

SCENE SIZE UP



**Identifying the
Identifiable**

OBJECTIVES

- Identify key terms
- Define Body Substance Isolation
- Describe tools used for BSI
- Explain On-going nature of scene size up
- Define Scene Safety
- Describe considerations in establishing danger zone
- Describe how to determine if patient is medical or trauma

SCENE SIZE-UP



Definition

The steps taken when approaching the scene of an emergency call:

- **Checking Scene Safety**
- **Taking BSI**
- **Noting mechanism of injury/illness**
- **Number of patients**
- **What if any resources are needed**

Body Substance Isolation

- **Determine what BSI items will be required at the scene**
 - **Gloves (the minimum standard)**
 - **Gown**
 - **Mask**
 - **Eye Protection**
 - **Mask**

When in doubt, WEAR IT ALL!!!!

Scene Safety



Scene Safety

- **The only predictable thing about emergencies is they are often unpredictable and can pose many dangers**
- **What are potential threats to emergency providers at an EMS scene???**

Is it Safe to Approach the Patient?

- **Crash / Rescue Scenes**
- **Toxic Substances – low oxygen areas**
- **Crime Scenes**
- **Unstable Surfaces – slope, ice, water**



Protection

- **Protect the Patient – environmental concerns**
- **Protect Bystanders – Don't let a bystander become a patient, if appropriate**
- **Protect Yourself**
- **If a scene is unsafe, MAKE IT SAFE. Otherwise DO NOT ENTER**

Scene Safety Considerations

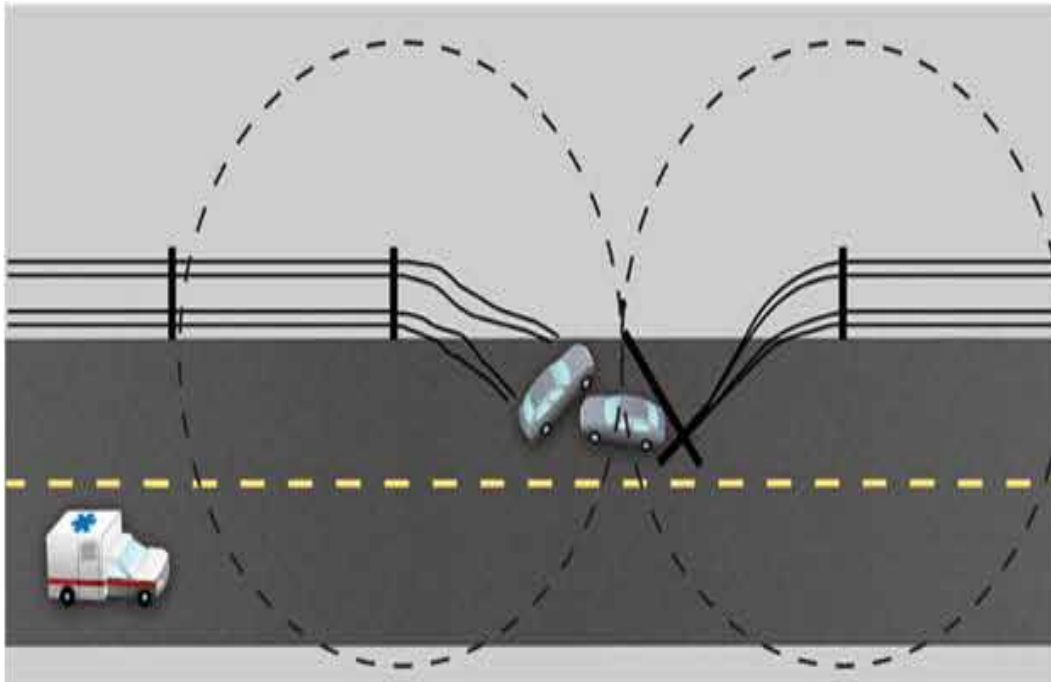
- **Approaching Scene**
 - Look and Listen for other emergency units
 - Look for signs of collision related power outage
 - Observe traffic flow
 - Look for smoke in direction of accident
- http://www.youtube.com/watch?v=dT0Oq95cMAA&feature=player_detailpage#t=2s

Scene Safety Considerations

- **When within sight of scene**
 - **Look for HAZMAT**
 - **Look for collision victims**
 - **Check for smoke**
 - **Look for broken utility poles and downed wires**
 - **Be alert to bystanders / other emergency workers**



Establish Danger Zone



Downed Lines

In incidents involving downed electrical wires and damaged utility poles, the danger zone should extend beyond each intact pole for a full span and to the sides for the distance that the severed wires can reach. Stay out of the danger zone until the utility company has deactivated the wires, or until trained rescuers have moved and anchored them.

