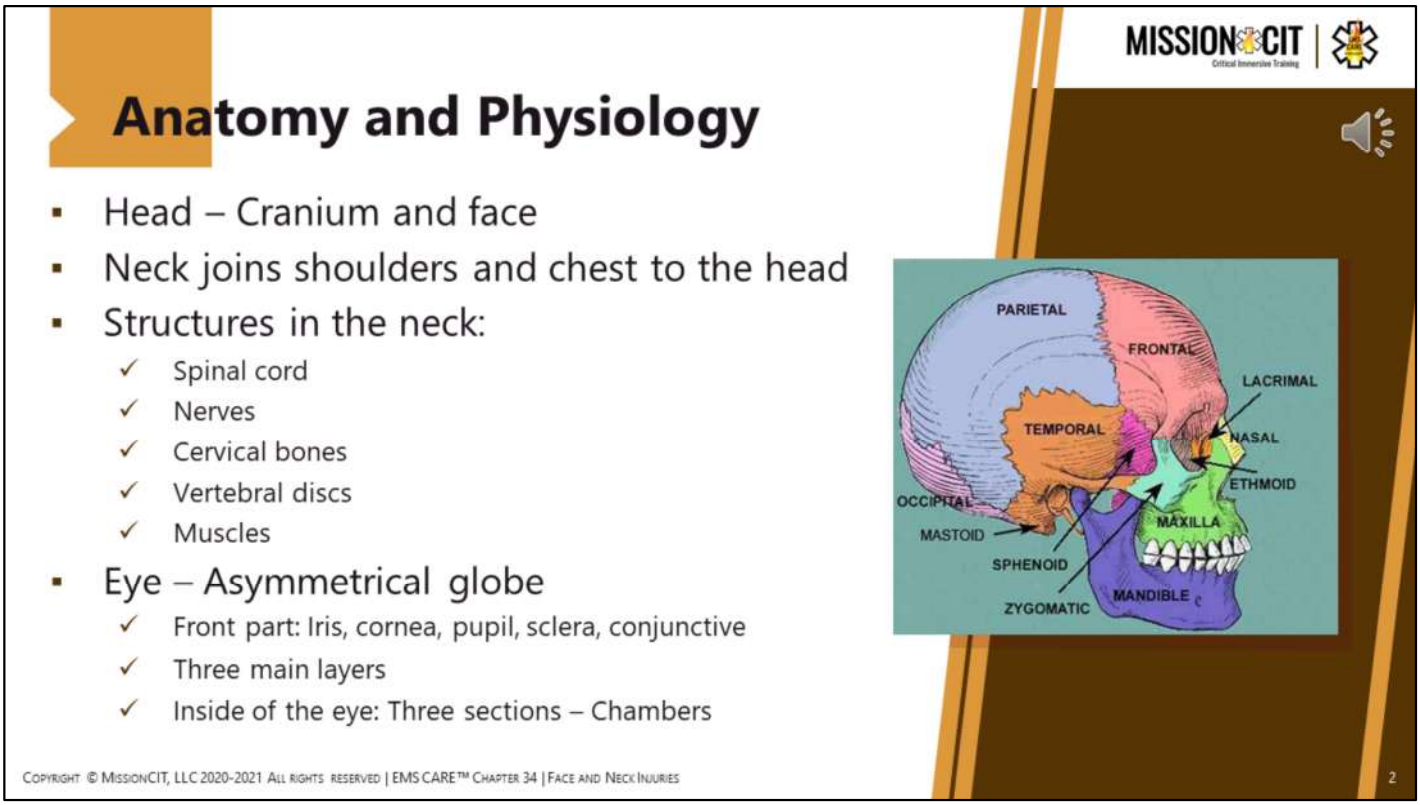
