

Welcome to the chapter review section, where we will quickly recap this chapter on Highway Safety and Vehicle Extrication.

Good Studying.

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LESSON 1 – AMBULANCE SAFETY PROGRAMS

- 29 fatal crashes involving ambulances each year, 33 fatalities
- NHTSA programs to address issues:
  - ✓ NASS
  - ✓ CDS
  - ✓ GES
- State specifics laws and programs



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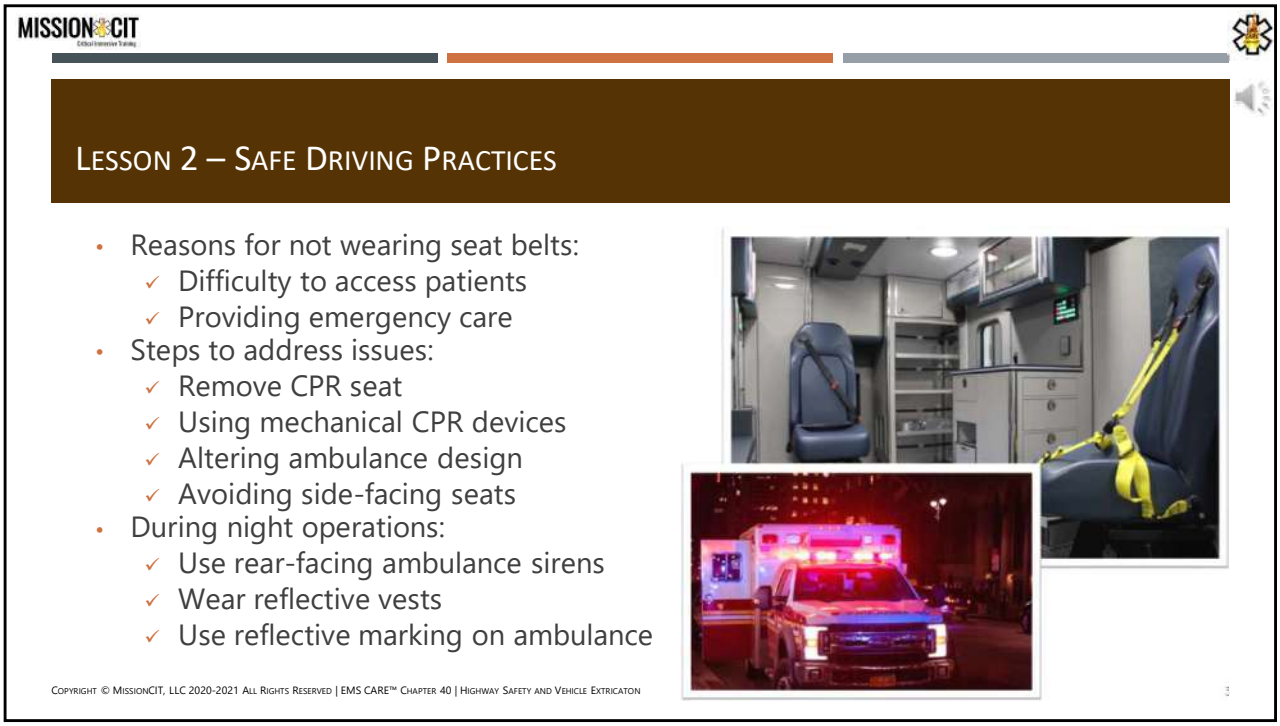
In the first lesson, we saw about ambulance crashes and the safety programs implemented to prevent them. As per the analysis of NHTSA, there are about 29 fatal crashes involving ambulances each year, accounting for about 33 fatalities. Out of these, one-fourth of the fatalities happen inside the ambulance, and the driver is often the deceased in the majority of these crashes.

And on analysis of fatal and non-fatal crashes, the NHTSA found that the most impacted in these fatal crashes are occupants of the other vehicle, next in line are the

passengers in the ambulance, while the remaining are non-occupants and ambulance drivers.

From these data, it's clear that wearing seat belts and restraints can save the lives of EMS providers and that of the patients too. To address these issues, NHTSA has come up with programs such as NASS, CDS, and GES. NASS collects pertinent data to better understand the causes and outcomes of ambulance crashes. While CDS focuses on passenger vehicle crashes, GES looks more at the overall big picture to assess the problem.

Besides the NHTSA programs, there are also specific laws and programs within the state of Connecticut to ensure road safety for EMS providers.



EMS workers state the difficulty to access patients and providing emergency care to them as the key reasons for not wearing seat belts. The need to walk around the cabin for accessing equipment makes it problematic for using restraints either. But regardless of the situation at hand, it is always deemed safe to buckle up self and the patients in the ambulance.

