Chest Trauma (111)

Adults	Pediatrics *(13 years and under)*
Public Safety First Aid Procedures: Only	**Public Safety First Aid Procedures: Only**
• Request fire/EMS • Administer oxygen as appropriate • Support ABC's	• Request fire/EMS • Administer oxygen as appropriate • Support ABC's
BLS Procedures: EMT's and Paramedics start here	**BLS Procedures: EMT's and Paramedics start here**
• ABC'S • Spinal Motion restriction as appropriate • Oxygen only if SpO2 <94% or if in respiratory distress • Sucking chest wound? If yes, cover with occlusive dressing or chest seal, stabilize flail segments and consider positive pressure ventilation. Rapid transport to trauma center.	• ABC'S • Spinal Motion restriction as appropriate • Oxygen only if SpO2 <94% or if in respiratory distress • Sucking chest wound? If yes, cover with occlusive dressing or chest seal, stabilize flail segments and consider positive pressure ventilation. Rapid transport to trauma center.
ALS Prior to Base Hospital Contact: Paramedic only	**ALS Prior to Base Hospital Contact: Paramedic only**
• Absent or significantly diminished lung sounds? Thoracic decompression with department approved device. Monitor lung sounds, rapid transport to trauma center. • Establish large bore IV/IO • If poor profusion enter Shock/ Hypoperfusion Protocol (124) • Rapid transport to trauma center	• Absent or significantly diminished lung sounds? Thoracic decompression with department approved device. Monitor lung sounds, rapid transport to trauma center. • Establish large bore IV/IO • If poor profusion enter Shock/ Hypoperfusion Protocol (124) • Rapid transport to trauma center
Base Hospital Contact Required	**Base Hospital Contact Required**
• Neck vein distention? If yes, consider pericardial tamponade, give 250 mL fluid bolus to maintain Systolic B/P >80 mmHg	• Neck vein distention? If yes, consider pericardial tamponade give 5 mL/kg fluid bolus to maintain Systolic B/P. ○ 1-10 years old >70 mmHg ○ 10 + years old >80 mmHg

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Special Considerations

1. Signs and symptoms of pneumothorax include dyspnea, diminished lung sounds on the affected side, and increased resonance to percussion. Additionally, tracheal deviation away from the affected side, hypotension, and neck vein distention may be seen in tension pneumothorax.

2. If pericardial tamponade is present without pneumothorax, neck vein distention may be present, but lung sounds will be equal. Base contact is required for administration of fluid challenge. Fluid challenge may be required to maintain a systolic blood pressure of >80mm/Hg.

3. Apply occlusive dressings Vaseline gauze or commercially available chest seal to sucking chest wounds. Monitor patient for development of pneumothorax. If lung sounds diminish, remove dressing to allow air to escape and reassess lung sounds to determine need for thoracic decompression.

4. On scene times should be **ten minutes** or less for trauma patients that are accessible and do not require prolonged extrication. Situations that delay on scene times must be documented in the patient care record.

5. The correct placement for the county approved device for the purpose of thoracic decompression is **2nd intercostal space, mid-clavicular line for pediatric patients** or **4th intercostal space, mid-axillary line for adult patients**. The approved thoracic decompression device for adult is a 10-gauge IV needle with catheter at least 3.25 inches in length. Standard length 2-inch needle should be used for pediatric patients.

6. Fluid challenge in trauma patients should be avoided due to increased mortality.