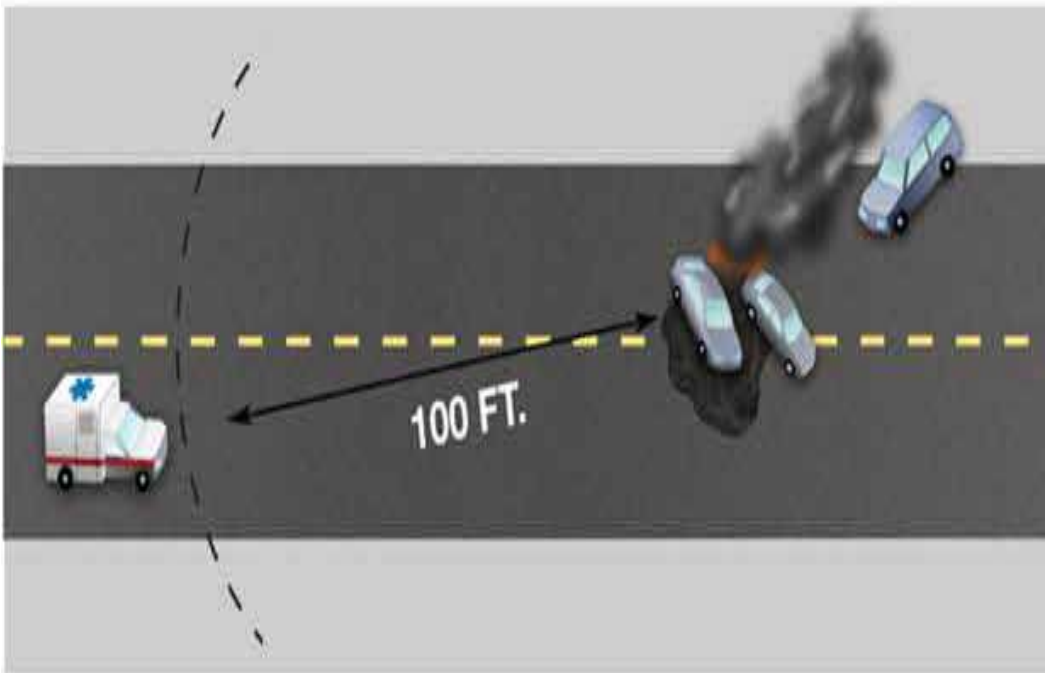
Establish Danger Zone



Hazardous Materials

Leaking containers of dangerous chemicals may produce a health as well as a fire hazard. When chemicals have been spilled, whether fumes are evident or not, the ambulance should be parked upwind. If the hazardous material is known, seek advice from experts such as CHEMTREC through the Incident Commander.

Establish Danger Zone



Vehicle on Fire

If no other hazards are involved, such as dangerous chemicals or explosives, the ambulance should park no closer than 100 feet (about 30 meters) from a burning vehicle. Park upwind.

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



Nature of the call

- **Determining why EMS has been called**
 - Mechanism of Injury (Trauma)
 - Nature of Illness (Medical)

Nature of Illness / Mechanism of Injury

MEDICAL

- Determine why EMS was activated
- Determine # of Patients – if # of patients is greater than response can handle – initiate MCI
 - Obtain additional help prior to contact with patients
 - Begin triage

TRAUMA

- Determine MOI through inspection and interview
- Determine # of patients – if # of patients is greater than response can handle – initiate MCI
 - Obtain additional help prior to contact with patients
 - Begin triage

Mechanism of Injury

- Forces that caused injury
- Understanding forces can predict injury patterns
- Very useful in predicting injuries of motor vehicle accidents



