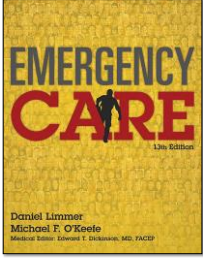


Emergency Care

THIRTEENTH EDITION



CHAPTER 11

Scene Size-Up

Daniel Limmer
 Michael T. O'Keefe
 Medical Editor: Edward T. Dickinson, MD, FACEP


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Scene Size-Up

- Elements
 - Checking scene safety
 - Taking Standard Precautions
 - Noting the mechanism of injury or nature of patient's illness
 - Determining the number of patients
 - Deciding what additional resources may be necessary

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NREMT Psychomotor Exam



National Registry of Emergency Medical Technicians®
Emergency Medical Technician Psychomotor Examination

PATIENT ASSESSMENT/MANAGEMENT – TRAUMA

Candidate: _____ Examiner: _____
 Date: _____ Signature: _____
 Scenario # _____


Actual Time Started: _____ Note: Areas denoted by **** may be integrated within sequence of Primary Survey/Resuscitation

Task	Possible Points
Takes or verbalizes appropriate PPE precautions	1
SCENE SIZE-UP	
Determines the scene/situation is safe	1
Determines the mechanism of injury/nature of illness	1
Determines the number of patients	1
Requests additional EMS assistance if necessary	1
Considers stabilization of the spine	1

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Scene Safety

- The only predictable thing about emergencies – they are unpredictable and danger looms!



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Scene Safety

- As you near the collision scene
 - Look and listen for other emergency units approaching.
 - Look for signs of a collision-related power outage.
 - Observe traffic flow.
 - Look for smoke in the direction of the collision scene.

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Scene Safety

- When within sight of scene
 - Look for clues indicating escaped hazardous materials.
 - Look for collision victims on or near the road.
 - Look for smoke not seen at a distance.
 - Look for broken utility poles and downed wires.

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Scene Safety

- When within sight of scene
 - Be alert for persons walking along side of road toward collision scene.
 - Watch for signals of police officers and other emergency service personnel.

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Scene Safety

- As you reach the scene
 - Follow instructions of person in charge.
 - Don appropriate protective apparel including head protection, a bunker coat, and an ANSI-approved reflective vest over your coat.



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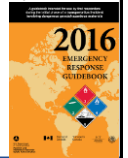
Establishing the Danger Zone

- Around the wreckage of every vehicle collision
- Specific guidelines
 - When there are no apparent hazards
 - Extend at least fifty feet in all directions
 - When fuel has been spilled
 - One hundred feet in all directions from wreckage and fuel

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Establishing the Danger Zone

- Specific guidelines
 - When a vehicle is on fire
 - At least one hundred feet in all directions
 - When wires are down
 - One full span of wires away from the poles to which broken wires are attached
 - When a hazardous material is involved
 - Check the *Emergency Response Guidebook (ERG)*



Crime Scenes and Acts of Violence

- Evaluate for threat of violence
 - Fighting or loud voices
 - Weapons visible or in use
 - Signs of alcohol or other drug use
 - Unusual silence
 - Knowledge of prior violence

Think About It

- Although any call can present a potential safety hazard, what types of calls might pose the highest threats of potential violence?

Standard Precautions

- Body substance isolation (BSI)
- Always have personal protective equipment (PPE) available.



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Nature of the Call (N.O.I.)

- Determining why EMS has been called
 - Mechanism of injury
 - Nature of illness

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Mechanism of Injury (M.O.I.)

- Forces that caused injury
- Understanding forces can predict injury patterns.
- Can be very useful in predicting injuries associated with certain types of motor vehicle crashes

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Mechanism of Injury



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Mechanism of Injury

- Motor-vehicle collisions
 - Head-on collisions
 - Up-and-over injury pattern
 - Down-and-under injury pattern



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Mechanism of Injury: Broadside or T-bone Collision



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Mechanism of Injury: Rear-end Collision



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Mechanism of Injury: Rollover Collision



Rollover collision.
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Mechanism of Injury

- Motor vehicle collisions
 - Rotational impact collisions
 - Cars are struck then spin.
 - Initial impact often causes subsequent impacts.



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Mechanism of Injury

- Falls
 - Adult
 - More than twenty feet
 - Child under fifteen years
 - More than ten feet (two to three times child's height)



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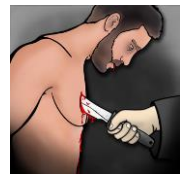
Mechanism of Injury

- Falls
 - Important factors
 - Height from which patient fell
 - Surface patient fell onto
 - Part of patient that hit the surface
 - Anything that interrupted fall

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Mechanism of Injury

- Penetrating trauma
 - Injury caused by object that passes through the skin or other body tissue
 - Classified by the velocity of the item that caused the injury



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Mechanism of Injury

- Penetrating trauma
 - Low-velocity (knife) injuries
 - Damage limited to area penetrated
 - May be multiple wounds
 - Medium-velocity (handgun/shotgun) and high-velocity (rifle) injuries may be anywhere in the body
 - Damage directly from the projectile
 - Pressure-related damage, or cavitation

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Mechanism of Injury

- Blunt-force trauma
 - Injury caused by a blow that strikes body but does not penetrate skin or other body tissues
 - Signs are often subtle and easily overlooked.
 - Maintain index of suspicion based on mechanism of injury

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Nature of the Illness

- Reason patient called EMS
- To begin identifying the nature of a patient's illness during the scene size-up, you must scan the entire scene.

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Nature of the Illness



Actively look for any additional patients, such as pedestrians or cyclists.
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Nature of the Illness

- Information may be obtained from many sources.
 - The patient
 - Family members or bystanders
 - The scene

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Number of Patients and Adequacy of Resources

- How many patients present?
- Sufficient resources on hand to care for all patients?

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Number of Patients and Adequacy of Resources

- Does the situation require specialized resources?
 - Fire
 - Technical rescue
 - Hazardous materials response

Chapter Review

Chapter Review

- Scene size-up is the first part of the patient assessment process.
- It is important during scene size-up to determine what, if any, threats there may be to your own safety and to the safety of others at the scene, then to take appropriate Standard Precautions.

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Chapter Review

- Next it is important to determine the nature of the call by identifying the mechanism of injury or the nature of the patient's illness.
- Finally, you must take into account the number of patients and other factors at the scene to determine if you will need additional help.

Remember

- Determine what, if any, threats there may be to your own safety and to the safety of others at the scene.
- Take appropriate Standard Precautions.

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Remember

- Determine the nature of the call by identifying the mechanism of injury or nature of a patient's illness.
- Determine the number of patients and any additional resources necessary.

Questions to Consider

- For each of these dangers, what actions must be taken to remain safe at a collision scene?
 - Leaking gasoline
 - Toxic or hazardous material spill
 - Vehicle on fire
 - Downed power lines

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Questions to Consider

- What are common mechanism-of-injury patterns for the following situations?
 - Head-on collision
 - Rear-end collision
 - Fall from a height

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Critical Thinking

- You are called to the scene of a shooting at a fast food restaurant. En route, you plan your scene size-up strategy. What actions do you anticipate taking on arrival?

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