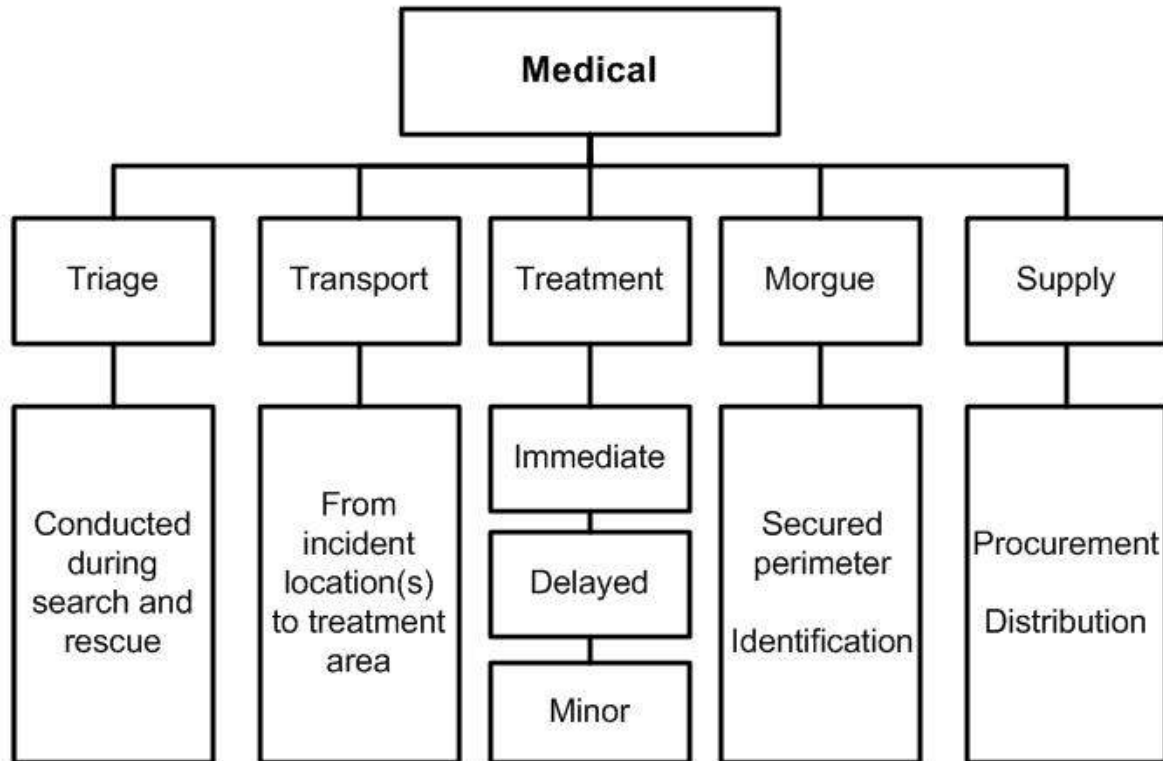
---

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 856 266 930"></p> <p data-bbox="191 1129 626 1455"></p> <p data-bbox="191 1493 444 1528"><b>Display Slide 4-9</b></p>	<p data-bbox="657 363 1437 499">Also tell the participants that rescuers should not put anything on wounds other than purified water. The use of other solutions (e.g., hydrogen peroxide) on wounds must be the decision of trained medical personnel.</p> <p data-bbox="657 573 1166 606"><b>Preventing the Spread of Disease</b></p> <p data-bbox="657 667 1414 804">Stress that CERT members <u>must use non-latex exam gloves, goggles, and an N95 mask during all medical operations</u> and that they must cover all open wounds as a way of preventing the spread of infection.</p> <p data-bbox="657 846 1417 947"><b>Does anyone have any questions about the public health considerations related to disaster medical operations?</b></p> <p data-bbox="657 1035 1393 1068"><b><i>Functions of Disaster Medical Operations</i></b></p> <p data-bbox="657 1129 1422 1192">Point out that there are five major functions of disaster medical operations:</p> <ul data-bbox="657 1213 1437 1724" style="list-style-type: none"><li>▪ <b><u>Triage</u></b>: The initial assessment and sorting of victims for treatment based on the severity of their injuries</li><li>▪ <b><u>Treatment</u></b>: The disaster medical services provided to victims</li><li>▪ <b><u>Transport</u></b>: The movement of victims from incident location to the treatment area</li><li>▪ <b><u>Morgue</u></b>: The temporary holding area for victims who have died at the treatment area. Those who are tagged as “Dead” during triage are not removed from the incident site.</li><li>▪ <b><u>Supply</u></b>: The hub for crucial supply procurement and distribution</li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

INSTRUCTOR GUIDANCE	CONTENT
<p><b>PM, P. 4-5</b></p>	<p>Refer the participants to the <i>Disaster Medical Operations Organization</i> chart in the Participant Manual.</p> <p>Explain that triage and transport are functions of both search and rescue operations and medical operations.</p>
<p><b>PM, P. 4-5</b></p>	<p align="center"><b>Disaster Medical Operations Organization</b></p>


**Disaster Medical Operations Organization**



Disaster Medical Operations Organization showing the functions of disaster medical operations: Triage, Transport, Treatment, Morgue, and Supply

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

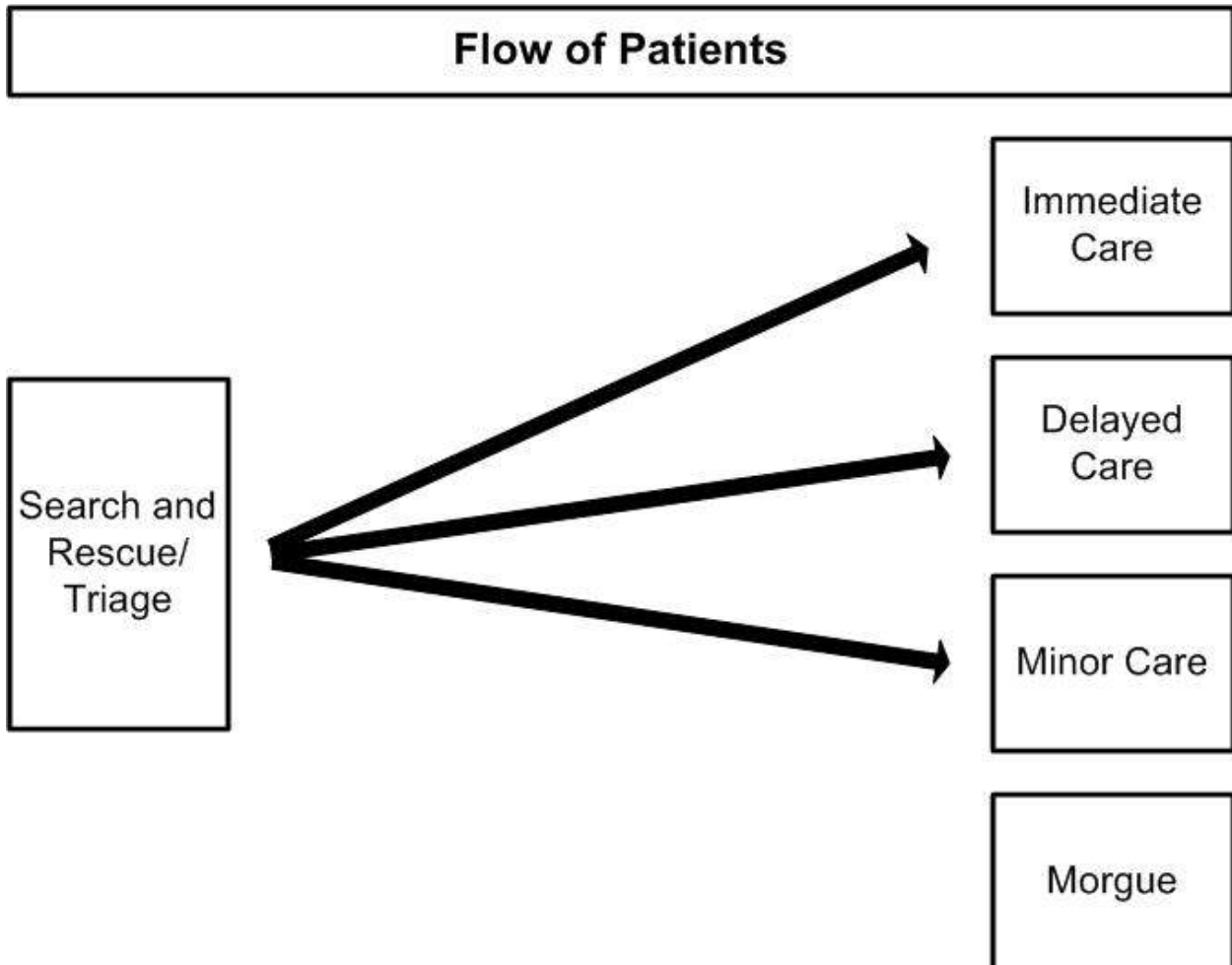
INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 472 626 800"></p> <p data-bbox="191 842 461 873"><b>Display Slide 4-10</b></p> <p data-bbox="191 1024 626 1161">Present some “what-if” situations to illustrate the principles demonstrated by the graphic.</p>	<p data-bbox="659 373 1328 405"><b><i>Establishing Medical Treatment Areas</i></b></p> <p data-bbox="659 485 1438 621">Tell participants that because time is critical when CERTs activate, CERT medical operations personnel will need to select a site and set up a treatment area as soon as injured victims are confirmed.</p> <p data-bbox="659 642 1365 741">Determining the best location(s) for the CERT treatment area should include the following overall considerations:</p> <ul data-bbox="659 768 1341 884" style="list-style-type: none"><li>▪ Safety for rescuers and victims</li><li>▪ Most effective use of resources, e.g., CERT members themselves, time, medical supplies</li></ul> <p data-bbox="659 993 1146 1024"><b>Safety for Rescuers and Victims</b></p> <p data-bbox="659 1066 1438 1314">Explain that as victims are located, rescued, and triaged, they are moved to a location where they can be treated. The severity of the damage and the safety of the immediate environment determine where the initial CERT treatment area should be located. Remind participants that in all cases their individual safety is the number one priority.</p> <ul data-bbox="659 1341 1438 1749" style="list-style-type: none"><li>▪ In structures with light damage, CERT members triage the victims as they are located. Further medical treatment is performed in a safe location inside the structure where victims are organized according to the extent of their injuries.</li><li>▪ In structures with moderate damage, CERT members also triage the victims as they are located; however, victims are sent to a medical treatment location that is a safe distance from the incident location. Victims are organized according to the extent of their injuries.</li></ul>



**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

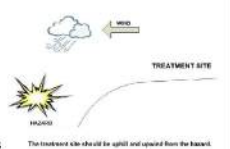

INSTRUCTOR GUIDANCE	CONTENT
<p><b>PM, P. 4-7</b></p>	<p>Tell participants that whether the treatment area is set up inside or a safe distance from the structure, a morgue may need to be set up as a temporary holding area for victims who die at the treatment area.</p> <p>Refer the participants to the <i>Flow of Patients</i> chart in the Participant Manual.</p>

<p><b>PM, P. 4-7</b></p>	<p align="center"><b>Flow of Patients</b></p>
--------------------------	---



**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<p><b>Treatment Area Site Selection</b></p> <ul style="list-style-type: none"><li>• The site selected should be:<ul style="list-style-type: none"><li>▪ In a safe area, free of hazards and debris</li><li>▪ Upwind, uphill, and upstream (if possible) from hazard zone(s)</li><li>▪ Accessible by transportation vehicles</li><li>▪ Expandable</li></ul></li></ul>  <p style="text-align: center;"><small>CERT Basic Training Unit 4: Disaster Medical Operations – Part 2      4-11</small></p>	<p>Explain that in addition to the severity of the damage to the structure where victims are found, there are two other important safety considerations:</p> <ul style="list-style-type: none"><li>▪ The treatment area itself must be free of hazards and debris.</li><li>▪ The site should be close to but uphill and upwind from the hazard zone.</li></ul>
<p><b>Display Slide 4-11</b></p> <p><b>Most Effective Use of CERT Resources</b></p> <ul style="list-style-type: none"><li>• To help meet the challenge of limited resources, CERT may need to establish:<ul style="list-style-type: none"><li>▪ Decentralized medical treatment location (more than one location)</li><li>▪ Centralized medical treatment location (one location)</li></ul></li></ul>  <p style="text-align: center;"><small>CERT Basic Training Unit 4: Disaster Medical Operations – Part 2      4-12</small></p>	<p><b>Most Effective Use of CERT Resources</b></p> <p>Explain that, in addition to the safety of rescuers and victims, a second overall consideration for setting up treatment areas is how to make the best use of CERT resources, e.g., CERT members themselves, time, medical supplies, and equipment.</p> <p>Tell participants that, to help meet the challenge of limited resources, particularly if initial treatment operations will continue for some time, CERT may need decentralized treatment locations and/or may establish one central medical treatment location, depending on the circumstances.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

