Chest Injuries

Musculoskeletal Topographic

Topographic Anatomy

Musculoskeletal Anatomy

Anatomy of the Chest

Anatomy
Assessment of the Chest

- Expose
- Inspect
- Palpate
- Auscultate
- Percussion

What are we assessing for?

- Deformities
- Contusions
- Abrasions
- Penetrations
- Paradoxical Motion
- Burns
- Tenderness
- Lacerations
- Swelling

Mechanisms of Blunt Chest Trauma

- Blast
- Crush
- Deceleration

Mechanisms of Penetrating Chest Trauma

- Low Energy
- High Energy
- Shotgun

Chest Wall Injuries

Rib and Sternal Fractures

Great force is required for sternal fractures.

Ribs 1-3 are well protected by scapular bones and muscles.

Ribs 4-8 are most frequently fractured.

Ribs 10-12 are relatively mobile and fractures less frequently.
Flail Chest

Ventilations with a Flail Chest

Other Chest Wall Injuries
- Chest Wall Contusion
- Scapular Fracture
- First or Second Rib Fx
- Impalement Injuries
- Injuries Below the Nipple Line

Management of Chest Wall Injuries
- Spinal Motion Restriction
- High Flow Oxygen
- Support Airway
- Treat Injuries as Indicated
- Maintain High Suspicion for Occult Injuries
- Rapid Transport to Appropriate Trauma Facility

Pulmonary Injuries

Simple Pneumothorax
Treatment for a Simple Pneumothorax

- Spinal Motion Restriction
- High Flow Oxygen
- Support Airway
- Continuous
- Reassessment for Tension Pneumothorax
- Rapid Transport to Appropriate Trauma Facility

Open Pneumothorax

High Flow Oxygen
Support Airway
Continuous
Reassessment for Tension Pneumothorax
Rapid Transport to Appropriate Trauma Facility

Treatment of an Open Pneumothorax

- Spinal Motion Restriction
- High Flow Oxygen
- Support Airway
- Seal Chest Wound
- Rapid Transport to Appropriate Trauma Facility

Tension Pneumothorax

- Spinal Motion Restriction
- High Flow Oxygen
- Support Airway
- Seal Chest Wound
- Rapid Transport to Appropriate Trauma Facility

Treatment of a Tension Pneumothorax

- Spinal Motion Restriction
- High Flow Oxygen
- Support Airway
- Rapid Transport to Appropriate Trauma Facility

Hemothorax

- Spinal Motion Restriction
- High Flow Oxygen
- Support Airway
- Rapid Transport to Appropriate Trauma Facility

- Shock
Treatment for a Hemothorax
- Spinal Motion Restriction
- High Flow Oxygen
- Support Airway
- Treat for Shock
- Rapid Transport to Appropriate Trauma Facility

Other Pulmonary Injuries
- Pulmonary Contusion
- Tension Pneumo/Hemothorax

Treatment for Other Pulmonary Injuries
- Spinal Motion Restriction
- High Flow Oxygen
- Support Airway
- Treat Injuries as Indicated
- Rapid Transport to Appropriate Trauma Facility

Cardiovascular Injuries

Myocardial Contusion

Treatment for a Myocardial Contusion
- Spinal Motion Restriction
- High Flow Oxygen
- Support Airway
- Rapid Transport to Appropriate Trauma Facility
Pericardial Tamponade

Treatment for Pericardial Tamponade
- Spinal Motion Restriction
- High Flow Oxygen
- Support Airway
- Rapid Transport to Appropriate Trauma Facility

Other Cardiovascular Injuries
- Traumatic Aortic Rupture
- Rupture of Vena Cava
- Myocardial Rupture

Treatment for Other Cardiovascular Injuries
- Spinal Motion Restriction
- High Flow Oxygen
- Support Airway
- Treat Injuries as Indicated
- Rapid Transport to Appropriate Trauma Facility

Other Thoracic Injuries
- Tracheobronchial Injury
- Esophageal Rupture
- Diaphragmatic Herniation
- Traumatic Asphyxia

Treatment for Other Thoracic Injuries
- Spinal Motion Restriction
- High Flow Oxygen
- Support Airway
- Treat Injuries as Indicated
- Rapid Transport to Appropriate Trauma Facility
Questions?