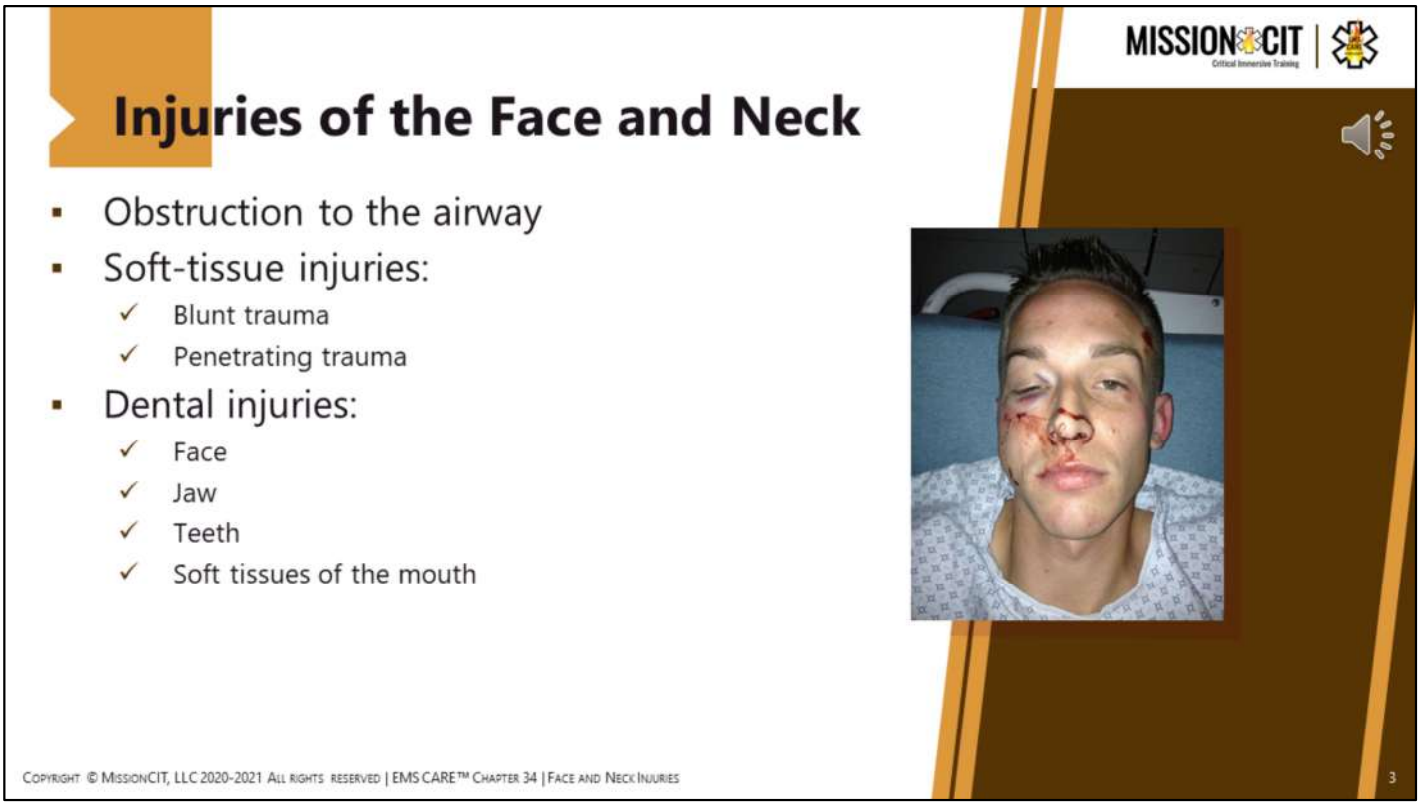


