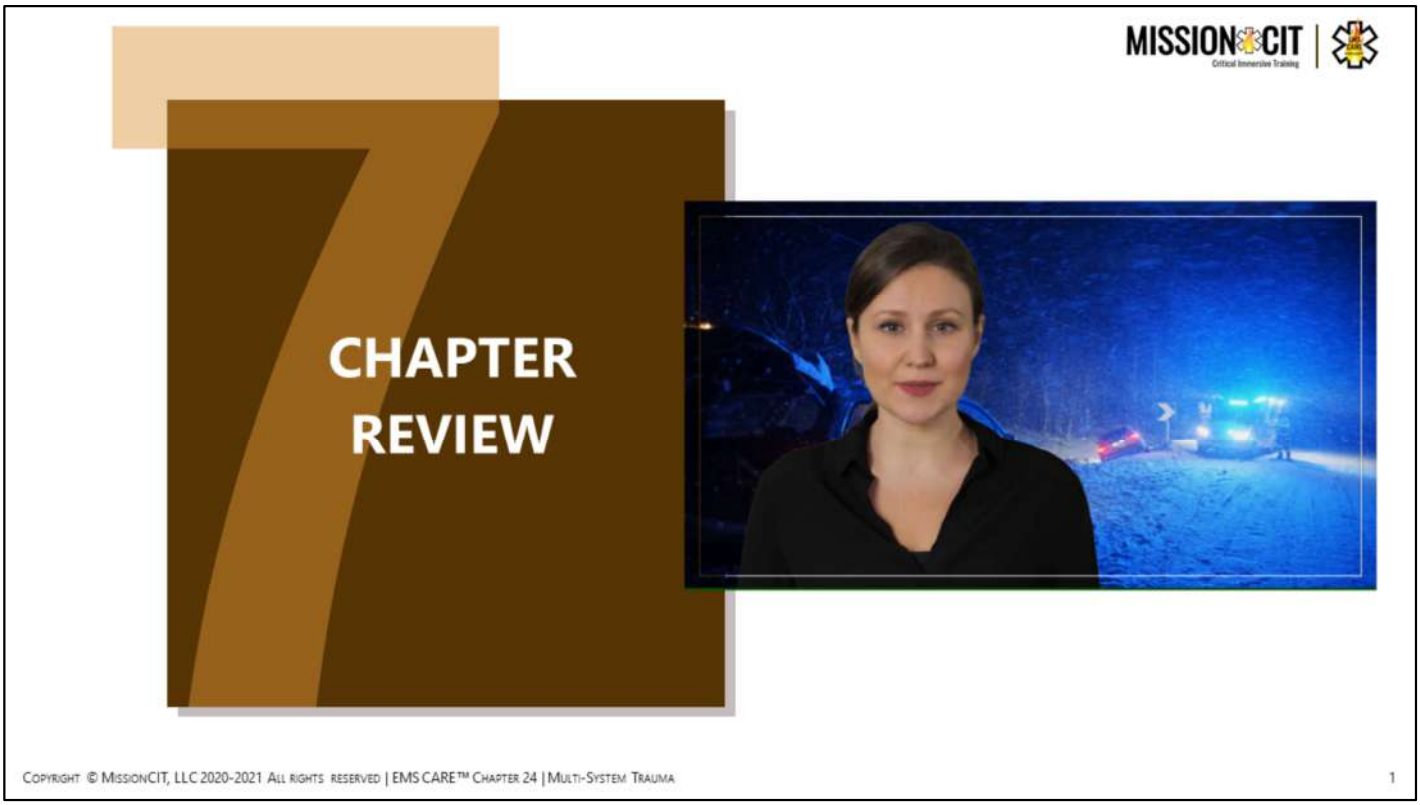
