



# Bend Fire & Rescue EMS Performance Standards

## Chest Decompression – 3.2.6

### Performance Objective

- To improve cardiac output and allow for effective oxygenation / ventilation through the release of intrathoracic pressure caused by tension pneumothorax.

### Equipment Needed

- PPE
- Antiseptic Wipe
- Cook Kit OR IV Needle 10-14g w/ Catheter
- Stethoscope
- Pulse Oximeter
- Waveform Capnography

### Procedure

- Take or verbalize appropriate body substance isolation precautions.
  - Examples: gloves, goggles, mask, gown, etc.
- Evaluate airway / breathing and identify inadequate ventilations / signs of hypoxia.
  - Pale / cyanotic.
  - Inadequate chest rise / fall.
  - Altered level of consciousness.
  - Increased work of breathing or apnea.
- Recognize signs and symptoms of a tension pneumothorax and associated obstructive shock.
  - Hypotension.
  - Progressively worsening respiratory distress or apnea.
  - Decreased or absent breath sounds on the affected side(s).
- Prepare equipment needed for chest decompression while ensuring positive pressure ventilation (PPV) provides for optimal oxygenation / ventilation.
- Expose the entire chest.
- Identify correct anatomical landmark.
  - Second intercostal space, mid-clavicular line, affected side(s).
- Use aseptic technique to prepare site.
- Insert and advance needle over the superior aspect of the 3<sup>rd</sup> rib until a release of air is achieved.
- Remove needle, leaving catheter in place.
- Attach one-way valve to catheter and secure catheter to patient.
- Reassess patient condition following procedure and continue respiratory support as indicated.
- Maintain effective oxygenation / ventilation and auscultate breath sounds frequently.
- Continuously reassess patient vitals and respiratory effort.
  - Oxygen saturation.
  - Occlusion of catheter.
  - Waveform capnography.
  - Reoccurrence of tension pneumothorax.