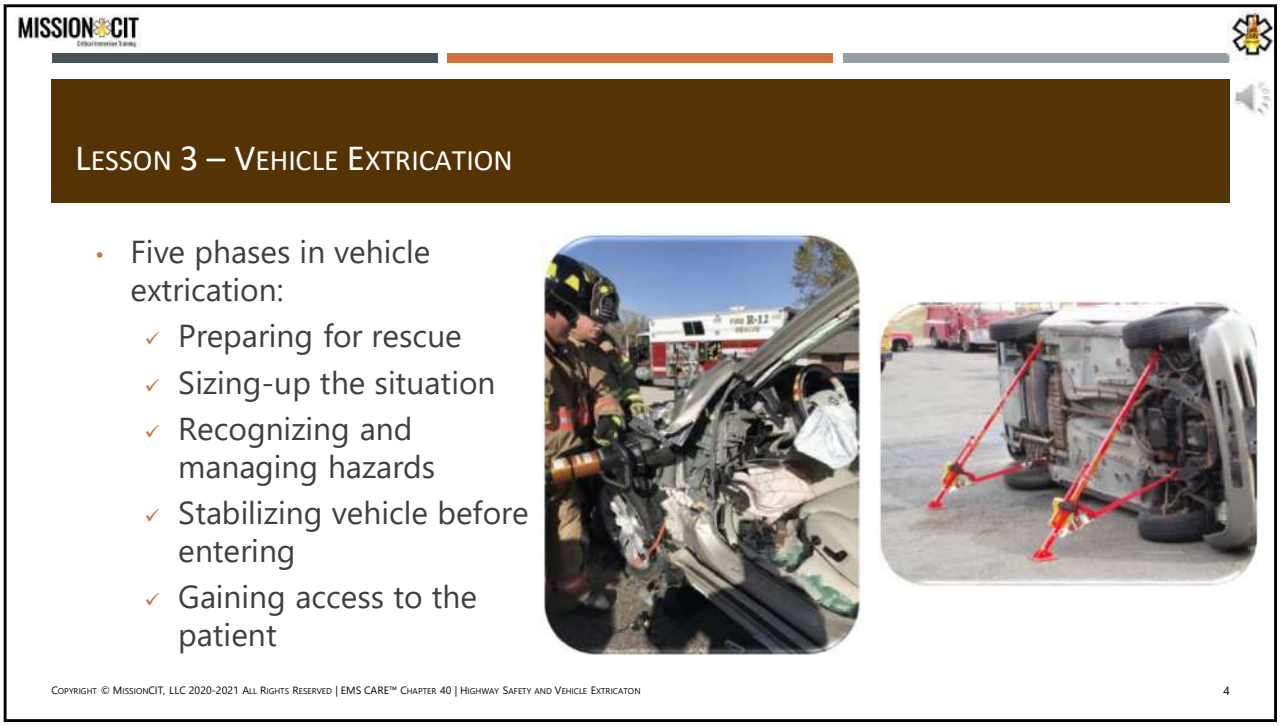
To address these issues, research suggests some changes in the cabin such as removing the CPR seat, using mechanical CPR devices, altering the ambulance design for the ease of accessibility, avoiding side-facing seats, and reinforcing the need to wear restraints and seat belts. Some other specific measures should be followed while transporting pediatric patients as well.

EMTs should make it a routine to follow a specific checklist to make sure the ambulance is in good condition for an emergency call any time during their job. Care should be taken while on the road by being cautious in school zones, parks, residential areas and constantly lookout for pedestrians and the elderly to prevent the chance of an accident.

Using rear-facing ambulance sirens, wearing reflective vests, and using reflective

markings on the ambulance is an absolute must if you are handling night operations.

Next, we will talk about Vehicle Extrication.



Welcome to the chapter review of the third lesson, where we covered the key topic of Vehicle Extrication.

As an EMT, you will not be involved in extrication, but this lesson gives you the required knowledge for your reference. Your duty will solely include assessing and providing medical care, triage and transport of patients, and providing additional assessment and emotional support for patients when needed.

Broadly speaking, there are five phases in vehicle

extrication, and they are:

- Preparing for rescue
- Sizing-up the situation
- Recognizing and managing hazards
- Stabilizing vehicle before entering
- Gaining access to the patient

Next, we will talk specifically about electric vehicle extrication.

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Lesson 4 – Extricating Patients from an Electric Vehicle

- Immobilizing and disabling a car
- Handling fires
- Submerged vehicles





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Moving on to the fourth lesson now. Here, we talked about the ways to differentiate between an electric and a gasoline-powered car. Then we saw about different situations such as immobilizing and disabling a car, handling fires, and submerged vehicles. Though your role stays in the zone of patient treatment, this lesson provided the necessary information solely for your reference.

The next chapter is about Providing Emergency Medical Care.

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LESSON 5 – PROVIDING EMERGENCY MEDICAL CARE

- Kinds of injuries:
  - ✓ Whiplash
  - ✓ Concussions
  - ✓ Chest injuries
  - ✓ Broken bones
  - ✓ Brain injuries etc.
- Types of collisions:
  - ✓ Head-on collision
  - ✓ Dashboard injuries
  - ✓ T-bone collision
  - ✓ Rear-impact collision
- Treatment methods:
  - ✓ PHTLS and EPIC





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In this last lesson, we discussed the different kinds of injuries patients are succumbed to during accidents. Whiplash, concussions, chest injuries, broken bones, brain injuries are to name a few. Being aware of the mechanisms of injury and whether it is an “up and over” path or a “down and under” path can help know the potential injuries faced by the patients. We also saw the common types of collisions that can lead to injuries, such as, head-on collision, dashboard injuries, T-bone collision, and rear-impact collision. Two separate treatment methods PHTLS and EPIC can help when dealing with such situations.

Since pre-hospital system care can be a lifesaver in road accidents, a continuum of care developed suggests that if every link in this continuum is well-executed, then the patient has the highest chances of recovery.

With this, we come to the end of the chapter review. Good luck with the quiz.