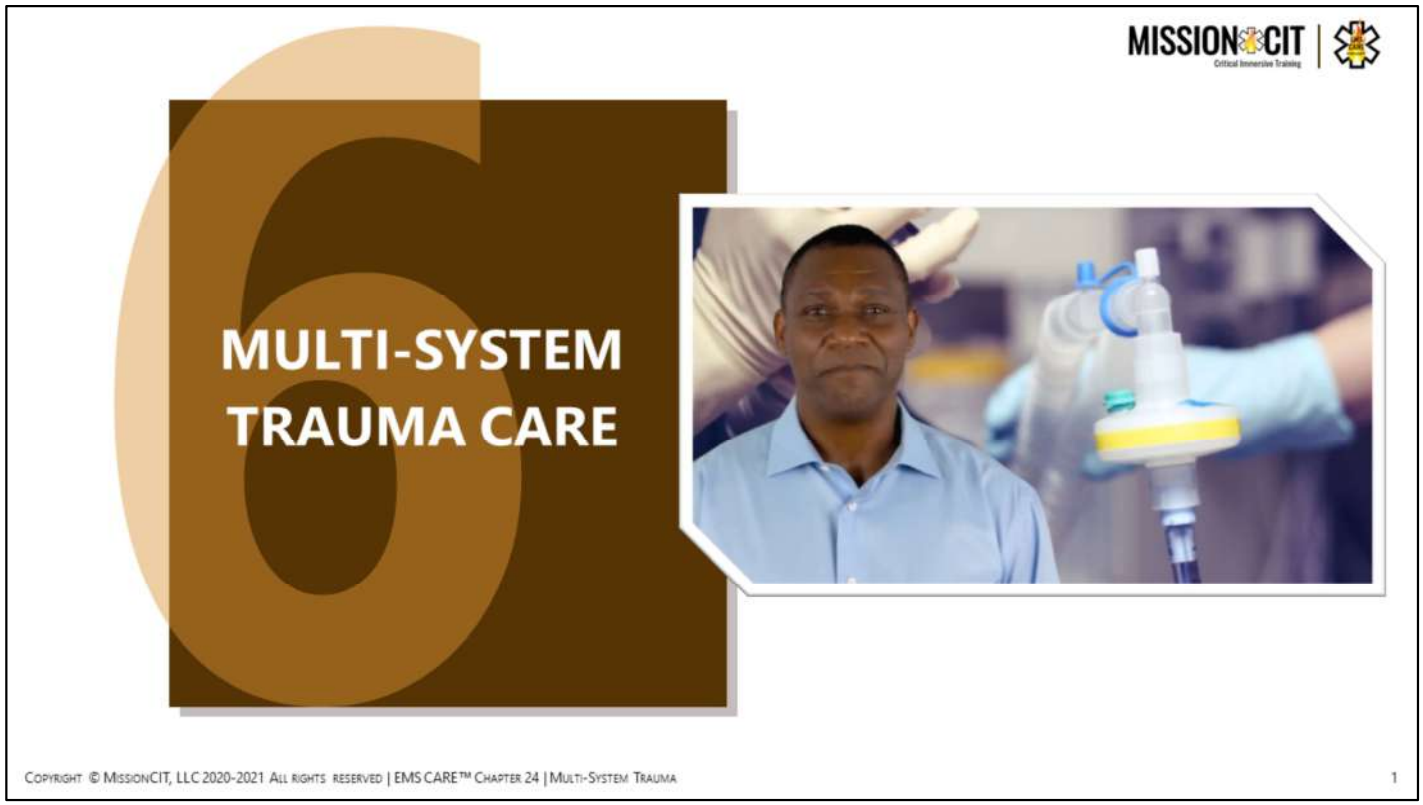