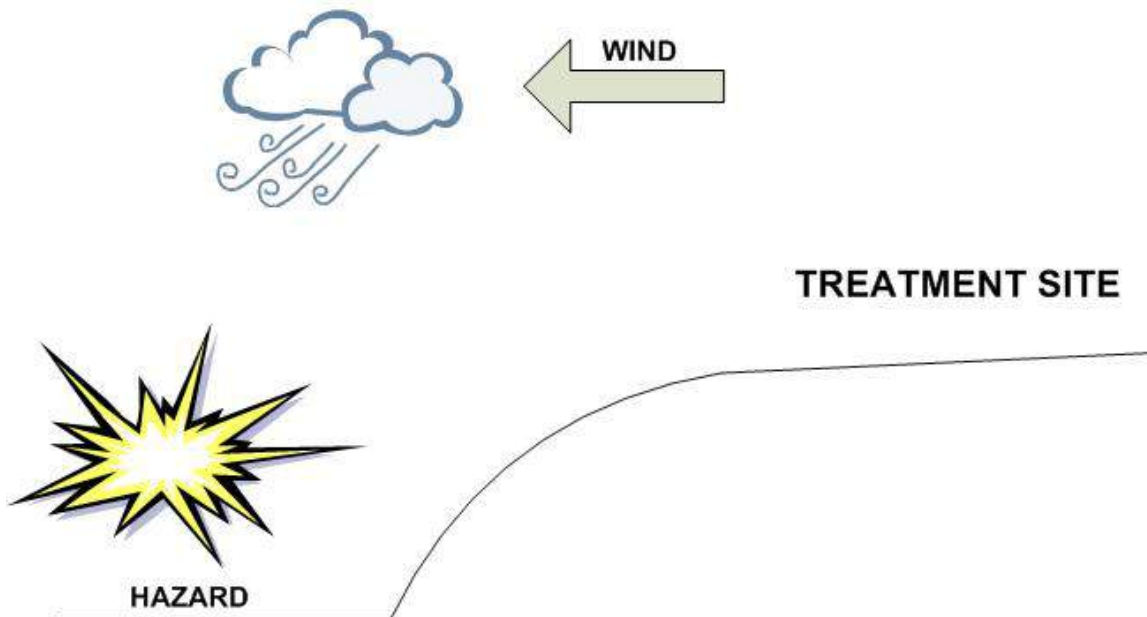
---

INSTRUCTOR GUIDANCE	CONTENT
	<p>The CERT may need to include one or both in their medical operations plan:</p> <ul style="list-style-type: none"><li>▪ Decentralized Treatment Sites: In a widespread event with many injured, it is sometimes necessary to set up and maintain more than one medical treatment location, especially when a central treatment location would be a considerable distance from the initial treatment site.<ul style="list-style-type: none"><li>• A medical treatment location would be set up close to, but a safe distance from, each of the damage sites. Each of the treatment locations would include areas for Immediate, Delayed, and Minor victims and a morgue.</li><li>• Victims remain under treatment at the location until they can be transported to a location for professional medical care or to the CERT's main treatment area.</li></ul></li> <li>▪ Centralized Treatment Site: In an event with one or a few injured victims at each of a number of sites, the CERT may need to establish <u>one central medical treatment location</u>. A centralized location may need to be set up even when there are decentralized sites established.<ul style="list-style-type: none"><li>• The location would include treatment areas for Immediate, Delayed, and Minor victims, and a morgue.</li><li>• Victims are moved from where they were rescued, triaged, and initially treated to the central location, and remain under treatment there until they can be transported to a location for professional medical treatment.</li><li>• A central medical treatment location allows for effective use of resources since a limited number of CERT medical operation personnel in one location can take care of a greater number of victims.</li></ul></li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

INSTRUCTOR GUIDANCE	CONTENT
<p><b>PM, P. 4-10</b></p>	<ul style="list-style-type: none"> <li>• EMS or other medical professionals will generally be able to transport the injured more efficiently from one central location than from multiple decentralized locations.</li> <li>▪ Whether a treatment site is centralized or one of a number of decentralized sites, the location(s) selected should be:               <ul style="list-style-type: none"> <li>• Accessible by transportation vehicles (ambulances, trucks, helicopters, etc.)</li> <li>• Expandable</li> </ul> </li> </ul> <p>Refer the participants to the <i>Treatment Area Site Selection</i> diagram in the Participant Manual.</p>


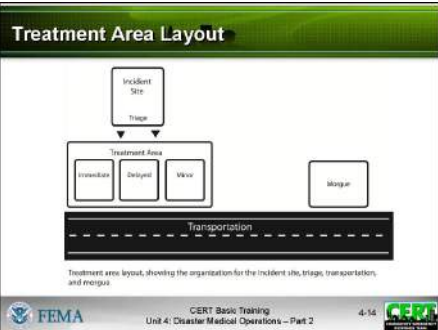
<p><b>PM, P. 4-10</b></p>	<p align="center"><b>Treatment Area Site Selection</b></p>
---------------------------	--



**The treatment site should be uphill and upwind from the hazard.**

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 472 626 793"></p> <p data-bbox="191 835 462 867"><b>Display Slide 4-13</b></p> <p data-bbox="191 934 597 1075">If your program uses colored tarps to delineate medical treatment areas, explain the use of the tarps.</p> <p data-bbox="191 1138 626 1465"></p> <p data-bbox="191 1507 462 1539"><b>Display Slide 4-14</b></p>	<p data-bbox="659 363 1006 394"><b>Treatment Area Layout</b></p> <p data-bbox="659 462 1425 562">Introduce this section by stressing that the treatment area must be protected and clearly delineated. Signs should be used to identify the subdivisions of the area:</p> <ul data-bbox="659 583 1250 766" style="list-style-type: none"><li>▪ “I” for Immediate care</li><li>▪ “D” for Delayed care</li><li>▪ “M” for Minor injuries/walking wounded</li><li>▪ “DEAD” for the morgue</li></ul> <p data-bbox="659 924 1425 991">Point out that a clearly marked treatment area will help in placing victims in the correct location.</p> <p data-bbox="659 1134 1404 1201">Explain that the “I” and “D” areas should be relatively close to each other to allow:</p> <ul data-bbox="659 1222 1437 1423" style="list-style-type: none"><li>▪ Verbal communication between workers in the treatment areas</li><li>▪ Shared access to medical supplies (which should be cached in a central location)</li><li>▪ Easy transfer of patients whose status has changed</li></ul> <p data-bbox="659 1444 1437 1579">Emphasize that victims who have been identified with minor injuries may choose to stay at the treatment area or leave. If they stay, they can assist CERT personnel. If they leave, it should be documented.</p> <p data-bbox="659 1621 1396 1717">Explain that patients in the treatment area should be positioned in a head-to-toe configuration, with 2 to 3 feet between victims.</p> <p data-bbox="659 1759 1404 1864">Stress to the participants that the morgue site should be secure, away from and not visible from the treatment area.</p>

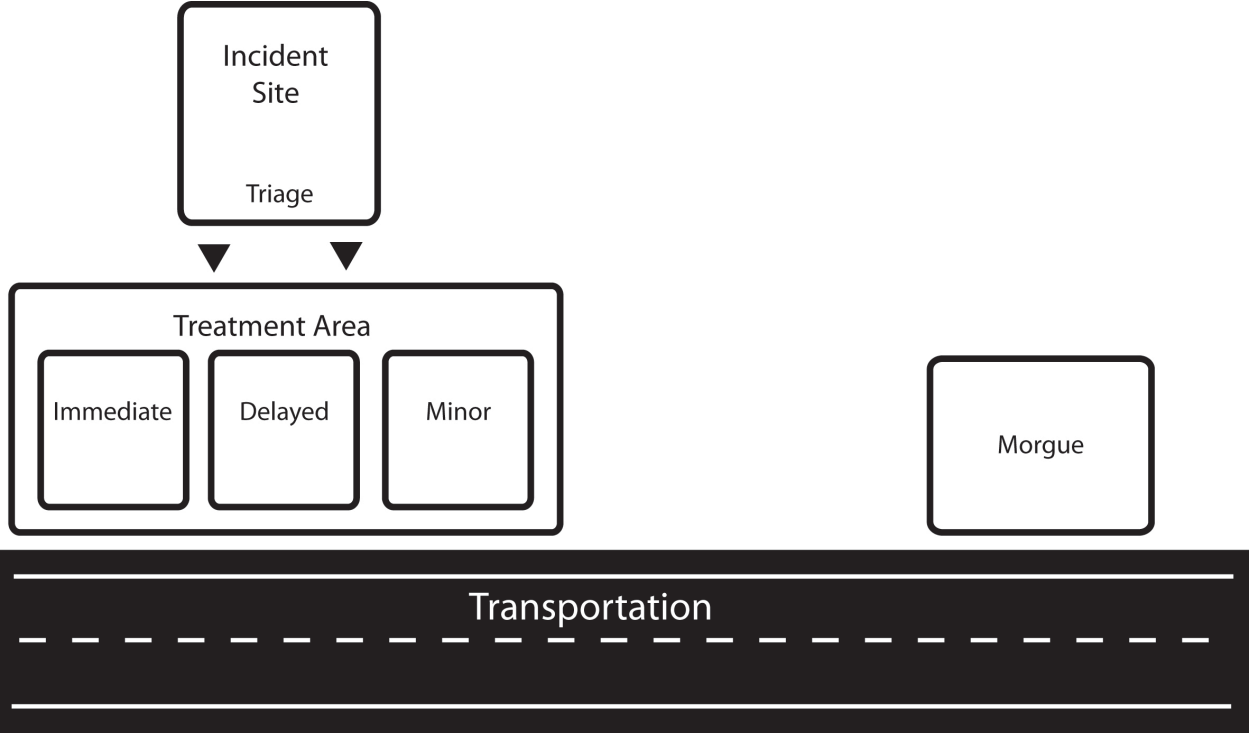
**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<p><b>PM, P. 4-12</b></p>	<p>Finally, explain that this system will provide:</p> <ul style="list-style-type: none"><li>▪ Effective use of space</li><li>▪ Effective use of available personnel. As a worker finishes one head-to-toe assessment, he or she turns around and finds the head of the next patient.</li></ul> <p>Refer the participants to the <i>Treatment Area Layout</i> diagram in the Participant Manual.</p> <p>Note that the distance shown between the Incident Site/Triage and the Treatment Area will depend on whether or not the treatment location is site specific or more centralized in the CERT's service area.</p>

COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2



PM, P. 4-12	Treatment Area Site Layout
-------------	----------------------------



Treatment area layout, showing the organization for the incident site, triage, transportation, and morgue

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 737 626 1066"></p> <p data-bbox="191 1081 462 1117"><b>Display Slide 4-15</b></p> <p data-bbox="191 1360 267 1434"></p>	<p data-bbox="657 363 1096 396"><b>Treatment Area Organization</b></p> <p data-bbox="657 432 1437 533">Introduce this section by telling the participants that the CERT must assign leaders to maintain control in each of the medical treatment areas. These leaders will:</p> <ul data-bbox="657 554 1274 674" style="list-style-type: none"><li>▪ Ensure orderly victim placement</li><li>▪ Direct assistants to conduct head-to-toe assessments</li></ul> <p data-bbox="657 730 1388 800">Emphasize the need for thorough documentation of victims in the treatment area, including:</p> <ul data-bbox="657 821 1437 1100" style="list-style-type: none"><li>▪ Available identifying information</li><li>▪ Description (age, sex, body build, estimated height)</li><li>▪ Clothing</li><li>▪ Injuries</li><li>▪ Treatment</li><li>▪ Transfer location</li></ul> <p data-bbox="657 1171 1421 1310">Recommend strongly that the participants take part in practice exercises so that they can develop a good operational plan and practice rapid treatment area setup.</p> <p data-bbox="657 1352 1421 1421"><b>Does anyone have any questions about treatment area site selection or organization?</b></p> <p data-bbox="657 1486 1356 1556">Tell the participants that next they will learn about head-to-toe assessments.</p> <p data-bbox="657 1598 1372 1705">Explain that the last unit dealt with the procedures conducted in triage and that this unit will focus on treatment of triaged victims.</p>




**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
	<p data-bbox="659 369 1341 411"><b><i>Conducting Head-to-Toe Assessments</i></b></p> <p data-bbox="659 470 1425 716">Introduce this topic by telling the group that the first steps that they will take when working with a victim will be to conduct triage and rapid treatment. After all victims in an area have been triaged and moved to a medical treatment area, CERT members will begin a thorough head-to-toe assessment of the victim's condition.</p> <p data-bbox="659 762 1430 827">Note that techniques for moving victims will be covered in Unit 5.</p> <p data-bbox="659 873 1393 938">Remind the group that, during triage, they looked for "the killers."</p> <ul data-bbox="659 957 979 1094" style="list-style-type: none"><li>▪ Airway obstruction</li><li>▪ Excessive bleeding</li><li>▪ Signs of shock</li></ul> <p data-bbox="659 1150 1430 1287">Stress that a head-to-toe assessment goes beyond the "killers" to try to gain more information to determine the nature of the victim's injury. The entire assessment must be performed before initiating treatment.</p>