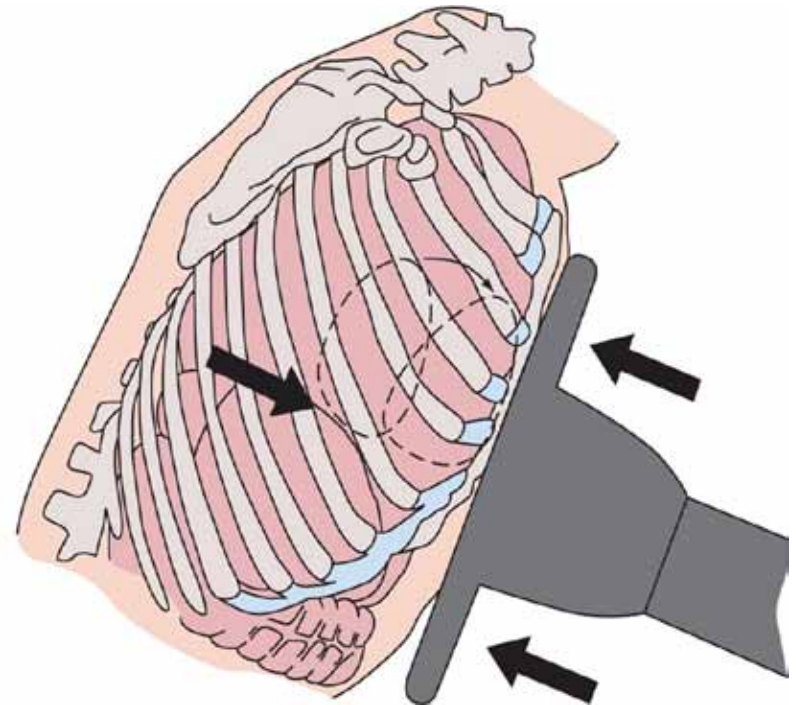
Mechanisms of Injury

- Ejection from vehicle
- Death in same passenger compartment
- Falls > 20 feet
- Roll-over of vehicle
- Vehicle – pedestrian collision
- Motorcycle crash
- Bicycle collision
- Burns
- Violence

Three Collisions in a motor vehicle crash

- 1. Vehicle Collision**
Vehicle strikes an object
- 2. Body collision**
Body strikes interior of vehicle
- 3. Organ collision**
Organ strikes interior of body

(C)



Law of Inertia

A body in motion will remain in motion unless acted upon by an outside force (being stopped by striking something)

Explains the three collision rule

Head - on Collision

Vehicle Impact



Up and Over Injury



Head - On Collision

Vehicle Impact



Down and Under Pattern



Rear End Collision



Rear End Collision Mechanism

Body moves violently back



Then violently forward



Rollover Collision



Side Impact Collision

Vehicle Impact



Body Impact



Severe Fall

- Adult - more than 20 ft
- Child under 15 years: > 10 ft
(2-3 times child's height)

FACTORS

- Surface
- Height
- Body part that hit ground
- Anything interrupt fall??



Penetrating Trauma

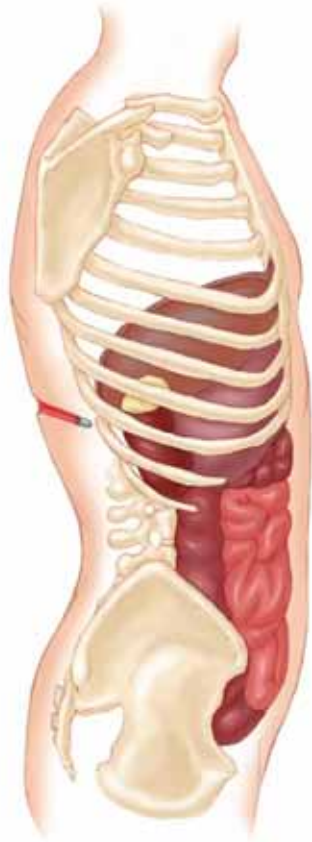
Low Velocity

- Usually propelled by hand
- Injuries typically limited to area that was penetrated and immediate organs
- May be multiple wounds

Medium – High Velocity

- Handgun/Shotgun (Medium) or Rifle (High)
- Damage from bullet itself
- Damage from cavitation
 - Bullet creates a pressure wave as it enters, causing a cavity larger than bullet. Cavity is temporary but leaves damage in path

Penetrating Trauma



(A)



(B)



(C)

Blunt Force Trauma

- Caused by striking body, not penetrating body
- Signs are often subtle and easily overlooked
- Maintain suspicion based on mechanism of injury (MOI)



Number of Patients and Resources

- How many patients on scene
- Can your unit handle?
- Does the situation require specialized resources
- **GET HELP QUICK**
- Better to over estimate than under estimate



Remember

- **Size up is always your first step**
- **First assures your safety and the safety of other rescuers**
- **Then assures appropriate resources**
- **Gets you thinking about possible injuries and necessary treatment**

QUESTIONS????????????????