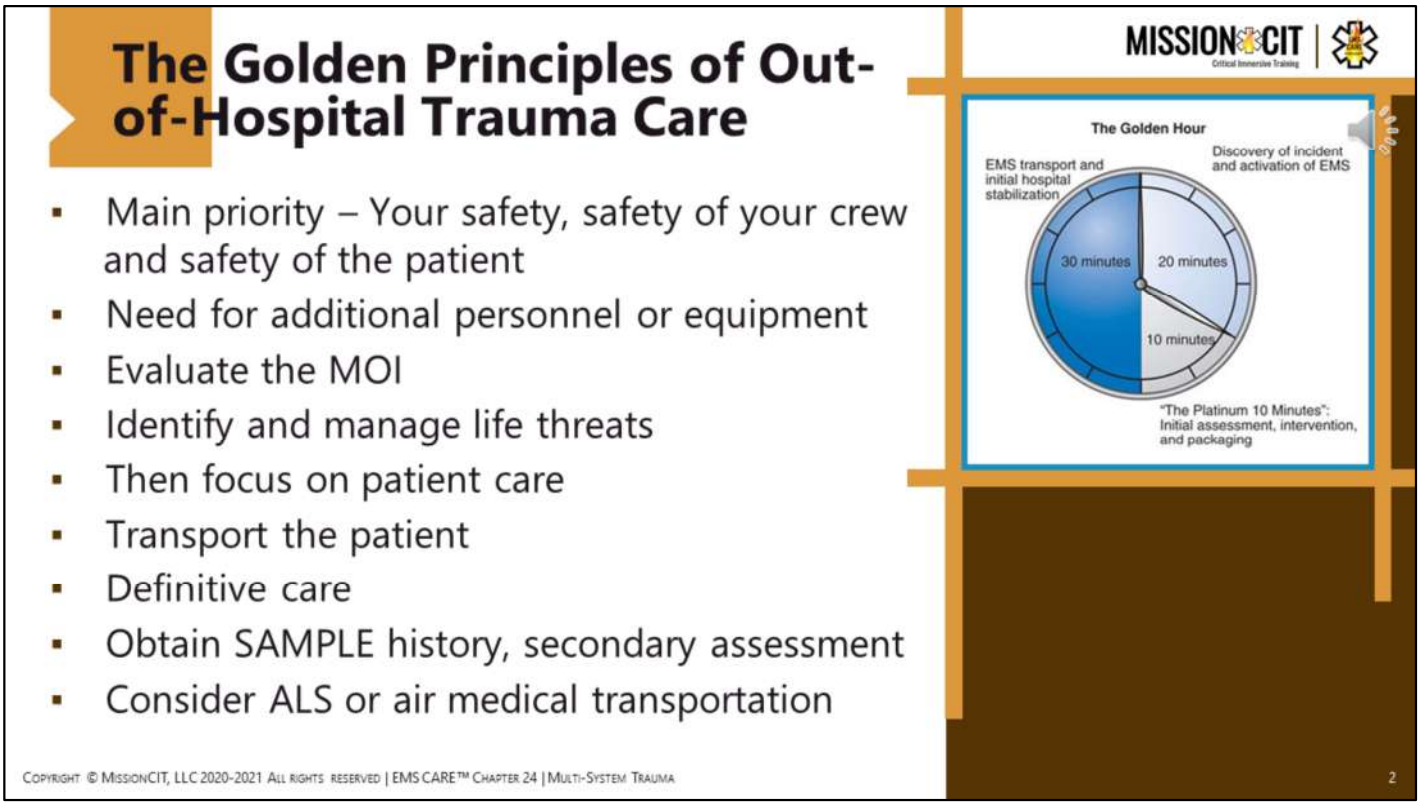
