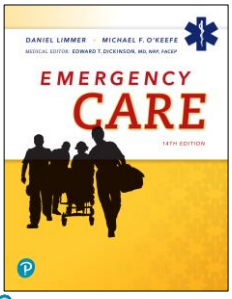
Emergency Care

Fourteenth Edition



Chapter 11

Scene Size-Up

Topic

- Scene Size-Up

Scene Size-Up

Back to Topic

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

Scene Safety (1 of 5)

- The only predictable thing about emergencies is they are often unpredictable and can pose many dangers.

Scene Safety (2 of 5)

- 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.

Scene Safety (3 of 5)

- 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.

Scene Safety (4 of 5)

- 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.

Scene Safety (5 of 5)

- 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.
  - Sniff for odors that may indicate a hazardous materials release.

Establishing the Danger Zone (1 of 2)

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

Establishing the Danger Zone (2 of 2)

- 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.

Nature of the Call

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

Mechanism of Injury (1 of 10)

- Force(s) that may have caused injury
- Understanding forces can predict injury patterns.
- Can be very useful in predicting injuries associated with certain types of motor vehicle crashes

Mechanism of Injury (2 of 10)

Clues such as exterior damage may lead you to suspect certain types of injuries.
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Mechanism of Injury (3 of 10)

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

Mechanism of Injury: Head-on Collision (1 of 2)

Clues such as a deployed air bag may lead you to suspect certain types of injuries. **© Daniel Limmer**

Mechanism of Injury: Head-on Collision (2 of 2)

Clues such as a damaged windshield may lead you to suspect certain types of injuries.

Mechanism of Injury (4 of 10)

- Motor vehicle collisions
  - Rear-end collisions
  - Side-impact collisions (broadside or "T-bone")
  - Rollover collisions

Mechanism of Injury: Rear-end Collision

Rear impact.
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Mechanism of Injury: Side-Impact

Side impact.
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Mechanism of Injury: Rollover Collision

Rollover collision.
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Mechanism of Injury (5 of 10)

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

Mechanism of Injury (6 of 10)

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

Mechanism of Injury: Severe Fall

The characteristics of a fall may provide valuable clues to a patient's injuries.

Mechanism of Injury (7 of 10)

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

Mechanism of Injury (8 of 10)

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

Mechanism of Injury (9 of 10)

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

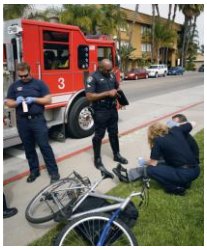
Mechanism of Injury (10 of 10)

- 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

Nature of the Illness (1 of 3)

- 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.

Nature of the Illness (2 of 3)



Actively look for any additional patients, such as pedestrians or cyclists.
© Kevin Link/CMSP

Nature of the Illness (3 of 3)

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

Number of Patients and Adequacy of Resources

- Questions to ask
  - How many patients present?
  - Sufficient resources on hand to care for all patients?
- Try to anticipate the maximum numbers of patients and radio for help accordingly.
  - Follow local protocols.

Chapter Review

Chapter Review (1 of 2)

- 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.

Chapter Review (2 of 2)

- 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 (1 of 2)

- 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.

Remember (2 of 2)

- 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 (1 of 2)

- 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

Questions to Consider (2 of 2)

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

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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