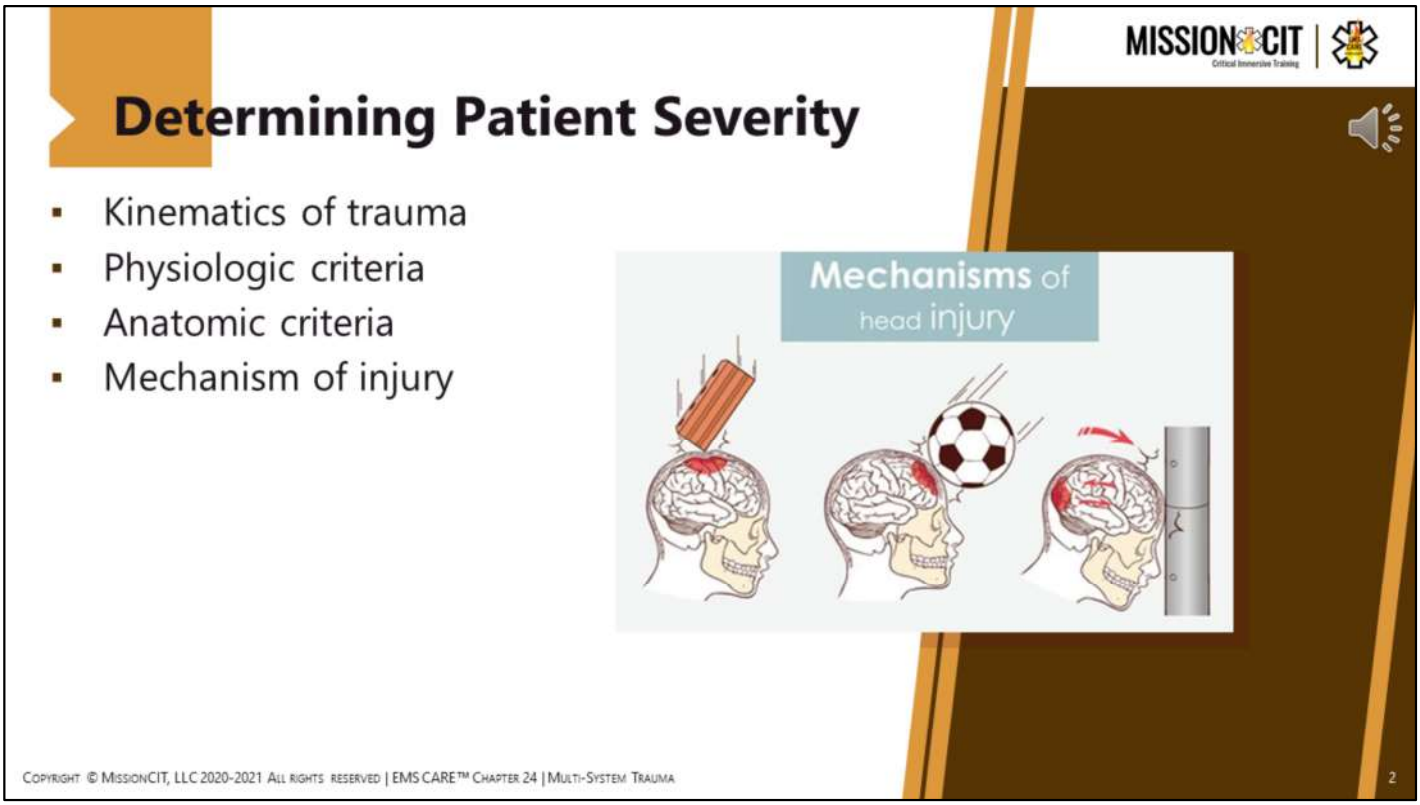