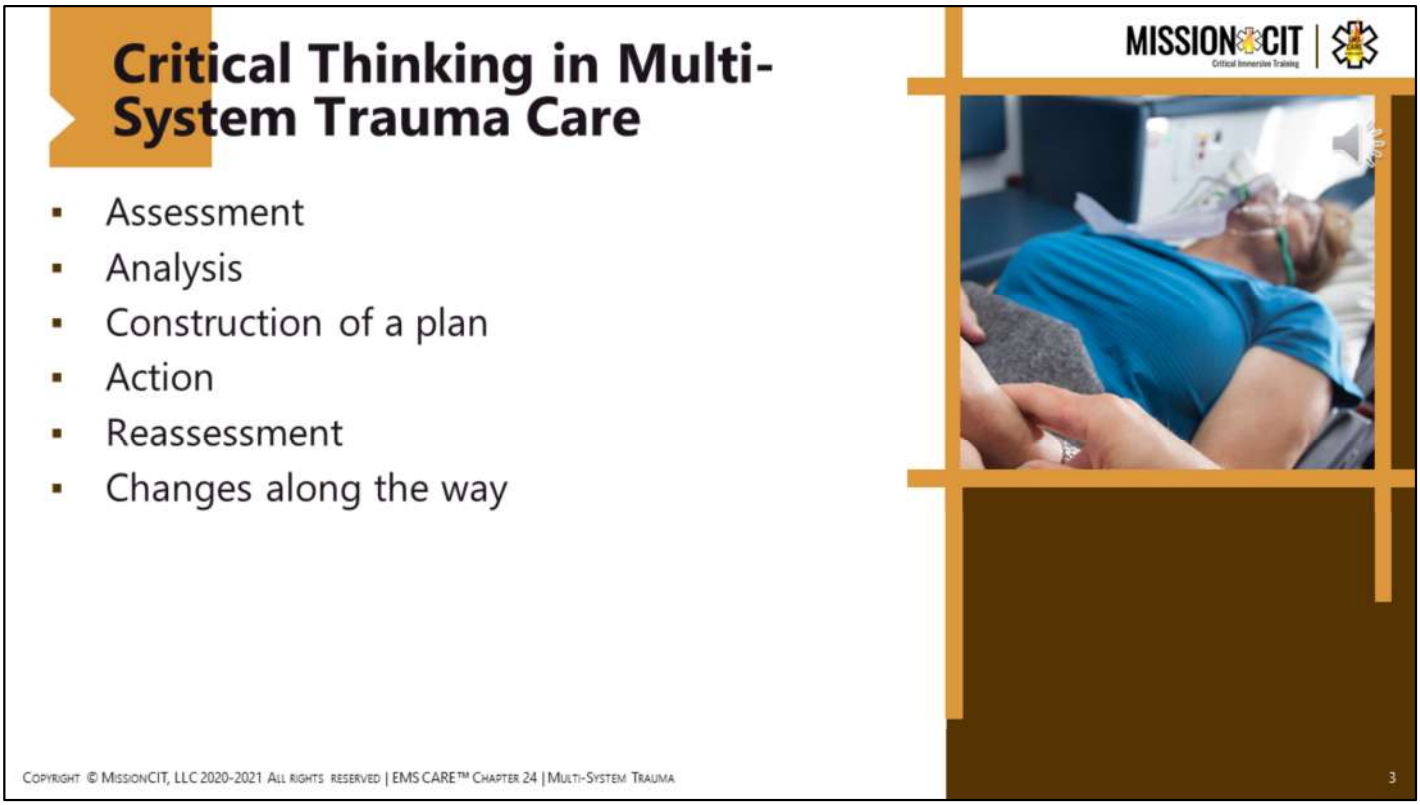