Thanks again Justin. The management of neck and facial injuries can be challenging and sometimes overwhelming. In this lesson, we will review what we learnt so far on this topic.



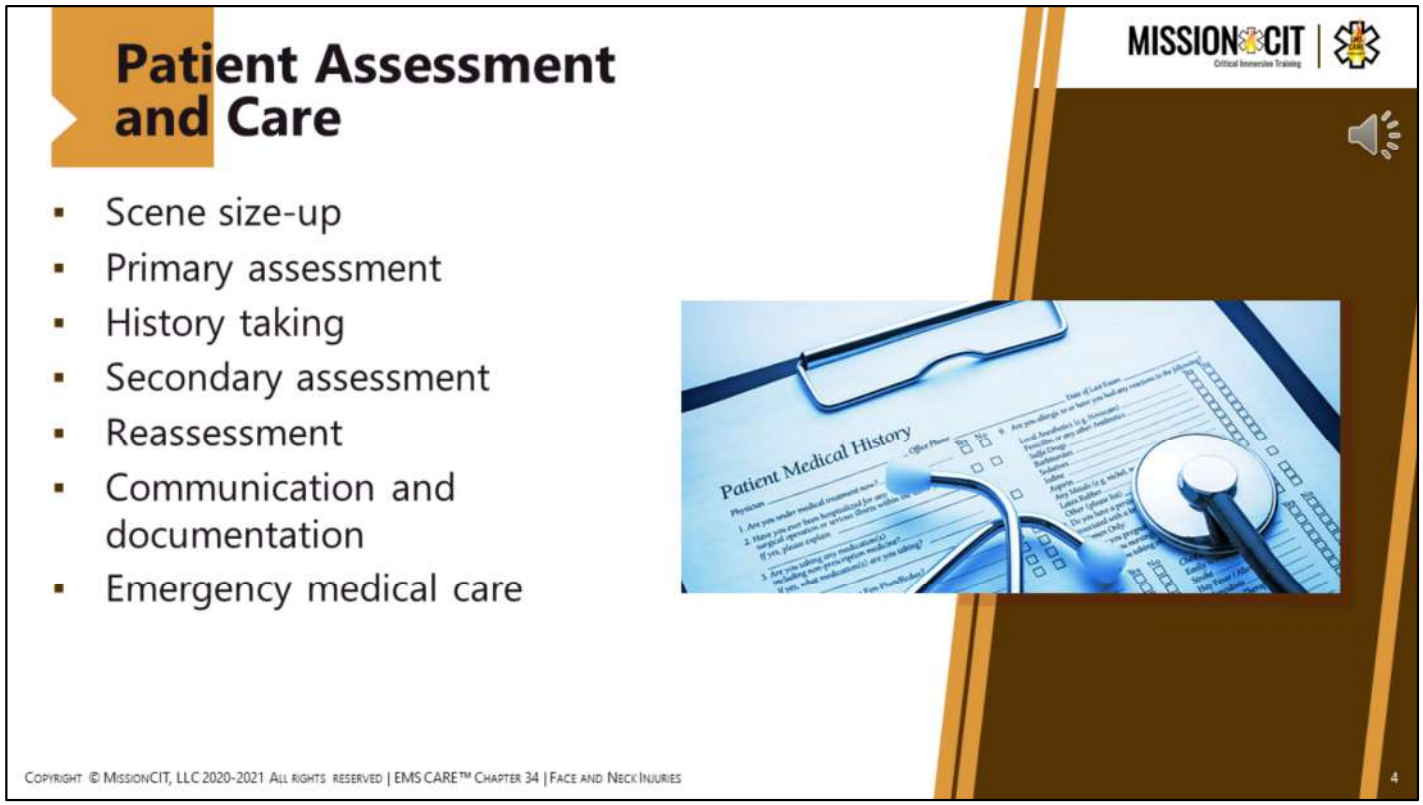
We began with the anatomy and physiology of the head, neck and eye. Here is a brief description:

- The head is divided into the cranium and the face. The cranium is also referred to as the skull. The 14 bones that support the muscles and organs of the face are collectively known as our facial bones.
- The neck joins the shoulders and chest to the head. Some important structures in the neck are: Spinal cord, nerves, cervical bones, vertebral discs, and muscles.
- The eye is a slightly asymmetrical globe. The front part of the eye includes the iris, cornea, pupil, sclera, and conjunctiva. The eye has three main layers that lie flat against each other and form the eyeball. And the inside of the eye is divided into three sections called chambers.



In the next lesson, we mentioned the possible injuries to the face and neck.