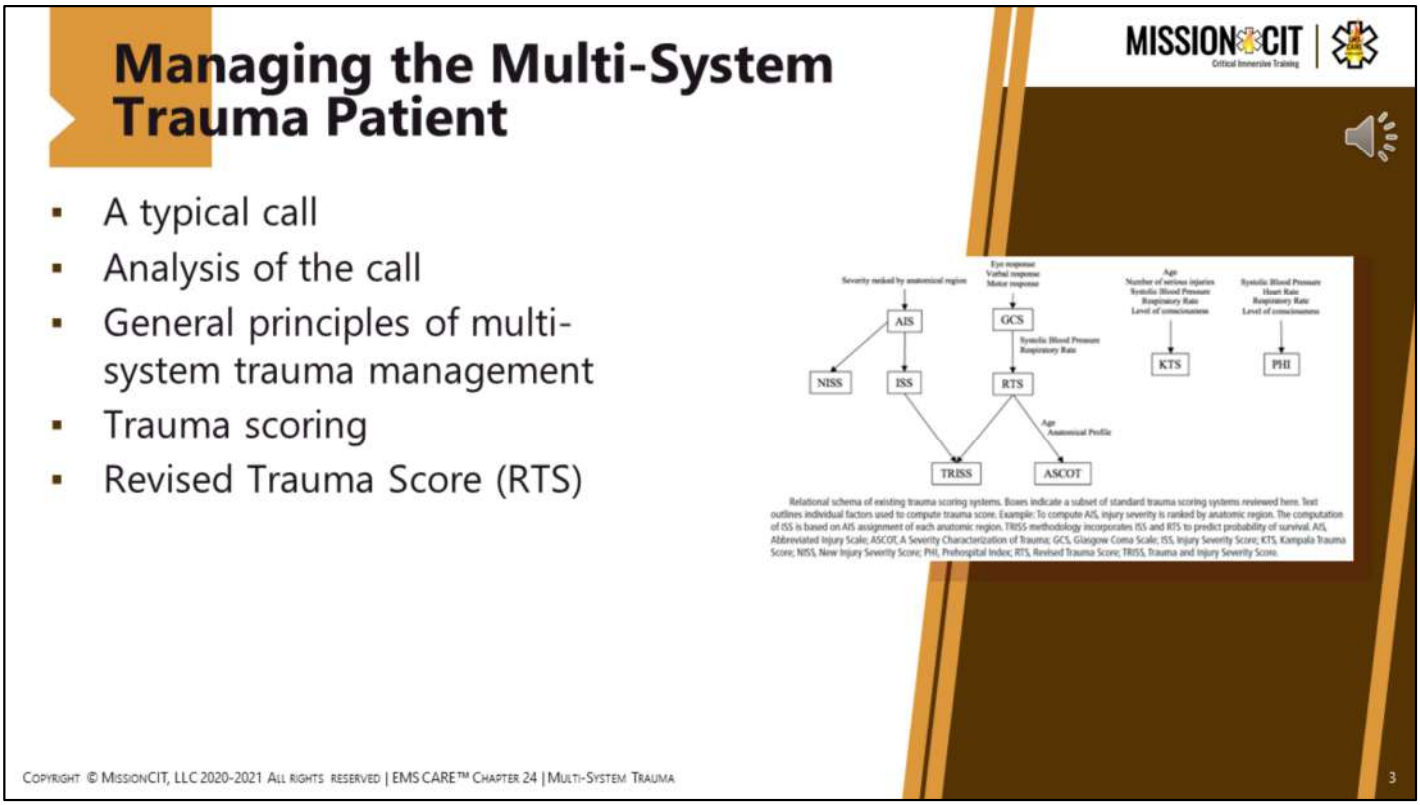
Hi there again. Welcome to the chapter review for multi-system trauma. Here we quickly recap all the lessons we have studied so far. Remember, there is a quiz following the review.