Thank you, Missah! We are now going to discuss multi-system trauma care.

Critically ill patients with traumatic injuries are often complex, encompassing a wide array of problems. Their care often starts before they arrive at the hospital, continues from the time they arrive in the emergency room, and will likely consist of days in the hospital with rehabilitation after. Four aspects need to be considered in the prehospital phase: Rescue, triage, stabilization and transfer.



- Your main priority is to ensure your safety, safety of your crew and the safety of the patient.
- Determine the need for additional personnel or equipment.
- Evaluate the MOI.
- Identify and manage life threats.
- Then focus on patient care. Assess and manage the airway, breathing, and circulation. Ensure that basic shock therapy is completed. Protect the spine and proceed with spinal immobilization if indicated. Support ventilation and oxygenation – oxygen saturation greater than 95 percent.
- Control external hemorrhage.
- Transport the patient immediately to the appropriate facility. Backboards serve as entire body splints when patients are appropriately secure in unstable patients.
- In most patients with multisystem trauma, definitive care requires surgical intervention. On-scene time should be limited to 10 minutes or less.
- During transport, obtain a SAMPLE history and complete a secondary assessment.
- Consider ALS intercept and/or air medical transportation.



The rapid assessment that takes place in trauma situations demands critical thinking on the part of the rescuer. Maximizing survivability in the trauma victim means you must act quickly and apply these critical thinking skills in rapid succession. Here are the steps you should take when treating the trauma patient.

- Assessment – What is going on, what needs to be done, and what resources are available
- Analysis – Evaluating each of the above factors and cross-referencing them with your knowledge, defining steps that will provide the best care
- Construction of a plan – Identifying the steps that will lead to the best patient care and reviewing them critically
- Action – Enacting the plan and putting it in motion
- Reassessment – Is your plan working, or does it need to be tweaked as conditions change?
- Changes along the way – Being flexible in the face of changing conditions, able to adjust your plan of action without the worry of appearing indecisive

Utilizing critical thinking in your assessment and treatment of the trauma patient is the key to good decision-making. Do not develop “tunnel” vision by focusing on patients who complain of pain and are screaming for your help while other quiet patients who may be hypoxic or bleeding internally cannot call out for help because of decreases in the level of

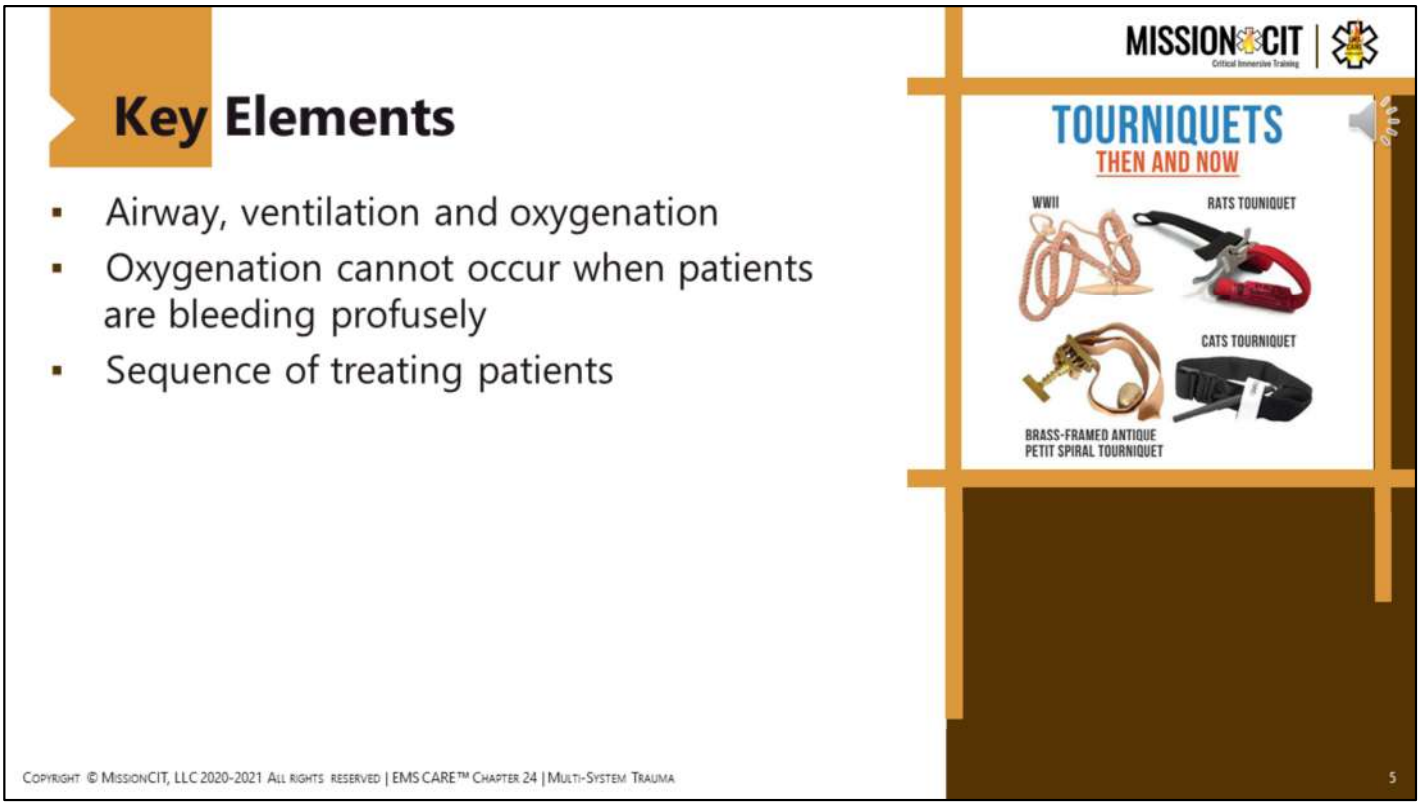
consciousness. Sometimes an obvious injury does not have the most potential for harm.