**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 369 628 695"><p><b>Head-to-Toe Assessment</b></p><ul style="list-style-type: none"><li>Objectives of head-to-toe assessment:<ul style="list-style-type: none"><li>Determine extent of injuries</li><li>Determine type of treatment needed</li><li>Document injuries</li></ul></li></ul><p>FEMA CERT Basic Training Unit 4: Disaster Medical Operations - Part 2 4-16 CERT</p></div> <p><b>Display Slide 4-16</b></p> <p>(Field Conditions) If you wish, suggest that, if the medical team runs out of non-latex exam gloves, they can use rubber gloves and clean them between treating victims in a bucket of bleach-and-water solution (1 part bleach to 10 parts water) to reduce the risk of cross contamination.</p>	<p><b>Objectives of Head-to-Toe Assessments</b></p> <p>Explain that the objectives of a head-to-toe assessment are to:</p> <ul style="list-style-type: none"><li>Determine, as clearly as possible, the extent of injuries</li><li>Determine what type of treatment is needed</li><li>Document injuries</li></ul> <p>Stress the importance of wearing safety equipment when conducting head-to-toe assessments.</p>

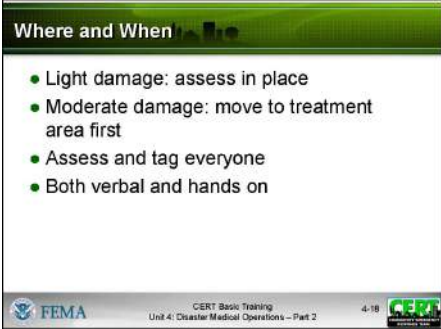
**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Display Slide 4-17</b></p>	<h3>What to Look for in Head-to-Toe Assessments</h3> <p>Tell the participants that the medical community uses the acronym DCAP-BTLS to remember what to look for when conducting a rapid assessment. DCAP-BTLS stands for the following:</p> <ul style="list-style-type: none"><li>▪ Deformities</li><li>▪ Contusions (bruising)</li><li>▪ Abrasions</li><li>▪ Punctures</li><li>▪ Burns</li><li>▪ Tenderness</li><li>▪ Lacerations</li><li>▪ Swelling</li></ul> <p>Explain that, when conducting a head-to-toe assessment, CERT members should look for DCAP-BTLS in all parts of the body.</p> <p>Remind the participants to provide <b>IMMEDIATE</b> treatment for life-threatening injuries.</p> <p>Emphasize that the participants should pay careful attention to how people have been hurt (the mechanism of injury) because it provides insight to probable injuries suffered.</p>


**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 478 626 804"></div> <p><b>Display Slide 4-18</b></p> <p>Tell the students that you will discuss light, moderate, and heavy damage in Unit 5.</p>	<p><b>Where and When to Conduct a Head-to-Toe Assessment</b></p> <p>Explain that a head-to-toe assessment can be done in place in a lightly damaged building. If the building is moderately damaged, the victim should be moved to a safe zone or to the treatment area for the head-to-toe assessment.</p> <p><b>How to Conduct a Head-to-Toe Assessment</b></p> <p>Tell the participants that, whenever possible, they should ask the person about any injuries, pain, bleeding, or other symptoms. Stress that, if the victim is conscious, CERT members should always ask permission to conduct the assessment. The victim has the right to refuse treatment.</p> <p>Emphasize the importance of talking with the conscious patient to reduce anxiety.</p> <p>Explain that head-to-toe assessments should be:</p> <ul style="list-style-type: none"><li>▪ Conducted on all victims, even those who seem all right</li><li>▪ Verbal (if the patient is able to speak)</li><li>▪ Hands-on. Do not be afraid to remove clothing to look.</li></ul>

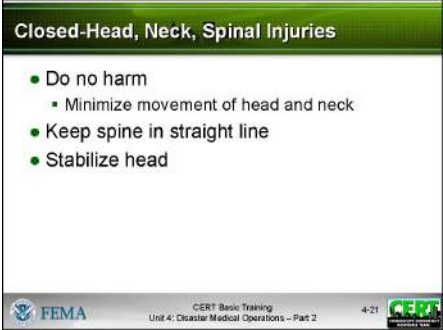
**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 369 625 422"><b>Conducting Head-to-Toe Assessment</b></p> <ul data-bbox="212 436 560 625" style="list-style-type: none"><li>● Pay careful attention</li><li>● Look, listen, and feel</li><li>● Check own hands for patient bleeding</li><li>● If you suspect a spinal injury in unconscious victims, treat accordingly</li><li>● Check PMS in all extremities</li><li>● Look for medical identification</li></ul> <p data-bbox="191 661 625 697">FEMA CERT Basic Training Unit 4: Disaster Medical Operations – Part 2 4-19</p> <p data-bbox="191 716 461 747"><b>Display Slide 4-19</b></p> <p data-bbox="191 831 625 884"><b>Order of Assessment</b></p> <ol data-bbox="212 898 332 1100" style="list-style-type: none"><li>1. Head</li><li>2. Neck</li><li>3. Shoulders</li><li>4. Chest</li><li>5. Arms</li><li>6. Abdomen</li><li>7. Pelvis</li><li>8. Legs</li></ol>  <p data-bbox="191 1123 625 1159">FEMA CERT Basic Training Unit 4: Disaster Medical Operations – Part 2 4-20</p> <p data-bbox="191 1194 461 1226"><b>Display Slide 4-20</b></p>	<p data-bbox="657 365 1382 499">Stress the need for conducting head-to-toe assessments systematically; doing so will make the procedure quicker and more accurate with each assessment. Remember to:</p> <ul data-bbox="657 520 1393 695" style="list-style-type: none"><li>▪ Pay careful attention</li><li>▪ Look, listen, and feel for anything unusual</li><li>▪ Suspect a spinal injury in all unconscious victims and treat accordingly</li></ul> <p data-bbox="657 709 1425 779">Remind the group to check their own hands for patient bleeding as they perform the head-to-toe assessment.</p> <p data-bbox="657 831 1365 936">Check body parts from the top to the bottom for continuity of bones and soft tissue injuries (DCAP-BTLS) in the following order:</p> <ol data-bbox="657 953 850 1339" style="list-style-type: none"><li>1. Head</li><li>2. Neck</li><li>3. Shoulders</li><li>4. Chest</li><li>5. Arms</li><li>6. Abdomen</li><li>7. Pelvis</li><li>8. Legs</li></ol> <p data-bbox="657 1402 1438 1472">Tell the participants that while conducting a head-to-toe assessment, CERT members should always check for:</p> <ul data-bbox="657 1493 1403 1604" style="list-style-type: none"><li>▪ PMS (Pulse, Movement, Sensation) in all extremities</li><li>▪ Medical ID emblems on bracelet or on neck chain</li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Display Slide 4-21</b></p>	<h3>Closed-Head, Neck, and Spinal Injuries</h3> <p>Introduce this section by explaining that when conducting head-to-toe assessments, rescuers may come across victims who have or may have suffered closed-head, neck, or spinal injuries.</p> <p>Define a closed-head injury for the participants as a concussion-type injury, as opposed to a laceration, although lacerations can be an indication that the victim has suffered a closed-head injury.</p> <p>Tell the group that the main objective when CERT members encounter suspected injuries to the head or spine is to <u>do no harm</u>. They should minimize movement of the head and spine while treating any other life-threatening conditions.</p> <p>Tell the group to keep the spine in a straight line when doing the head-to-toe assessment.</p> <p>Tell the participants that the signs of a closed-head, neck, or spinal injury most often include:</p> <ul style="list-style-type: none"><li>▪ Change in consciousness</li><li>▪ Inability to move one or more body parts</li><li>▪ Severe pain or pressure in head, neck, or back</li><li>▪ Tingling or numbness in extremities</li><li>▪ Difficulty breathing or seeing</li><li>▪ Heavy bleeding, bruising, or deformity of the head or spine</li><li>▪ Blood or fluid in the nose or ears</li><li>▪ Bruising behind the ear</li><li>▪ “Raccoon” eyes (bruising around eyes)</li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<p><b>PM, P. 4-18</b></p>	<ul style="list-style-type: none"><li>▪ “Uneven” pupils</li><li>▪ Seizures</li><li>▪ Nausea or vomiting</li><li>▪ Victim found under collapsed building material or heavy debris</li></ul> <p>Stress that if the victim is exhibiting any of these signs, he or she should be treated as having a closed-head, neck, or spinal injury.</p> <p>Refer the participants to the list of signs in the Participant Manual.</p>

**PM, P. 4-18**

**Signs of a Closed-Head, Neck, or Spinal Injury**

The signs of a closed-head, neck, or spinal injury most often include:

- Change in consciousness
- Inability to move one or more body parts
- Severe pain or pressure in the head, neck, or back
- Tingling or numbness in extremities
- Difficulty breathing or seeing
- Heavy bleeding, bruising, or deformity of the head or spine
- Blood or fluid in the nose or ears
- Bruising behind the ear
- “Raccoon” eyes (bruising around eyes)
- “Uneven” pupils
- Seizures
- Nausea or vomiting
- Victim found under collapsed building material or heavy debris




**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<p>Demonstrate “creative” in-line stabilization, using a table and towels.</p> <p>Ask the participants to brainstorm about materials in the classroom or in their vehicles that they might use to stabilize a head on a board.</p>             <p>Ask the group if someone would volunteer to be the “victim” in your demonstration of a head-to-toe assessment. Another instructor could also be the “victim.”</p>	<p><b>Stabilizing the Head</b></p> <p>Explain that in a disaster environment, ideal equipment is rarely available. CERT members may need to be creative by:</p> <ul style="list-style-type: none"><li>▪ Looking for materials that can be used as a backboard — a door, desktop, building materials — anything that might be available</li><li>▪ Looking for items that can be used to stabilize the head on the board — towels, draperies, or clothing — by tucking them snugly on either side of the head to immobilize it</li></ul> <p>Moving victims should only be done for the safety of the rescuer and victim or when professional help will be delayed and a medical treatment area is established to care for multiple victims.</p> <p><b>Stress that triage and head-to-toe assessments in a disaster setting are not day-to-day operations. Explain that, if the rescuer or victim is in immediate danger, safety is more important than any potential spinal injury. Rescuer and victim safety is the priority.</b></p> <p>Explain that techniques for moving victims with suspected spinal injury will be covered in Unit 5.</p> <p>Introduce the head-to-toe assessment demonstration.</p> <p><b>Demonstrate Head-to-Toe Assessment</b></p> <p>Demonstrate the head-to-toe assessment procedure, explaining each step to the class. Describe what the rescuer should look for at each step, and how and where the rescuer should place his or her hands in each step to best identify any injuries.</p>


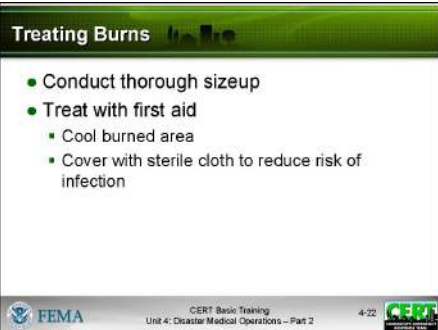
**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---


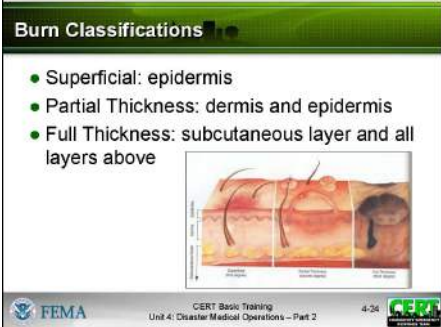
INSTRUCTOR GUIDANCE	CONTENT
 <p>This exercise should be completed as many times as possible with different “victims.”</p> <p>Observe each pair and correct improper techniques.</p>	<p>Emphasize the importance of doing the procedure in the same order on every victim.</p> <p><b>Does anyone have any questions about the head-to-toe assessment?</b></p> <p>Tell the group that they will now practice the procedure.</p> <p><b>Exercise: Conducting Head-to-Toe Assessments</b></p> <p><b><u>Purpose:</u></b> This exercise allows the participants to practice conducting head-to-toe assessments on each other.</p> <p><b><u>Instructions:</u></b> Follow the steps below to facilitate this exercise:</p> <ol style="list-style-type: none"><li>1. Assign the group to work in pairs. Attempt to pair each participant with someone with whom he or she is relatively unfamiliar. This helps to simulate a head-to-toe assessment in a disaster environment.</li><li>2. Ask the person on the right to be the victim and the person on the left to be the rescuer.</li><li>3. Ask the victims to lie on the floor on their backs and close their eyes.</li><li>4. Ask the rescuer to conduct a head-to-toe assessment on the victim, following the procedure demonstrated earlier. Have the rescuer repeat the head-to-toe assessment.</li><li>5. After the rescuer has made at least two observed head-to-toe assessments, ask the victim and rescuer to change roles.</li></ol>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
   <p><b>Display Slide 4-22</b></p>	<p>6. Allow each new rescuer at least two observed head-to-toe assessments.</p> <p>7. After all of the participants have had the opportunity to be the rescuer, discuss any problems or incorrect techniques that may have been demonstrated initially. Explain how to avoid the problems during emergencies.</p> <p><b>Does anyone have any additional questions about conducting head-to-toe assessments?</b></p> <p>Tell the group that the remainder of this unit will deal with the treatment of injuries.</p> <p><b><i>Treating Burns</i></b></p> <p>Remind the participants that, as always, the first step in treating burns is to conduct a thorough sizeup.</p> <p>A few examples of burn-related sizeup questions to ask are:</p> <ul style="list-style-type: none"><li>▪ What caused the burn?</li><li>▪ Is the danger still present?</li><li>▪ When did the burning cease?</li></ul> <p>Tell the group that the objectives of first aid treatment for burns are to:</p> <ul style="list-style-type: none"><li>▪ Cool the burned area</li><li>▪ Cover with a sterile cloth to reduce the risk of infection (by keeping fluids in and germs out)</li></ul>

COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2

INSTRUCTOR GUIDANCE	CONTENT
 <p>Slide 4-23: Burn Severity. Factors that affect burn severity:</p> <ul style="list-style-type: none"><li>Temperature of burning agent</li><li>Period of time victim exposed</li><li>Area of body affected</li><li>Size of area burned</li><li>Depth of burn</li></ul> <p>Includes a photo of a burn on a hand.</p>	<p>Explain that burns may be caused by heat, chemicals, electrical current, and radiation. The severity of a burn depends on the:</p> <ul style="list-style-type: none"><li>Temperature of the burning agent</li><li>Period of time that the victim was exposed</li><li>Area of the body that was affected</li><li>Size of the area burned</li><li>Depth of the burn</li></ul>
<p>Display Slide 4-23</p>	<p>Tell the group to exercise extreme caution around victims who appear to have burns when there is no obvious cause for the burns. These burns may indicate chemical burns, which present a risk to the rescuer.</p>
 <p>Slide 4-24: Burn Classifications</p> <ul style="list-style-type: none"><li>Superficial: epidermis</li><li>Partial Thickness: dermis and epidermis</li><li>Full Thickness: subcutaneous layer and all layers above</li></ul> <p>Includes a diagram of skin layers.</p>	<p><b>Burn Classifications</b></p> <p>Explain that the skin has three layers:</p> <ul style="list-style-type: none"><li>The <u>epidermis</u>, or outer layer of skin, contains nerve endings and is penetrated by hairs.</li><li>The <u>dermis</u>, or middle layer of skin, contains blood vessels, oil glands, hair follicles, and sweat glands.</li><li>The <u>subcutaneous layer</u>, or innermost layer, contains blood vessels and overlies the muscles.</li></ul>
<p>Display Slide 4-24</p>	<p>Depending on the severity, burns may affect all three layers of skin.</p>
<p>PM, P. 4-21</p>	<p>Refer the participants to the chart titled <i>Burn Classification</i>, in the Participant Manual. Tell the group that burns are classified as superficial, partial thickness, and full thickness depending on their severity.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<b>PM, P. 4-22</b>	Refer the group to the <i>List of Guidelines for Treating Burns</i> in the Participant Manual. Review the guidelines with the group.

<b>PM, P. 4-21</b>	<b>Burn Classification</b>
--------------------	----------------------------

Classification	Skin Layers Affected	Signs
Superficial	<ul style="list-style-type: none"> <li>▪ Epidermis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reddened, dry skin</li> <li>▪ Pain</li> <li>▪ Swelling (possible)</li> </ul>
Partial Thickness	<ul style="list-style-type: none"> <li>▪ Epidermis</li> <li>▪ Partial destruction of dermis</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reddened, blistered skin</li> <li>▪ Wet appearance</li> <li>▪ Pain</li> <li>▪ Swelling (possible)</li> </ul>
Full Thickness	<ul style="list-style-type: none"> <li>▪ Complete destruction of epidermis and dermis</li> <li>▪ Possible subcutaneous damage (destroys all layers of skin and some or all underlying structures)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Whitened, leathery, or charred (brown or black)</li> <li>▪ Painful or relatively painless</li> </ul>

**COMMUNITY EMERGENCY RESPONSE TEAM**  
**UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

**PM, P. 22**

**List of Guidelines for Treating Burns**

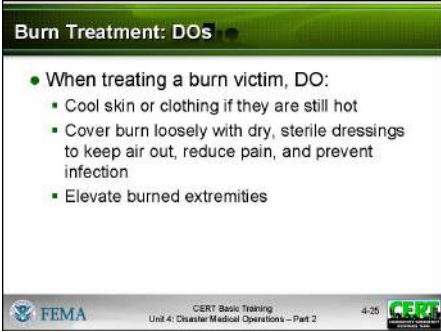
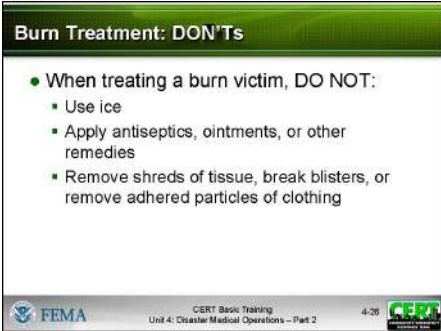
- Remove the victim from the burning source. Put out any flames and remove smoldering clothing unless it is stuck to the skin.
- Cool skin or clothing, if they are still hot, by immersing them in cool water for not more than 1 minute or covering with clean compresses that have been soaked in cool water and wrung out. Cooling sources include water from the bathroom or kitchen; garden hose; and soaked towels, sheets, or other cloths. Treat all victims of full thickness burns for shock.

Infants, young children, and older persons, and persons with severe burns, are more susceptible to hypothermia. Therefore, rescuers should use caution when applying cool dressings on such persons. A rule of thumb is do not cool more than 15% of the body surface area (the size of one arm) at once, to reduce the chances of hypothermia.

- Cover loosely with dry, sterile dressings to keep air out, reduce pain, and prevent infection.
- Wrap fingers and toes loosely and individually when treating severe burns to the hands and feet.
- Loosen clothing near the affected area. Remove jewelry if necessary, taking care to document what was removed, when, and to whom it was given.
- Elevate burned extremities higher than the heart.
- Do not use ice. Ice causes vessel constriction.
- Do not apply antiseptics, ointments, or other remedies.
- Do not remove shreds of tissue, break blisters, or remove adhered particles of clothing. (Cut burned-in clothing around the burn.)

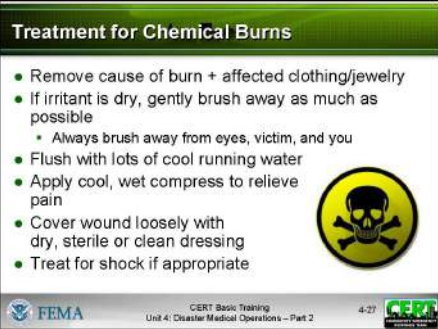
**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 464 626 793"></div> <p data-bbox="188 810 461 846"><b>Display Slide 4-25</b></p> <div data-bbox="188 905 626 1234"></div> <p data-bbox="188 1251 461 1287"><b>Display Slide 4-26</b></p> <p data-bbox="188 1335 626 1514">Debunk the myth about using any ointment or salve on a burn. Salve will hold heat in the burn area and later have to be scrubbed off.</p>	<p data-bbox="659 363 1203 396"><b>DOs and DON'Ts of Burn Treatment</b></p> <p data-bbox="659 459 1122 493">When treating a burn victim, <b>DO</b>:</p> <ul data-bbox="659 510 1425 678" style="list-style-type: none"><li>▪ Cool skin or clothing if they are still hot.</li><li>▪ Cover loosely with dry, sterile dressings to keep air out, reduce pain, and prevent infection.</li><li>▪ Elevate burned extremities higher than the heart.</li></ul> <p data-bbox="659 900 1053 934">When treating a burn victim:</p> <ul data-bbox="659 951 1425 1192" style="list-style-type: none"><li>▪ <b>Do NOT</b> use ice. Ice causes vessel constriction.</li><li>▪ <b>Do NOT</b> apply antiseptics, ointments, or other remedies.</li><li>▪ <b>Do NOT</b> remove shreds of tissue, break blisters, or remove adhered particles of clothing. (Cut burned-in clothing around the burn.)</li></ul> <p data-bbox="659 1575 1442 1822">Caution the group that infants, young children, and older persons, and persons with severe burns, are more susceptible to hypothermia. Therefore, rescuers should use caution when applying cool dressings on such persons. A rule of thumb is do not cool more than 15% of the body surface area (the size of one arm) at once, to prevent hypothermia.</p>



**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 724 626 1050"></p> <p data-bbox="191 1066 461 1102"><b>Display Slide 4-27</b></p>	<p data-bbox="657 361 1382 428"><b>Guidelines for Treating Chemical and Inhalation Burns</b></p> <p data-bbox="657 470 1365 638">State that chemical and inhalation burns vary from traditional heat-related burns in their origin and treatment. Keep in mind that suspicion of either chemical or inhalation burns elevates the victim's status to "I."</p> <p data-bbox="657 714 883 747"><i>Chemical Burns</i></p> <p data-bbox="657 785 1398 886">Explain that unlike more traditional burns, chemical burns do not result from extreme heat, and therefore treatment differs greatly.</p> <p data-bbox="657 924 1422 1062">Tell the participants that such burns are not always obvious. They should consider chemical burns as a possibility if the victim's skin is burning and there is no sign of a fire. If chemical burns are suspected:</p> <ol data-bbox="657 1079 1442 1764" style="list-style-type: none"><li>1. Protect yourself from contact with the substance. Use your protective gear — especially goggles, mask, and gloves.</li><li>2. Ensure that any affected clothing or jewelry is removed.</li><li>3. If the irritant is dry, gently brush away as much as possible. Always brush away from the eyes and away from the victim and you.</li><li>4. Use lots of cool running water to flush the chemical from the skin for 15 minutes until emergency help arrives. The running water will dilute the chemical fast enough to prevent the injury from getting worse.</li><li>5. Apply cool, wet compress to relieve pain.</li><li>6. Cover the wound very loosely with a dry, sterile or clean cloth so that the cloth will not stick to the wound.</li><li>7. Treat for shock if appropriate.</li></ol>



**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="196 386 626 415"><b>Inhalation Burns Signs and Symptoms</b></p> <ul data-bbox="212 436 391 625" style="list-style-type: none"><li>• Sudden loss of consciousness</li><li>• Evidence of respiratory distress or upper airway obstruction</li><li>• Soot around mouth or nose</li><li>• Singed facial hair</li><li>• Burns around face or neck</li></ul>  <p data-bbox="418 604 610 632"><small>Figure 27-26 A singed mustache and soot to the tip of the tongue signal danger of smoke burns all back to the eyes.</small></p> <p data-bbox="196 667 626 695">FEMA CERT Basic Training Unit 4: Disaster Medical Operations – Part 2 4-28</p> <p data-bbox="188 716 461 747"><b>Display Slide 4-28</b></p> 	<p data-bbox="659 365 889 396"><i>Inhalation Burns</i></p> <p data-bbox="659 432 1430 604">Remind the group that 60 to 80% of fire fatalities are the result of smoke inhalation. Whenever fire and/or smoke is present, CERT members should assess victims for signs and symptoms of smoke inhalation. These are indicators that an inhalation burn is present:</p> <ul data-bbox="659 625 1382 894" style="list-style-type: none"><li>▪ Sudden loss of consciousness</li><li>▪ Evidence of respiratory distress or upper airway obstruction</li><li>▪ Soot around the mouth or nose</li><li>▪ Singed facial hair</li><li>▪ Burns around the face or neck</li></ul> <p data-bbox="659 947 1438 1119">Emphasize that the patient may not present these signs and symptoms until hours (sometimes up to a full 24 hours) after the injury occurred, and such symptoms may be overlooked when treating more obvious signs of trauma.</p> <p data-bbox="659 1157 1438 1329">Reiterate that smoke inhalation is the number one fire-related cause of death. If CERT members have reason to suspect smoke inhalation, be sure the airway is maintained, and alert a medical professional as soon as possible.</p> <p data-bbox="659 1367 1414 1440"><b>Does anyone have a question about the treatment for burns?</b></p>


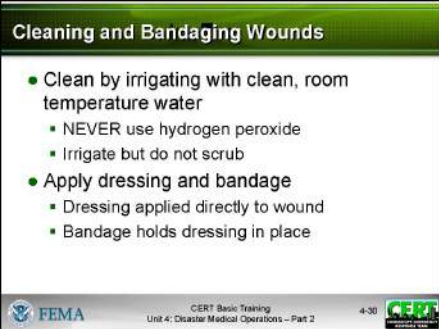
**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---