In the first lesson, we discussed the importance of kinematics of trauma while looking at a trauma scene. You must look at actual physiologic injuries, anatomic locations, and mechanism of injury to adequately judge patient severity and transport priority. Special considerations, such as age and underlying medical condition, may alter the initial severity decisions.

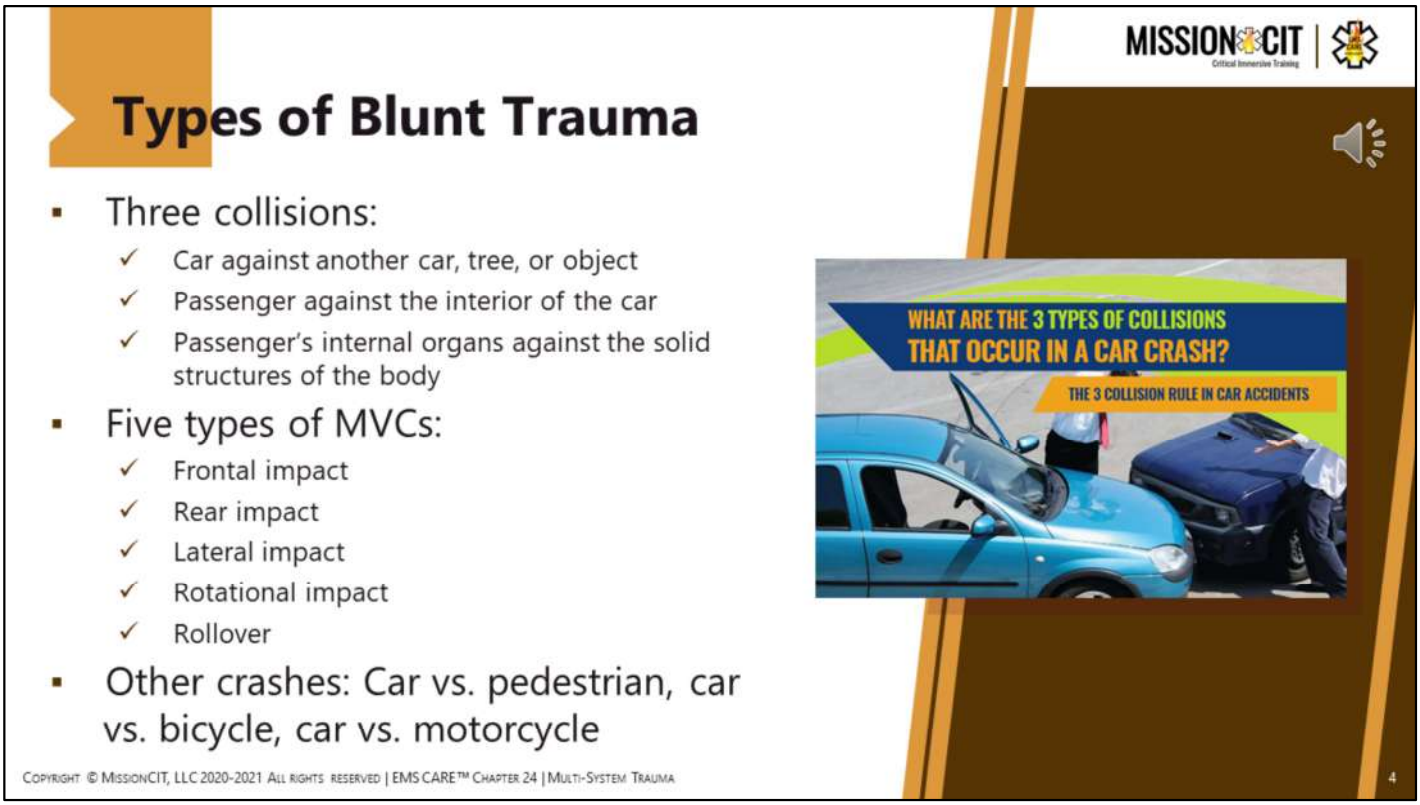
- Physiologic criteria is rapid identification of critically injured patients by assessing level of consciousness and measuring vital signs
- If a patient has normal physiology but has an anatomic injury that might require the highest level of care within the defined trauma system
- An injured patient who does not meet physiologic or anatomic criteria should be evaluated in terms of mechanism of injury (MOI) to determine if the injury might be severe but occult

You must know the difference between blunt and penetrating trauma. And you must determine whether persons who have not met physiologic, anatomic, or mechanism steps have underlying conditions or comorbid factors.



Moving on, we spoke about the care of the multisystem trauma patient, which usually begins in the prehospital setting. Protocols are in place for emergency providers who initiate care. You need to keep the following in mind:

- A typical call: In a typical call the priority information is the location, the number of patients, the mechanism, and details about the mechanism that give an indication of the level of trauma
- Analysis of the call: Follow priorities, do not delay transport, and show good judgment
- General principles of multi-system trauma management: The best way to prepare for multi-system trauma is to practice and develop teamwork before the call
- Trauma scoring systems are used by researchers, registries, or individuals to describe injury severity or to estimate the prognosis of trauma patients
- Revised Trauma Score (RTS): This is a physiologic scoring system, designed for use based on the initial vital signs of a patient



In the third lesson, we talked about blunt trauma that results from an object making contact with the body.

Talking about vehicular crashes, a crash typically consists of three collisions:

- Car against another car, tree, or object
- Passenger against the interior of the car
- Passenger's internal organs against the solid structures of the body

MVCs can be divided into the following five types:

- Frontal impact
- Rear impact
- Lateral impact
- Rotational impact
- Rollover

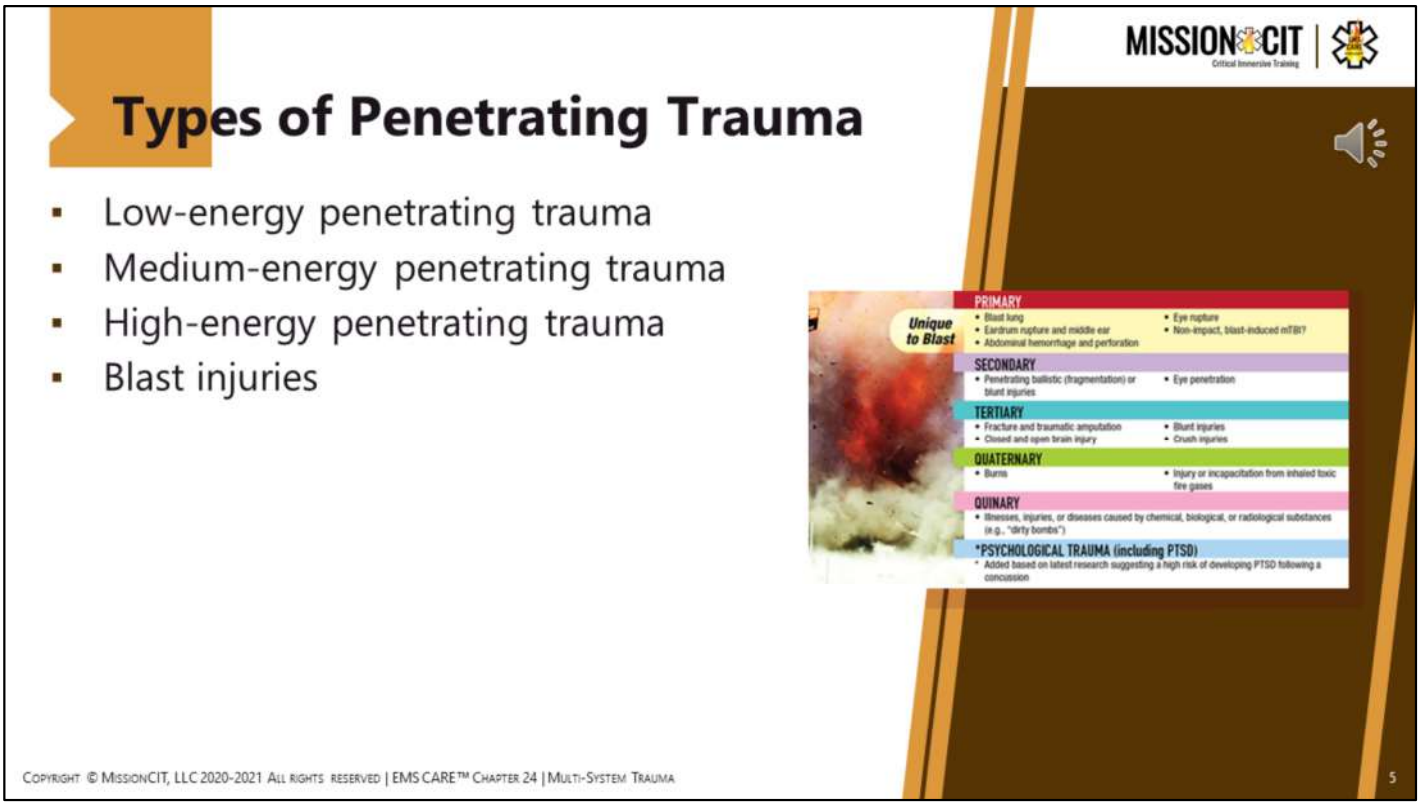
Other types of crashes are:

- Car versus pedestrian

- Car versus bicycle
- Car versus motorcycle

We also discussed falls, blast injuries, and gunshot wounds.

You may revisit the lesson to refresh your memory.