Personal safety is most important when arriving on the scene, and throughout care. Remember, an injured EMT cannot provide care.

Be sure to assess your environment for:

- Passing automobiles
- Hazardous situation
- Hostile environments
- Unsecured crime scenes
- Suicide patients who may become homicidal



Airway, ventilation, and oxygenation are key elements to success:

- Airway must be opened and clear throughout care
- Adequate ventilation must occur – patients with low minute volume need assisted ventilation
- Administration of high concentrations of oxygen

Oxygenation cannot occur when patients are bleeding profusely:

- Stop arterial bleeding rapidly
- Consider the use of tourniquets if severe extremity bleeding cannot be controlled with direct pressure

The sequence of treating patients:

- Not all treatments are linear. At times care must be adjusted depending on the needs of the patient
- Example: Control arterial bleeding in an awake patient first, much care can be done en route

Patient Assessment

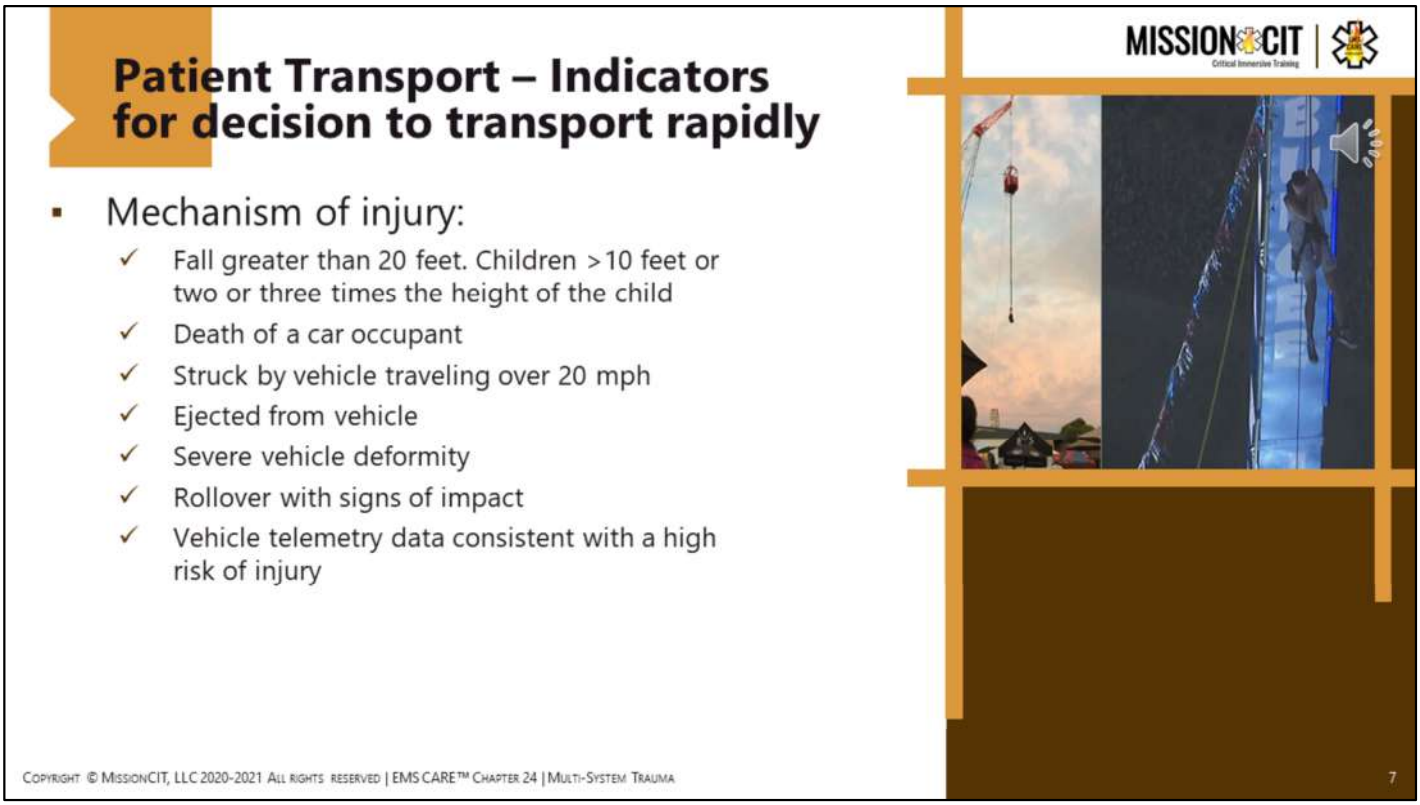
- Perform physical examination
- Focus on chief complaint
- Assess patient as a whole



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When you are caring for a patient who has experienced a significant MOI and the patient is considered to be in serious or critical condition, you should rapidly perform a physical examination.