INSTRUCTOR GUIDANCE	CONTENT
	<p>Explain that in the next section, the participants will learn to treat other injuries that are common after disasters:</p> <ul style="list-style-type: none"><li>▪ Lacerations</li><li>▪ Amputations and impaled objects</li><li>▪ Fractures, dislocations, sprains, and strains</li><li>▪ Nasal injuries</li><li>▪ Cold-related injuries</li><li>▪ Heat-related injuries</li><li>▪ Insect bites/stings</li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---


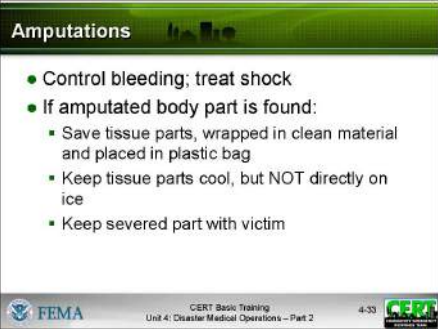
INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Wound Care</b></p> <ul style="list-style-type: none"><li>• Control bleeding</li><li>• Clean wound</li><li>• Apply dressing and bandage</li></ul> <p><small>FEMA CERT Basic Training Unit 4: Disaster Medical Operations – Part 2 4-29</small></p> <p><b>Display Slide 4-29</b></p>	<p><b>Wound Care</b></p> <p>This section will focus on cleaning and bandaging to control infection.</p> <p>Tell the group that the main treatment for wounds includes:</p> <ul style="list-style-type: none"><li>▪ Control bleeding</li><li>▪ Clean the wound</li><li>▪ Apply dressing and bandage</li></ul> <p>Add the reminder that treatment for controlling bleeding was covered during the last session. Explain that the focus of this section is on cleaning and bandaging, which will help to prevent secondary infection.</p>
 <p><b>Cleaning and Bandaging Wounds</b></p> <ul style="list-style-type: none"><li>• Clean by irrigating with clean, room temperature water<ul style="list-style-type: none"><li>▪ NEVER use hydrogen peroxide</li><li>▪ Irrigate but do not scrub</li></ul></li><li>• Apply dressing and bandage<ul style="list-style-type: none"><li>▪ Dressing applied directly to wound</li><li>▪ Bandage holds dressing in place</li></ul></li></ul> <p><small>FEMA CERT Basic Training Unit 4: Disaster Medical Operations – Part 2 4-30</small></p> <p><b>Display Slide 4-30</b></p> <p>Remind the participants that to sterilize water using non-perfumed bleach, they should use the following ratios:</p> <ul style="list-style-type: none"><li>• 8 drops of bleach per gallon of water</li><li>• 16 drops if the water is cloudy</li></ul> <p>Allow the mixture to sit for 30 minutes before use.</p>	<p><b>Cleaning and Bandaging Wounds</b></p> <p>Explain that wounds should be cleaned by irrigating with clean, room temperature water.</p> <p>NEVER use hydrogen peroxide to irrigate the wound.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

INSTRUCTOR GUIDANCE	CONTENT
<p>Demonstrate the procedure for cleaning wounds using the mannequin or another instructor.</p> <p>Demonstrate the correct procedure for dressing and bandaging a wound.</p> <p>Demonstrate some techniques for tying a bandage if no tape is available.</p> <div data-bbox="188 1335 626 1663" style="border: 1px solid black; padding: 5px; margin-top: 20px;"> <p><b>Rules of Dressing</b></p> <ul style="list-style-type: none"> <li>● If active bleeding: <ul style="list-style-type: none"> <li>▪ Redress <b>OVER</b> existing dressing</li> </ul> </li> <li>● If no active bleeding: <ul style="list-style-type: none"> <li>▪ Remove bandage and dressing to flush wound</li> <li>▪ Check for infection every 4-6 hours</li> </ul> </li> </ul> <p style="font-size: small; margin-top: 5px;">  <span style="margin-left: 100px;">CERT Basic Training</span> <span style="float: right;">4-31</span>  <span style="margin-left: 100px;">Unit 4: Disaster Medical Operations – Part 2</span>  </p> </div> <p><b>Display Slide 4-31</b></p>	<p>Emphasize that the participants should <u>not</u> scrub the wound. Mention that a bulb syringe is useful for irrigating wounds. In a disaster, a turkey baster may also be useful.</p> <p>Tell the group that, when the wound is thoroughly cleaned, they will need to apply a dressing and bandage to help keep it clean and control bleeding.</p> <p>Explain the difference between a dressing and a bandage:</p> <ul style="list-style-type: none"> <li>▪ A dressing is applied directly to the wound. Whenever possible, a dressing should be sterile.</li> <li>▪ A bandage holds the dressing in place.</li> </ul> <p>Point out that, if a wound is still bleeding, the bandage should place enough pressure on the wound to help control bleeding without interfering with circulation.</p> <p><b>Rules of Dressing</b></p> <p>Explain that the participants should follow these rules:</p> <ol style="list-style-type: none"> <li>1. If there is active bleeding (i.e., if the dressing is soaked with blood), redress <u>over</u> the existing dressing and maintain pressure and elevation to control bleeding.</li> <li>2. In the absence of active bleeding, remove the dressings, flush the wound, and then check for signs of infection at least every 4 to 6 hours.</li> </ol>

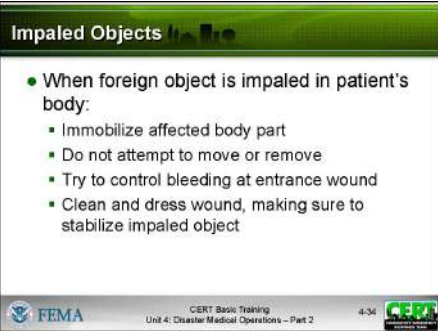

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

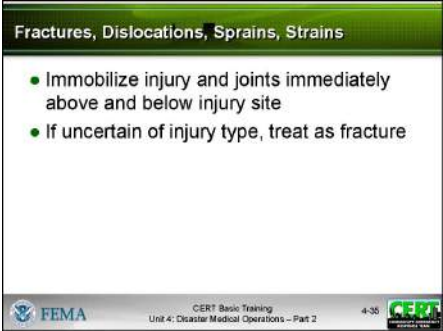
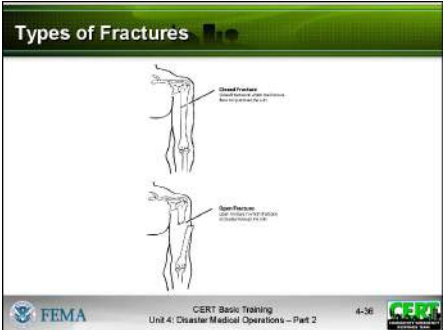
INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 373 626 695"></p> <p data-bbox="191 716 461 747"><b>Display Slide 4-32</b></p> <p data-bbox="191 1167 626 1493"></p> <p data-bbox="191 1514 461 1545"><b>Display Slide 4-33</b></p>	<p data-bbox="659 363 1146 394">Signs of possible infection include:</p> <ul data-bbox="659 415 1187 594" style="list-style-type: none"><li>▪ Swelling around the wound site</li><li>▪ Discoloration</li><li>▪ Discharge from the wound</li><li>▪ Red striations from the wound site</li></ul> <p data-bbox="659 615 1422 709">If necessary and based on reassessment and signs of infection, change the treatment priority (e.g., from Delayed to Immediate).</p> <p data-bbox="659 804 854 835"><b>Amputations</b></p> <p data-bbox="659 905 1438 999">Emphasize that the main treatments for an amputation (the traumatic severing of a limb or other body part) are to:</p> <ul data-bbox="659 1020 935 1104" style="list-style-type: none"><li>▪ Control bleeding</li><li>▪ Treat shock</li></ul> <p data-bbox="659 1161 1438 1224">Stress that when the severed body part can be located, CERT members should:</p> <ul data-bbox="659 1245 1438 1486" style="list-style-type: none"><li>▪ Save tissue parts, wrapped in clean material and placed in a plastic bag, if available. Label them with the date, time, and victim's name.</li><li>▪ Keep the tissue parts cool, but NOT in direct contact with ice</li><li>▪ Keep the severed part with the victim</li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 640 626 968"></p> <p data-bbox="191 982 461 1020"><b>Display Slide 4-34</b></p> <p data-bbox="191 1150 266 1222"></p>	<p data-bbox="657 361 906 396"><b>Impaled Objects</b></p> <p data-bbox="657 457 1430 592">Tell the group that they may also encounter some victims who have foreign objects lodged in their bodies — usually as the result of flying debris during the disaster.</p> <p data-bbox="657 634 1357 703">Explain that, when a foreign object is impaled in a patient's body, the participants should:</p> <ul data-bbox="657 720 1437 1083" style="list-style-type: none"><li>▪ Immobilize the affected body part</li><li>▪ <u>Not</u> attempt to move or remove the object, unless it is obstructing the airway</li><li>▪ Try to control bleeding at the entrance wound without placing undue pressure on the foreign object</li><li>▪ Clean and dress the wound making sure to stabilize the impaled object. Wrap bulky dressings around the object to keep it from moving.</li></ul> <p data-bbox="657 1138 1398 1173"><b>Does anyone have questions about wound care?</b></p> <p data-bbox="657 1276 1370 1381">Tell the participants that the next topic will address treatment for fractures, dislocations, sprains, and strains.</p>

COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2

INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Display Slide 4-35</b></p> <p><b>PM, P. 4-28</b></p>  <p><b>Display Slide 4-36</b></p>	<p><b><i>Treating Fractures, Dislocations, Sprains, and Strains</i></b></p> <p>Tell the group that the objective when treating a suspected fracture, sprain, or strain is to immobilize the injury and the joints immediately above and below the injury site.</p> <p>Point out that because it is difficult to distinguish among fractures, sprains, or strains, if uncertain of the type of injury, CERT members should treat the injury as a fracture.</p> <p><b>Fractures</b></p> <p>Introduce this section by explaining that a fracture is a complete break, a chip, or a crack in a bone. There are several types of fractures (refer the participants to the illustrations titled <i>Closed and Open Fractures</i> in the Participant Manual):</p> <ul style="list-style-type: none"><li>▪ A <u>closed fracture</u> is a broken bone with no associated wound. First aid treatment for closed fractures may require only splinting.</li><li>▪ An <u>open fracture</u> is a broken bone with some kind of wound that allows contaminants to enter into or around the fracture site.</li></ul>

PM, P. 4-28

Closed and Open Fractures



**Closed Fracture**

Closed Fracture in which the fracture does not puncture the skin.

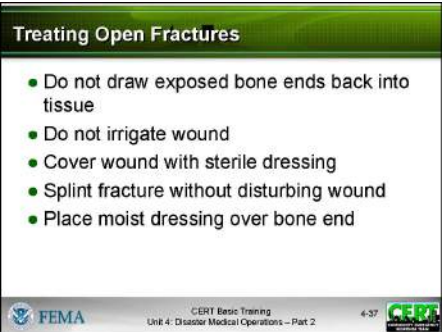
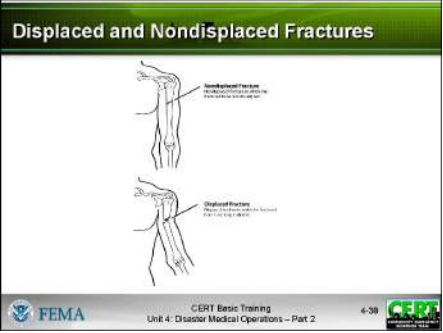


**Open Fracture**

Open Fracture in which the bone protrudes through the skin.



COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2

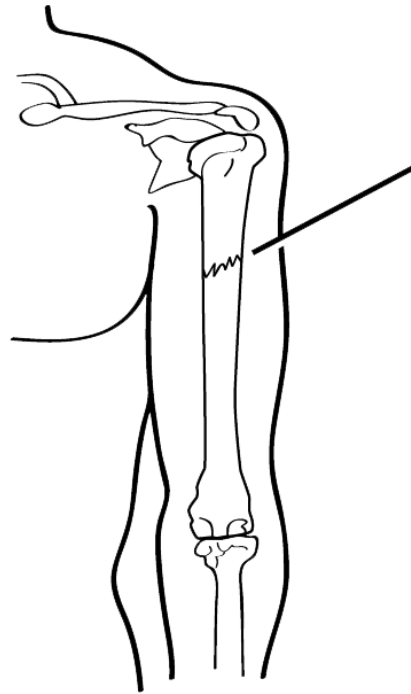
INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="196 632 630 961"><p>Treating Open Fractures</p><ul style="list-style-type: none"><li>Do not draw exposed bone ends back into tissue</li><li>Do not irrigate wound</li><li>Cover wound with sterile dressing</li><li>Splint fracture without disturbing wound</li><li>Place moist dressing over bone end</li></ul><p>FEMA CERT Basic Training Unit 4: Disaster Medical Operations – Part 2 4-37</p></p>	<p data-bbox="659 363 1057 394"><b>Treating an Open Fracture</b></p> <p data-bbox="659 432 1438 573">Explain that open fractures are more dangerous than closed fractures because they pose a significant risk of severe bleeding and infection. Therefore, they are a higher priority and need to be checked more frequently.</p> <p data-bbox="659 646 1260 678">Stress that when treating an open fracture:</p> <ul data-bbox="659 699 1409 821" style="list-style-type: none"><li>Do <u>not</u> draw the exposed bone ends back into the tissue.</li><li>Do <u>not</u> irrigate the wound.</li></ul> <p data-bbox="659 1052 1308 1083">Continue by telling the group that they <u>should</u>:</p> <ul data-bbox="659 1104 1398 1276" style="list-style-type: none"><li>Cover the wound with a sterile dressing</li><li>Splint the fracture without disturbing the wound</li><li>Place a moist 4 by 4-inch dressing over the bone end to keep it from drying out</li></ul> <p data-bbox="659 1297 1430 1367">Tell the group that splinting procedures will be covered later in this unit.</p> <p data-bbox="659 1388 1292 1493">Refer the participants to the illustrations titled <i>Displaced and Nondisplaced Fractures</i> in the Participant Manual.</p> <p data-bbox="659 1524 1438 1671">Explain that if the limb is angled, then there is a <u>displaced fracture</u>. Explain that displaced fractures may be described by the degree of displacement of the bone fragments.</p> <p data-bbox="659 1692 1398 1871">Explain that <u>nondisplaced fractures</u> are difficult to identify, with the main signs being pain and swelling. Stress that the participants should treat a suspected fracture as a fracture until professional treatment is available.</p>
<p data-bbox="190 982 464 1014"><b>Display Slide 4-37</b></p> <p data-bbox="190 1392 354 1423"><b>PM, P. 4-30</b></p> <p data-bbox="190 1518 630 1848"><p>Displaced and Nondisplaced Fractures</p><p>The slide contains two anatomical diagrams of a forearm. The top diagram shows a displaced fracture where the bone is broken and the ends are out of alignment. The bottom diagram shows a nondisplaced fracture where the bone is broken but the ends remain in their normal anatomical position.</p><p>FEMA CERT Basic Training Unit 4: Disaster Medical Operations – Part 2 4-38</p></p>	

COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2

---

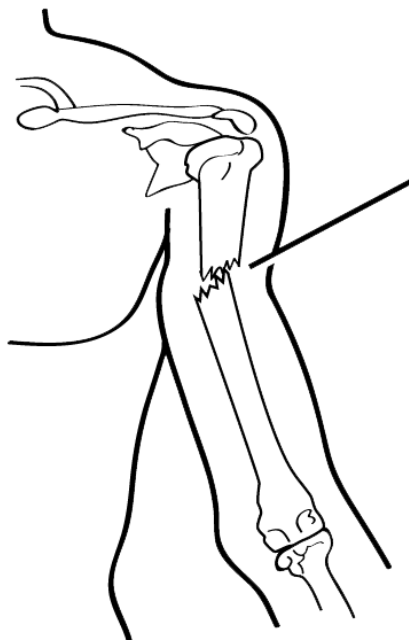
PM, P. 4-30

Displaced and Nondisplaced Fractures



**Nondisplaced Fracture**

Nondisplaced Fracture in which the fractured bone remains aligned.

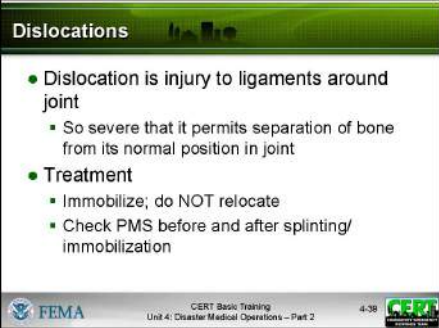


**Displaced Fracture**



Displaced Fracture in which the fractured bone is no longer aligned.

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Display Slide 4-39</b></p>	<h3>Dislocations</h3> <p>Introduce this section by telling the group that dislocations are another common injury in emergencies.</p> <p>Explain that a dislocation is an injury to the ligaments around a joint that is so severe that it permits a separation of the bone from its normal position in a joint.</p> <p>Tell the participants that the signs of a dislocation are similar to those of a fracture and that a suspected dislocation should be treated like a fracture.</p> <p>Emphasize that, if dislocation is suspected, be sure to assess PMS (Pulse, Movement, Sensation) in the affected limb before and after splinting/immobilization. If PMS is compromised, the patient's treatment priority is elevated to "I."</p> <p>Stress that the participants should <u>not</u> try to relocate a suspected dislocation. They should immobilize the joint until professional medical help is available.</p> <h3>Sprains and Strains</h3> <p>Introduce this section by explaining that a sprain involves a stretching or tearing of ligaments at a joint and is usually caused by stretching or extending the joint beyond its normal limits.</p> <p>Point out that a <u>sprain</u> is considered a partial dislocation, although the bone either remains in place or is able to fall back into place after the injury.</p>

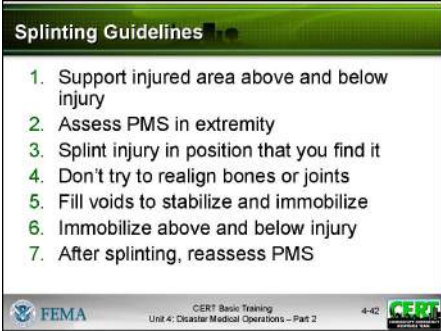
COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 367 626 695"></p> <p data-bbox="191 716 461 747"><b>Display Slide 4-40</b></p> 	<p data-bbox="659 367 1419 428">Tell the group that the most common signs of a sprain are:</p> <ul data-bbox="659 449 1195 583" style="list-style-type: none"><li>▪ Tenderness at the site of the injury</li><li>▪ Swelling and/or bruising</li><li>▪ Restricted use or loss of use</li></ul> <p data-bbox="659 806 1419 940">Remind the group that the signs of a sprain are similar to those of a nondisplaced fracture. Therefore, they should <u>not</u> try to treat the injury other than by immobilization and elevation.</p> <p data-bbox="659 978 1419 1081">Tell the group that a <u>strain</u> involves a stretching and/or tearing of muscles or tendons. Strains most often involve the muscles in the neck, back, thigh, or calf.</p> <p data-bbox="659 1119 1419 1253">Point out that in some cases, strains may be difficult to distinguish from sprains or fractures. Whether an injury is a strain, sprain, or fracture, treat the injury as if it is a fracture.</p> <p data-bbox="659 1291 1419 1362"><b>Does anyone have any questions about fractures, dislocations, sprains, or strains?</b></p>

COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2

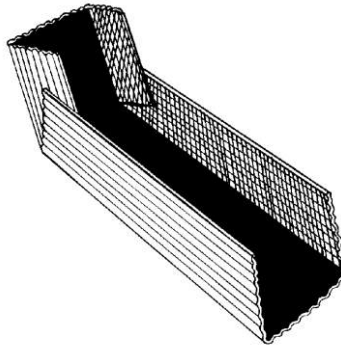
INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Display Slide 4-41</b></p> <p>Remind the participants to be creative when looking for splinting materials. For example, consider using the victim's t-shirt as a makeshift sling. Remove the shirt and cut the lower portion of the shirt from armpit to armpit. Use the remaining band of fabric as a sling by placing one end under the injured arm and the other end over the victim's head.</p>	<p><b>Splinting</b></p> <p>Introduce this topic by explaining that splinting is the most common procedure for immobilizing an injury.</p> <p>Point out that cardboard is the material typically used for makeshift splints but a variety of materials can be used, including:</p> <ul style="list-style-type: none"><li>▪ <u>Soft materials</u>. Towels, blankets, or pillows, tied with bandaging materials or soft cloths</li><li>▪ <u>Rigid materials</u>. A board, metal strip, folded magazine or newspaper, or other rigid item</li></ul> <p>Add that <u>anatomical splints</u> may also be created by securing a fractured bone to an adjacent unfractured bone. Anatomical splints are usually reserved for fingers and toes, but, in an emergency, legs may also be splinted together.</p> <p>Soft materials should be used to fill the gap between the splinting material and the body part.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

INSTRUCTOR GUIDANCE	CONTENT
<p>Demonstrate the correct procedures for splinting the upper and lower leg.</p>  <p><b>Display Slide 4-42</b></p> <p><b>PM, PP. 4-33 AND 4-34</b></p>	<p>During the demonstration, be sure to point out the guidelines for splinting:</p> <ol style="list-style-type: none"><li>1. Support the injured area above and below the site of the injury, including the joints.</li><li>2. Assess PMS in the extremity before initiating the splint.</li><li>3. If possible, splint the injury in the position that you find it.</li><li>4. Don't try to realign bones or joints.</li><li>5. Fill the voids to further stabilize and immobilize the injury.</li><li>6. Immobilize above and below the injury.</li><li>7. After splinting, reassess PMS and evaluate against initial PMS assessment.</li></ol> <p>Tell the participants that, with this type of injury, there will be swelling. They should remove restrictive clothing, shoes, and jewelry when necessary to prevent these items from acting as unintended tourniquets.</p> <p>Refer the participants to the pages titled <i>Splint Illustrations</i> in the Participant Manual.</p>

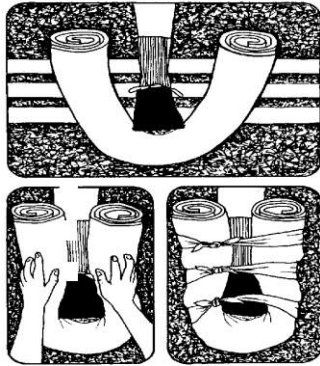
PM, PP. 4-33 and 4-34

Splint Illustrations



**Cardboard Splint**

Cardboard Splint in which the edges of the cardboard are turned up to form a “mold” in which the injured limb can rest.



**Splinting Using a Towel**

Splinting using a towel, in which the towel is rolled up and wrapped around the limb, then tied in place.

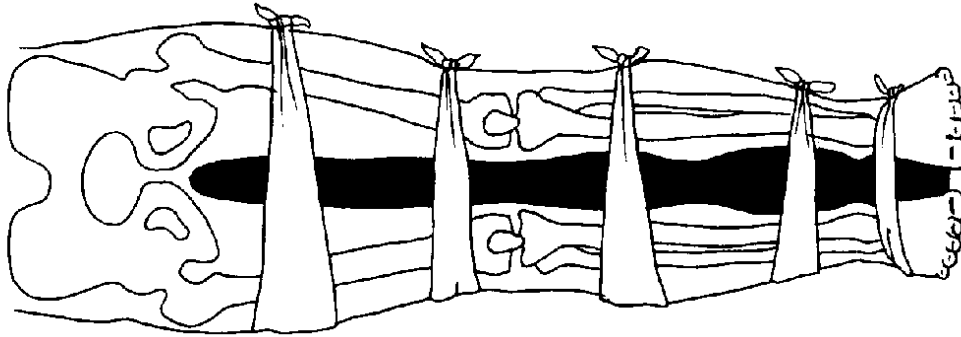


**Pillow splint**

Pillow splint, in which the pillow is wrapped around the limb and tied.

PM, PP. 4-33 and 4-34

**Splint Illustrations**




**Anatomical Splint**

**Anatomical splint in which the injured leg is tied at intervals to the non-injured leg, using a blanket as padding between the legs.**



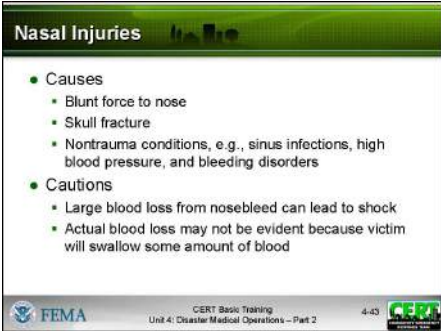
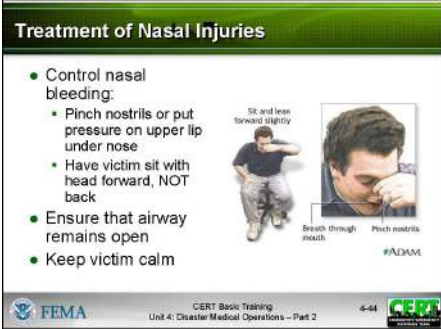
**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---