- Obstruction to the airway: Facial injuries can lead to partial or complete obstruction to the airway. Noisy respiration, stridor, hoarseness, drooling, inability to swallow or handle oral secretions, sternal retraction, and cyanosis all herald impending death from respiratory obstruction.
- Soft-tissue injuries: These are common in both blunt and penetrating trauma. The wide range of injuries varies from simple superficial skin lacerations to extensive, complex facial trauma with bone and soft-tissue injury.
- Dental injuries: Injuries to the face, jaw, teeth, or the soft tissues of the mouth are common. Traumatic injuries can lead to a number of oral concerns for patients, ranging from fractured and loose teeth to lacerations in the face, and even a broken jawbone.



Moving on, we explored emergency care for patients with face and neck injuries.

- Scene size-up: Ensure scene safety and safe access to the patient. Follow safety precautions, this may include a minimum of gloves and eye protection. Determine the Mechanism of Injury and Nature of Illness.
- Primary assessment: Form a general impression. Ensure the airway is open, clear, and self-maintained. Observe skin color, temperature, and condition; look for life-threatening bleeding and treat accordingly. If the patient has an airway or breathing problem, signs and symptoms of bleeding, or other life threats, manage them immediately and consider rapid transport, performing the secondary assessment en route to the hospital.
- History taking: Investigate the chief complaint by monitoring the patient for changes in mental status.
- Secondary assessment: Perform a systematic full-body examination or a focused examination of the face and/or neck. Obtain baseline vital signs as soon as practical.
- Reassessment: This includes reassessing the primary assessment, vital signs, chief complaint, and any interventions already performed.
- Communication and documentation: Contact medical control/receiving hospital with a radio report. Include a description of the MOI, position the patient was found in, treatments performed and patient response.
- Emergency medical care: Assess ABCs and life threats first. Follow standard precautions. In the absence of life-threatening bleeding, the first step is to open and clear the airway.