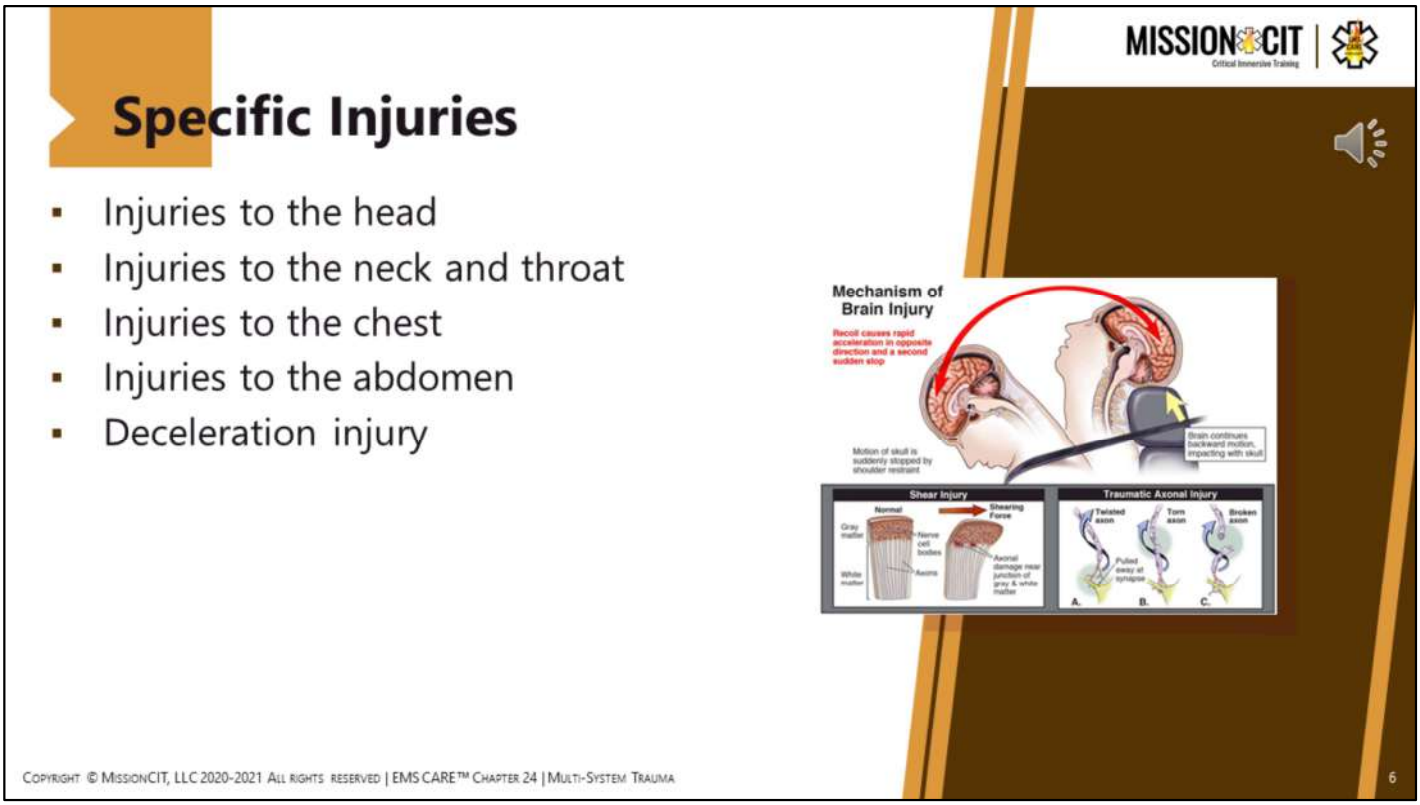


Next, we mentioned penetrating trauma, which is caused by a foreign object piercing the skin, which damages the underlying tissues and results in an open wound.

Penetrating trauma types:

- Low-energy penetrating trauma
- Medium-energy penetrating trauma
- High-energy penetrating trauma, and
- Blast injuries

The signs and symptoms of the patient will vary based on the organ struck.



In the next lesson, we mentioned specific injuries. Here is a recap:

- Injuries to the head: Disability, bleeding or swelling inside the skull, unobvious signs or symptoms.
- Injuries to the neck and throat: Airway problems, swelling preventing blood flow to the brain, air embolism, crushing injury.
- Injuries to the chest: Broken ribs, bruising to the heart, tearing of vessels inside the chest, pneumothorax.
- Injuries to the abdomen: Tear, laceration or fracture of solid organs. Rupture of hollow organs thereby causing toxic digestive chemicals to leak.
- Injuries to the spine: A traumatic spinal cord injury can stem from a sudden, traumatic blow to the spine that fractures, dislocates, crushes or compresses one or more of the vertebrae. It can also result from a gunshot or knife wound that penetrates and cuts the spinal cord.
- Deceleration injury can be defined as an impact injury to a body within or upon a rapidly moving object caused by the forces exerted when the object comes to a complete stop.



Lastly, the final lesson discussed the care during multi-system trauma. Here we mentioned:

- The need to follow Golden Principles of Out-of-Hospital Trauma Care.
- Critical thinking in multi-system trauma care: The steps include assessment, analysis, construction of a plan, action, reassessment, and changes along the way.
- Personal safety: Personal safety is most important when arriving on scene, and throughout care. Assess your environment for: Passing automobiles, hazardous situations, hostile environments, unsecured crime scenes, and suicide patients who may become homicidal.
- Key elements: Airway, ventilation, and oxygenation are key elements to success. Oxygenation cannot occur when patients are bleeding profusely.
- Patient assessment: Focus on the chief complaint while assessing the patient as a whole and rapidly perform a physical examination.
- Patient transport: Indicators for the decision to transport rapidly include mechanism of injury, physical findings, management of transport and destination.

So, we have completed the topic of multi-system trauma. Coming up next is a 15 question test. You will need to score 75% or better to pass and receive credit for this topic.

Good Studying and Good Testing.