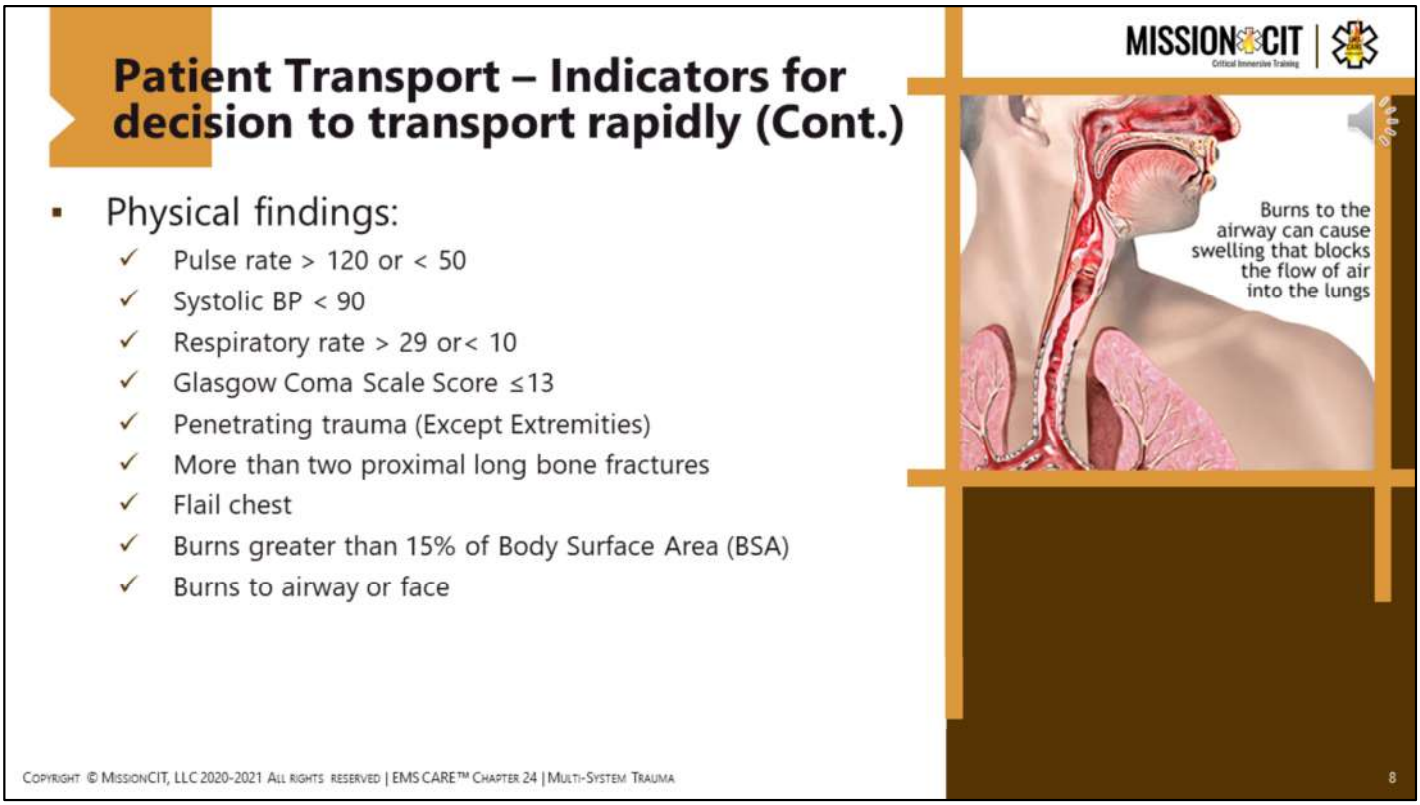
With a patient who has experienced a nonsignificant MOI, focus on the chief complaint while assessing the patient as a whole.



Here are some indicators for your decisions to transport rapidly.

Mechanism of injury:

- A fall greater than 20 feet
    - For children: Height >10 feet or two or three times the height of the child
- Death of a car occupant
- Struck by a vehicle traveling over 20 mph
- Ejected from a vehicle
- Severe vehicle deformity
- Rollover with signs of impact
- Vehicle telemetry data consistent with a high risk of injury



Here are some physical findings indicators:

- Pulse rate > 120 or < 50
- Systolic BP < 90
- Respiratory rate > 29 or < 10
- Glasgow Coma Scale Score ≤13
- Penetrating trauma (Except Extremities)
- More than two proximal long bone fractures
- Flail chest
- Burns greater than 15% of Body Surface Area (BSA)
- Burns to airway or face



Transport management and destination decisions:

Scene time:

- Survival of critically injured trauma patients is time-dependent.
- On-scene time for critically injured patients should be less than 10 minutes.

Type of transport:

- Modes of transport ultimately come in one of two categories:
    - Ground EMS units are staffed by EMTs and paramedics.
    - Air EMS units or critical care transport units are staffed by critical care nurses and paramedics.

Destination selection:

- Trauma centers are classified into Levels I through IV, with Level I having the most resources, followed by Levels II, III, and IV, respectively.
    - Level I facility provides every aspect of trauma care
    - Level II facility provides initial definitive care
    - Level III facility provides assessment, resuscitation, emergency care, and

stabilization

- Level IV facility provides advanced trauma life support

- Trauma centers are categorized as either adult or pediatric trauma centers.

Special considerations:

- Remain calm.
- Complete an organized assessment.
- Correct life-threatening injuries.
- Do no harm.
- Never hesitate to contact ALS backup or medical control for guidance.

With this, we end this lesson and Missah will handle the chapter review next.