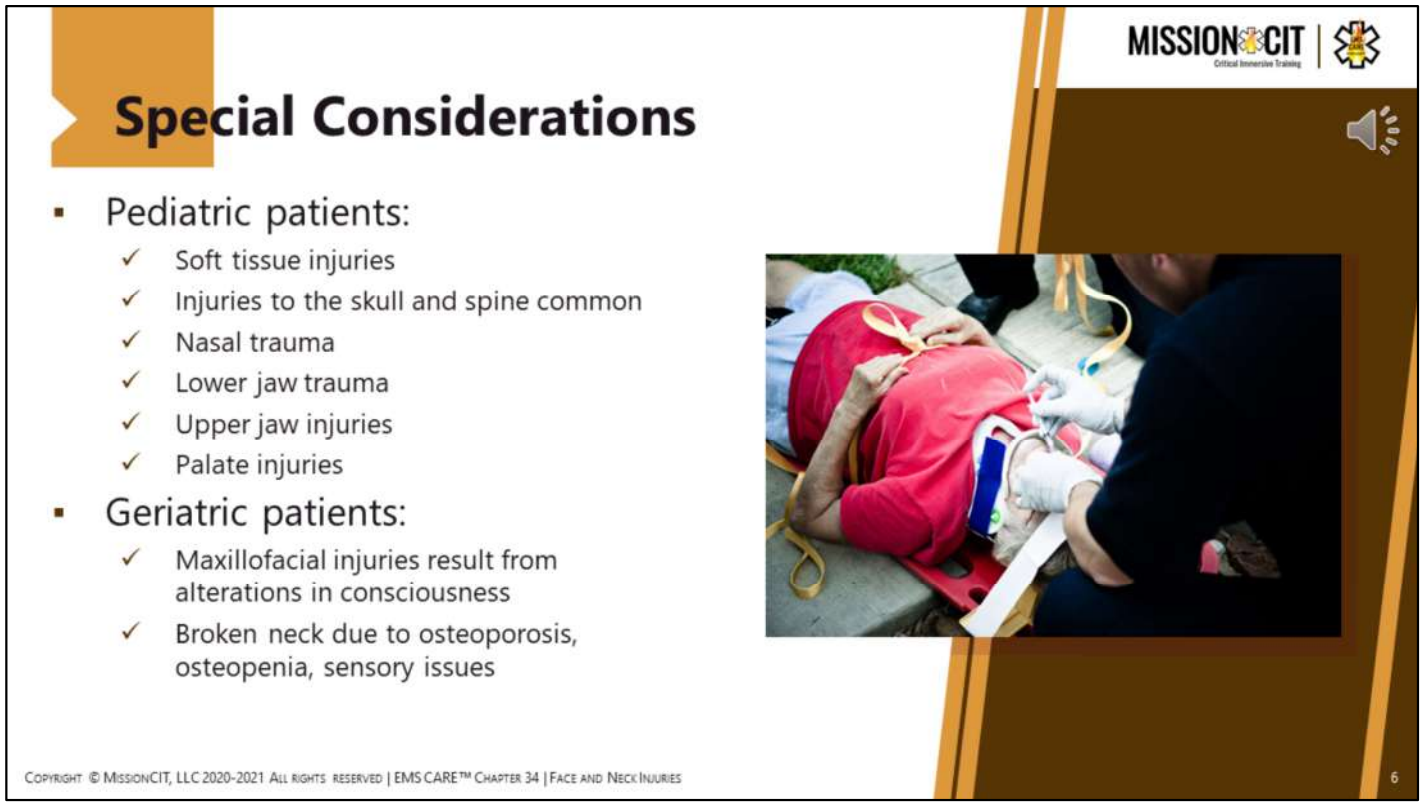


Next, we discussed emergency care for specific injuries to the face and neck. Here is a recap:

- Injuries of the eyes: Eye trauma refers to damage caused by a direct blow to the eye. Injuries may include foreign objects in the eye, burns, lacerations, and blunt trauma to the eye. Burns may include chemical, thermal and light burns.
- Nasal injuries: These injuries can result in damage to the skin, bone, cartilage or any combination. Some possible complications from nasal injuries include septal hematoma, saddle nose deformity, nasal obstruction, and nosebleeds. Other rare complications include cerebrospinal fluid leak and loss of smell.
- Injuries to the ear: Injuries can happen to the outer ear or any part of the middle and inner ear. Severe trauma can cause injuries to all parts of the ear. Outer ear injuries include avulsion, cuts and scratches, and subperichondrial hematoma. The most common injuries to the inside of the ear include fractures, injuries from foreign objects, and a ruptured eardrum.
- Facial injuries: This includes broken bones in the nose, cheekbones, the area around the eyes, and the upper and lower jaw. Here we saw the symptoms related to some of these injuries.
- Dental injuries: Here the injury may be traumatic and the patient's permanent teeth may be lost. Bring along the tooth, placing it in either cold milk or sterile saline while

transporting the patient.

- Injuries of the cheek: If bleeding is uncontrollable, consider removing the impaled object. Provide direct pressure on the inside and outside of the cheek. Bandaging should not occlude the mouth or make it difficult for the patient to breathe.
- Injuries of the neck: Any crushing or penetrating injury can compromise breathing. After an initial evaluation to rule out spinal injury, the neck should be inspected for any latent conditions.
- Laryngeal injuries: Trauma to the larynx can occur by an injury to the front of the neck, as well as a significant hit to the back of the neck. Evaluate for signs of airway obstruction.



The last topic in this chapter was about special conditions you may face while dealing with pediatric and geriatric patients.

Facial and neck trauma occurs frequently in children. Some common problems seen in pediatric patients are nasal trauma, lower jaw trauma, upper jaw injuries, and palate injuries.

Older adults are a high-risk population for traumatic fracture from high- or low-impact mechanisms. Common injuries in older adults include fractures, maxillofacial injuries, and broken neck due to osteoporosis, osteopenia, and those who have sensory issues from medication.

That's it! We've come to the end of the chapter review. With this, you are all set to take the quiz.