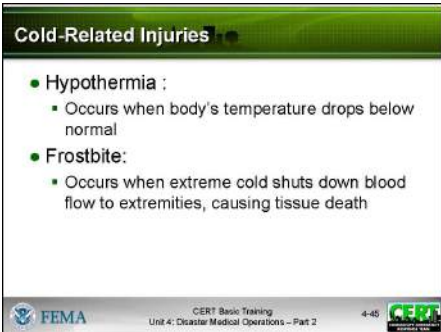
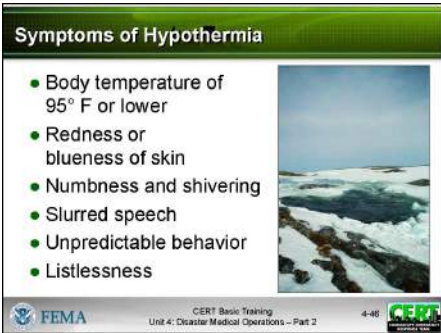
INSTRUCTOR GUIDANCE	CONTENT
<p>Observe each group and correct improper technique. Be sure to check for bandages that are too tight or too loose.</p> 	<p><b>Exercise: Splinting</b></p> <p><b>Purpose:</b> This exercise allows the participants to practice on each other the procedures for splinting. Use cardboard, duct tape, other splinting material, and gauze.</p> <p><b>Instructions:</b> Follow the steps below to facilitate this exercise:</p> <ol style="list-style-type: none"> <li>1. Assign the group to work in pairs. Ask the participants to switch partners from the previous exercise.</li> <li>2. Ask one person to be the victim and one person to be the rescuer.</li> <li>3. Ask the victims to lie on the floor on their backs or sit in a chair.</li> <li>4. Ask the rescuer to apply a splint on the victim's upper arm using the procedure demonstrated earlier. Then, ask the rescuers to apply a splint to the victim's lower leg.</li> <li>5. After the rescuer has made several observed attempts at splinting, ask the victim and the rescuer to change roles.</li> <li>6. Allow each new rescuer at least one observed attempt to apply the splint.</li> <li>7. 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 the problems in emergency situations.</li> </ol> <p><b>Does anyone have any questions about correct procedures for splinting?</b></p> <p>Tell the group that the next section will address treatment for nasal injuries.</p>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

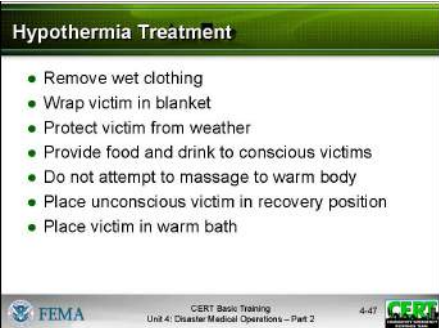
INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 472 626 800"></div> <p data-bbox="188 821 461 852"><b>Display Slide 4-43</b></p> <p data-bbox="188 1234 623 1297">Demonstrate the correct procedures on the mannequin.</p> <div data-bbox="188 1455 626 1782"></div> <p data-bbox="188 1799 461 1831"><b>Display Slide 4-44</b></p>	<h3 data-bbox="659 373 902 405"><i>Nasal Injuries</i></h3> <p data-bbox="659 468 1430 531">Introduce this section by telling the group that bleeding from the nose can have several causes.</p> <p data-bbox="659 573 1425 604">Explain that bleeding from the nose can be caused by:</p> <ul data-bbox="659 625 1341 825" style="list-style-type: none"><li>▪ Blunt force to the nose</li><li>▪ Skull fracture</li><li>▪ Nontrauma-related conditions such as sinus infections, high blood pressure, and bleeding disorders</li></ul> <p data-bbox="659 894 984 926">Caution the group that:</p> <ul data-bbox="659 947 1409 1094" style="list-style-type: none"><li>▪ A large blood loss from a nosebleed can lead to shock</li><li>▪ Actual blood loss may not be evident because the victim will swallow some amount of blood</li></ul> <p data-bbox="659 1115 1409 1178">Point out that those who have swallowed large amounts of blood may become nauseated and vomit.</p> <p data-bbox="659 1224 1312 1287">Demonstrate the methods for controlling nasal bleeding:</p> <ul data-bbox="659 1308 1398 1392" style="list-style-type: none"><li>▪ Pinch the nostrils together</li><li>▪ Put pressure on the upper lip just under the nose</li></ul> <p data-bbox="659 1451 1430 1514">Tell the participants that, while treating for nosebleeds, they should:</p> <ul data-bbox="659 1535 1430 1766" style="list-style-type: none"><li>▪ Have the victim sit with the head slightly forward so that blood trickling down the throat will not be breathed into the lungs. Do not put the head back.</li><li>▪ Ensure that the victim's airway remains open</li><li>▪ Keep the victim quiet. Anxiety will increase blood flow.</li></ul>

COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 373 267 445"></p> <div data-bbox="188 743 626 1073"><p><b>Cold-Related Injuries</b></p><ul style="list-style-type: none"><li>● Hypothermia :<ul style="list-style-type: none"><li>▪ Occurs when body's temperature drops below normal</li></ul></li><li>● Frostbite:<ul style="list-style-type: none"><li>▪ Occurs when extreme cold shuts down blood flow to extremities, causing tissue death</li></ul></li></ul></div> <p data-bbox="188 1073 461 1108"><b>Display Slide 4-45</b></p> <div data-bbox="188 1398 626 1728"><p><b>Symptoms of Hypothermia</b></p><ul style="list-style-type: none"><li>● Body temperature of 95° F or lower</li><li>● Redness or blueness of skin</li><li>● Numbness and shivering</li><li>● Slurred speech</li><li>● Unpredictable behavior</li><li>● Listlessness</li></ul></div> <p data-bbox="188 1728 461 1764"><b>Display Slide 4-46</b></p>	<p data-bbox="657 361 1417 432"><b>Does anyone have any questions about any of the injuries covered to this point in the unit?</b></p> <p data-bbox="657 499 1325 571">Tell the group that the next section will address treatment for cold-related injuries.</p> <p data-bbox="657 651 1188 693"><b><i>Treating Cold-Related Injuries</i></b></p> <p data-bbox="657 747 1360 814">Introduce this topic by explaining that cold-related injuries include:</p> <ul data-bbox="657 835 1430 1020" style="list-style-type: none"><li>▪ <u>Hypothermia</u>, which is a condition that occurs when the body's temperature drops below normal</li><li>▪ <u>Frostbite</u>, which occurs when extreme cold shuts down blood flow to extremities, causing tissue death</li></ul> <p data-bbox="657 1150 854 1184"><b>Hypothermia</b></p> <p data-bbox="657 1226 1378 1360">Tell the group that hypothermia may be caused by exposure to cold air or water or by inadequate food combined with inadequate clothing and/or heat, especially in older people.</p> <p data-bbox="657 1402 1349 1470">Point out that the primary signs and symptoms of hypothermia are:</p> <ul data-bbox="657 1491 1341 1625" style="list-style-type: none"><li>▪ A body temperature of 95° F (37° C) or lower</li><li>▪ Redness or blueness of the skin</li><li>▪ Numbness accompanied by shivering</li></ul>


**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

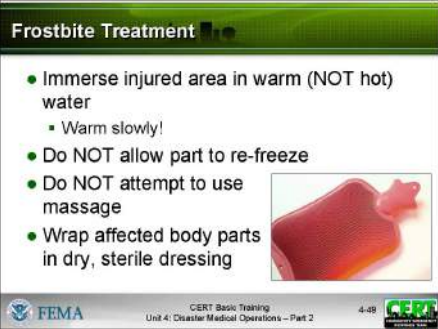

INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Hypothermia Treatment</b></p> <ul style="list-style-type: none"><li>• Remove wet clothing</li><li>• Wrap victim in blanket</li><li>• Protect victim from weather</li><li>• Provide food and drink to conscious victims</li><li>• Do not attempt to massage to warm body</li><li>• Place unconscious victim in recovery position</li><li>• Place victim in warm bath</li></ul> <p>FEMA CERT Basic Training Unit 4: Disaster Medical Operations — Part 2 4-47</p> <p><b>Display Slide 4-47</b></p>	<p>Add that, in later stages, hypothermia will be accompanied by:</p> <ul style="list-style-type: none"><li>▪ Slurred speech</li><li>▪ Unpredictable behavior</li><li>▪ Listlessness</li></ul> <p>Explain that because hypothermia can set in within only a few minutes, participants should treat victims who have been rescued from cold air or water environments.</p> <ul style="list-style-type: none"><li>▪ Remove wet clothing.</li><li>▪ Wrap the victim in a blanket or sleeping bag and cover the head and neck.</li><li>▪ Protect the victim against the weather.</li><li>▪ Provide warm, sweet drinks and food to conscious victims. <u>Do not offer alcohol.</u></li><li>▪ Do not attempt to use massage to warm affected body parts.</li><li>▪ Place an unconscious victim in the recovery position:<ol style="list-style-type: none"><li>1. Place the victim's arm that is nearest to you at a right angle against the ground, with the palm facing up.</li><li>2. Move the victim's other arm across his or her chest and neck, with the back of the victim's hand resting against his or her cheek.</li><li>3. Grab a hold of the knee furthest from you and pull it up until the knee is bent and the foot is flat on the floor.</li><li>4. Pull the knee toward you and over the victim's body while holding the victim's hand in place against his or her cheek.</li><li>5. Position the victim's leg at a right angle against the floor so that the victim is lying on his or her side.</li></ol></li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

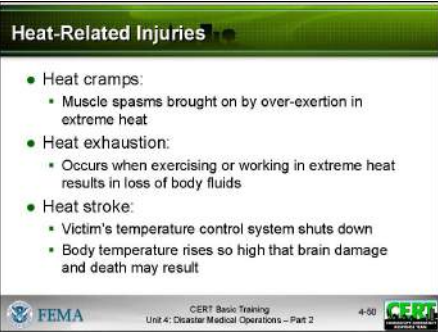

---

INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Display Slide 4-48</b></p>	<ul style="list-style-type: none"><li>▪ If the victim is conscious, place him or her in a warm bath.</li></ul> <p>Tell the participants not to allow the victim to walk around even when he or she appears to be fully recovered. If the victim must be moved outdoors, they should cover the victim's head and face.</p> <p><b>Frostbite</b></p> <p>Explain to the group that a person's blood vessels constrict in cold weather in an effort to preserve body heat. In extreme cold, the body will further constrict blood vessels in the extremities in an effort to shunt blood toward the core organs (heart, lungs, intestines, etc.). The combination of inadequate circulation and extreme temperatures will cause tissue in these extremities to freeze, and, in some cases, tissue death will result. Frostbite is most common in the hands, nose, ears, and feet.</p> <p>Tell the participants that there are several key signs and symptoms of frostbite:</p> <ul style="list-style-type: none"><li>▪ Skin discoloration (red, white, purple, black)</li><li>▪ Burning or tingling sensation, at times not localized to the injury site</li><li>▪ Partial or complete numbness</li></ul>

COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2

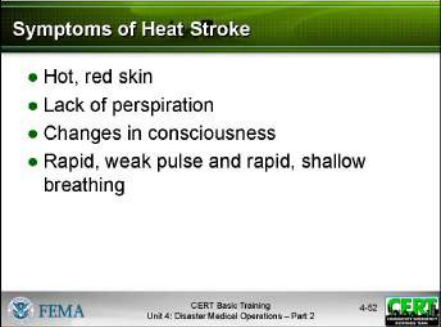
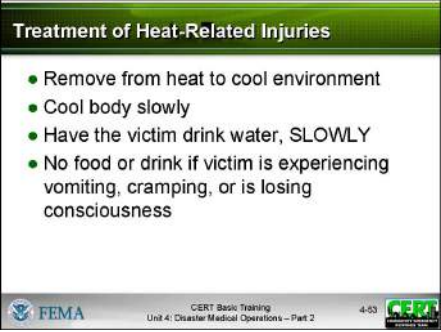

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 361 626 688">A slide titled "Frostbite Treatment" with a green header. It lists three main bullet points: "Immerse injured area in warm (NOT hot) water" (with a sub-bullet "Warm slowly!"), "Do NOT allow part to re-freeze", and "Do NOT attempt to use massage". A fourth bullet point says "Wrap affected body parts in dry, sterile dressing". There is a small image of a red, swollen, frostbitten hand. The slide footer includes FEMA, CERT Basic Training, Unit 4: Disaster Medical Operations - Part 2, and slide number 4-49.</p> <p data-bbox="191 726 461 760"><b>Display Slide 4-49</b></p> <p data-bbox="191 991 266 1062">A black square icon with a white question mark and a white arrow pointing downwards.</p>	<p data-bbox="659 361 1422 499">Explain to the participants that a patient suffering from frostbite must be warmed slowly! Thawing the frozen extremity too rapidly can cause chilled blood to flow to the heart, shocking and potentially stopping it.</p> <ul data-bbox="659 516 1422 760" style="list-style-type: none"><li>▪ Immerse injured area in warm (NOT hot) water, approximately 107.6° F.</li><li>▪ Do NOT allow the body part to re-freeze as this will exacerbate the injury.</li><li>▪ Do NOT attempt to use massage to warm affected body parts.</li></ul> <p data-bbox="659 777 1438 949">Tell the participants to wrap affected body parts in dry, sterile dressing. Again, it is vital this task be completed carefully. Frostbite results in the formation of ice crystals in the tissue; rubbing could potentially cause a great deal of damage!</p> <p data-bbox="659 987 1341 1054"><b>Does anyone have any questions about cold-related injuries?</b></p> <p data-bbox="659 1100 1390 1167">Explain that heat-related injuries will be discussed in the next section.</p>

COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="191 464 626 793">A slide titled "Heat-Related Injuries" with a green header. It lists three types of injuries: Heat cramps (muscle spasms from over-exertion), Heat exhaustion (occurs when exercising in extreme heat), and Heat stroke (victim's temperature control system shuts down). The slide includes FEMA and CERT logos and the text "CERT Basic Training Unit 4: Disaster Medical Operations - Part 2 4-50".</p> <p data-bbox="191 831 461 865"><b>Display Slide 4-50</b></p> <p data-bbox="191 1087 626 1417">A slide titled "Symptoms of Heat Exhaustion" with a green header. It lists symptoms: Cool, moist, pale or flushed skin; Heavy sweating; Headache; Nausea or vomiting; Dizziness; and Exhaustion. It includes a photo of a man with a red neckerchief. The slide includes FEMA and CERT logos and the text "CERT Basic Training Unit 4: Disaster Medical Operations - Part 2 4-51".</p> <p data-bbox="191 1434 461 1467"><b>Display Slide 4-51</b></p>	<p data-bbox="659 371 1187 411"><b><i>Treating Heat-Related Injuries</i></b></p> <p data-bbox="659 468 1365 569">Tell the participants that there are several types of heat-related injuries that they may encounter in a disaster scenario:</p> <ul data-bbox="659 590 1438 1035" style="list-style-type: none"><li>▪ <u>Heat cramps</u> are muscle spasms brought on by over-exertion in extreme heat.</li><li>▪ <u>Heat exhaustion</u> occurs when an individual exercises or works in extreme heat, resulting in loss of body fluids through heavy sweating. Blood flow to the skin increases, causing blood flow to decrease to the vital organs. This results in a mild form of shock.</li><li>▪ <u>Heat stroke</u> is life threatening. The victim's temperature control system shuts down, and body temperature can rise so high that brain damage and death may result.</li></ul> <p data-bbox="659 1087 907 1121"><b>Heat Exhaustion</b></p> <p data-bbox="659 1161 1435 1226">Explain to the group that the following are symptoms of heat exhaustion:</p> <ul data-bbox="659 1247 1167 1528" style="list-style-type: none"><li>▪ Cool, moist, pale, or flushed skin</li><li>▪ Heavy sweating</li><li>▪ Headache</li><li>▪ Nausea or vomiting</li><li>▪ Dizziness</li><li>▪ Exhaustion</li></ul> <p data-bbox="659 1549 1382 1650">A patient suffering heat exhaustion will have a near normal body temperature. If left untreated, heat exhaustion will develop into heat stroke.</p>




COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2

INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Symptoms of Heat Stroke</b></p> <ul style="list-style-type: none"><li>• Hot, red skin</li><li>• Lack of perspiration</li><li>• Changes in consciousness</li><li>• Rapid, weak pulse and rapid, shallow breathing</li></ul> <p>FEMA CERT Basic Training Unit 4: Disaster Medical Operations – Part 2 4-52</p>	<h3>Heat Stroke</h3> <p>Tell the participants that heat stroke is characterized by some or all of the following symptoms:</p> <ul style="list-style-type: none"><li>▪ Hot, red skin</li><li>▪ Lack of perspiration</li><li>▪ Changes in consciousness</li><li>▪ Rapid, weak pulse and rapid, shallow breathing</li></ul>
<p><b>Display Slide 4-52</b></p>	<p>In a heat stroke victim, body temperature can be very high — as high as 105° F. If an individual suffering from heat stroke is not treated, death can result!</p>
 <p><b>Treatment of Heat-Related Injuries</b></p> <ul style="list-style-type: none"><li>• Remove from heat to cool environment</li><li>• Cool body slowly</li><li>• Have the victim drink water, SLOWLY</li><li>• No food or drink if victim is experiencing vomiting, cramping, or is losing consciousness</li></ul> <p>FEMA CERT Basic Training Unit 4: Disaster Medical Operations – Part 2 4-53</p>	<h3>Treatment</h3> <p>Explain that treatment is similar for both heat exhaustion and heat stroke.</p> <ol style="list-style-type: none"><li>1. Take the victim out of the heat and place in a cool environment.</li><li>2. Cool the body slowly with cool, wet towels or sheets. If possible, put the victim in a cool bath.</li><li>3. Have the victim drink water, SLOWLY, at the rate of approximately half a glass of water every 15 minutes. Consuming too much water too quickly will cause nausea and vomiting in a victim of heat sickness.</li><li>4. If the victim is experiencing vomiting, cramping, or is losing consciousness, DO NOT administer food or drink. Alert a medical professional as soon as possible, and keep a close watch on the individual until professional help is available.</li></ol>
<p><b>Display Slide 4-53</b></p> 	<p><b>Does anyone have any questions about any of the heat-related injuries covered in this section?</b></p> <p>Tell the group that the next section will address treatment for insect bites and stings.</p>



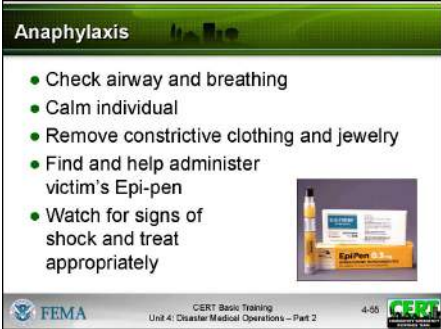

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<p>Discuss insects and/or animals that pose a particular threat to your locality.</p>  <p><b>Display Slide 4-54</b></p>	<p style="text-align: center;"><b><i>Bites and Stings</i></b></p> <p>Remind the participants that in a disaster environment, everything is shaken from normalcy, including insects and animals. In this time of chaos, insect bites and stings may be more common than is typical as these creatures, like people, are under additional stress.</p> <p>Tell the group that, when conducting a head-to-toe assessment, they should look for signs of insect bites and stings. The specific symptoms vary depending on the type of creature, but, generally, bites and stings will be accompanied by redness and itching, tingling or burning at the site of the injury, and often a welt on the skin at the site.</p> <p>Explain that, in general, treatment for insect bites and stings follows these steps:</p> <ol style="list-style-type: none"><li>1. Remove the stinger if still present by scraping the edge of a credit card or other stiff, straight-edged object across the stinger. Do not use tweezers; these may squeeze the venom sac and increase the amount of venom released.</li><li>2. Wash the site thoroughly with soap and water.</li><li>3. Place ice (wrapped in a washcloth) on the site of the sting for 10 minutes and then off for 10 minutes. Repeat this process.</li></ol> <p>Tell the participants that they may help the victim take his or her own allergy medicine (Benadryl, etc.), but that they may NOT dispense medications.</p>

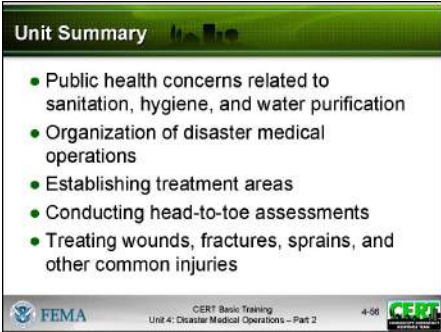
**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
<div data-bbox="188 436 626 762"></div> <p data-bbox="188 800 461 835"><b>Display Slide 4-55</b></p> <p data-bbox="188 875 617 1052">Demonstrate how to administer an Epi-pen. If possible, pass one around the room to familiarize the group with it.</p> <p data-bbox="188 1094 610 1383">Emphasize that CERT members do not administer medications, including over-the-counter products such as aspirin. CERT members can assist victims in administering their own medications (e.g., Epi-pen).</p> <div data-bbox="188 1436 266 1512"></div>	<p data-bbox="659 363 1260 396"><b>Bites and Stings and Allergic Reactions</b></p> <p data-bbox="659 436 1422 613">Tell the participants that the greatest concern with any insect bite or sting is a severe allergic reaction, or anaphylaxis. Anaphylaxis occurs when an allergic reaction becomes so severe that the airway is compromised. If you suspect anaphylaxis:</p> <ol data-bbox="659 627 1435 1087" style="list-style-type: none"><li>1. Check airway and breathing.</li><li>2. Calm the individual.</li><li>3. Remove constrictive clothing and jewelry as the body often swells in response to the allergen.</li><li>4. If possible, find and help administer a victim's Epi-pen. Many severe allergy sufferers carry one at all times.<ol data-bbox="753 934 1435 1035" style="list-style-type: none"><li>a. <b>DO NOT</b> administer medicine aside from the Epi-pen. This includes pain relievers, allergy medicine, etc.</li></ol></li><li>5. Watch for signs of shock and treat appropriately.</li></ol> <p data-bbox="659 1102 1406 1203">Remind the participants to keep a close watch on the individual's airway and breathing. Seek professional medical help as soon as possible.</p> <p data-bbox="659 1428 1419 1495"><b>Does anyone have any questions about any of the injuries covered in this section?</b></p>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
 <p><b>Display Slide 4-56</b></p>	<p><b><i>Unit Summary</i></b></p> <p>Begin the summary by first congratulating the group on completing the disaster medical operations sessions. Remind them that they have learned an enormous amount about how to recognize and treat life-threatening and other common disaster-related injuries — and that they have proven their knowledge and skills in high-pressure exercises.</p> <p>Summarize the key points of this unit:</p> <ul style="list-style-type: none"><li>▪ To safeguard public health, take measures to maintain proper hygiene and sanitation, and purify water if necessary. All public health measures should be planned in advance and practiced during exercises.</li><li>▪ Disaster medical operations include five functions:<ul style="list-style-type: none"><li>• Triage</li><li>• Treatment</li><li>• Transport</li><li>• Morgue</li><li>• Supply</li></ul></li><li>▪ Treatment areas must be established as soon as casualties are confirmed. Treatment areas should be:<ul style="list-style-type: none"><li>• In a safe area that is close to, but uphill, upwind, and, if possible, upstream from the hazard area</li><li>• Accessible by transportation vehicles</li><li>• Expandable</li></ul></li></ul>

**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

INSTRUCTOR GUIDANCE	CONTENT
	<p>Depending on the circumstances, a CERT may establish a central medical treatment location and/or treatment locations at incident sites where many victims have been injured.</p> <ul style="list-style-type: none"><li>▪ Head-to-toe assessments should be verbal and hands-on. Always conduct head-to-toe assessments in the same way — beginning with the head and moving toward the feet. If injuries to the head, neck, or spine are suspected, the main objective is to not cause additional injury. Use in-line stabilization and a backboard if the victim must be moved.</li><li>▪ Burns are classified as superficial, partial thickness, or full thickness depending on severity and the depth of skin layers involved. Treatment for burns involves removing the source of the burn, cooling the burn, and covering it. For full thickness burns, always treat for shock.</li><li>▪ The main first aid treatment for wounds consists of:<ul style="list-style-type: none"><li>• Controlling bleeding</li><li>• Cleaning</li><li>• Dressing and bandaging</li></ul></li><li>▪ In the absence of active bleeding, dressings must be removed and the wound checked for infection at least every 4 to 6 hours. If there is active bleeding, a new dressing should be placed <u>over</u> the existing dressing.</li><li>▪ Fractures, dislocations, sprains, and strains may have similar signs. Treat all suspected fractures, sprains, and strains by immobilizing the affected area using a splint.</li><li>▪ The key to treatment of cold-related injuries such as hypothermia and frostbite is to warm the victim slowly.</li></ul>


**COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2**

---

<b>INSTRUCTOR GUIDANCE</b>	<b>CONTENT</b>
	<ul style="list-style-type: none"><li>▪ Anaphylaxis is the most critical concern when an insect bite is suspected. Be prepared to assist the victim in using an Epi-pen and make sure to monitor the victim's airway until professional help arrives.</li></ul> <p>Remind the group that there is much more to learn about medical operations than could possibly be presented in two 2- to 3-hour sessions. Recommend strongly that the participants attend additional training that is offered through the American Red Cross or through community colleges.</p> <p>Remind the group also that disaster medical operations is a team effort and that, like all teams, they must practice together so that they can function as a team under pressure. Encourage the participants to attend exercise simulations whenever they are offered locally.</p>

COMMUNITY EMERGENCY RESPONSE TEAM  
UNIT 4: DISASTER MEDICAL OPERATIONS — PART 2

---

INSTRUCTOR GUIDANCE	CONTENT
<p data-bbox="196 457 422 478"><b>Homework Assignment</b></p> <ul data-bbox="215 499 594 703" style="list-style-type: none"><li>• Read unit to be covered in next session</li><li>• Bring necessary supplies for next session</li><li>• Wear appropriate clothes for next session</li><li>• Practice complete head-to-toe assessment on friend or family member</li></ul>  <p data-bbox="196 730 626 760">FEMA CERT Basic Training Unit 4: Disaster Medical Operations – Part 2 4-57 CERT</p>	<p data-bbox="659 363 1016 394"><b>Homework Assignment</b></p> <p data-bbox="659 436 1442 510">Ask the group to read and become familiar with the unit that will be covered in the next session.</p> <p data-bbox="659 548 1442 642">Tell them to try practicing a rapid head-to-toe assessment on a friend or family member. Don't forget to document!</p> <p data-bbox="659 877 1409 972">Thank all of the participants for attending the session and remind the group of the date and time of the next session, if necessary.</p>

**Display Slide 4-57**