

**Step 1**: Locate the 4th intercostal space in the midaxillary line by palpating adjacent ribs



**Step 2**: Make a 3 cm skin incision using an 11 blade scalpel



**Step 3**: Bluntly dissect through subcutaneous fat over rib using curved hemostat



**Step 4**: Create a track through subcutaneous fat by spreading the curved hemostat



**Step 5:** Puncture the pleura with the blunt tip of the curved hemostat



**Step 6**: Spread the hemostat to widen the pleural opening



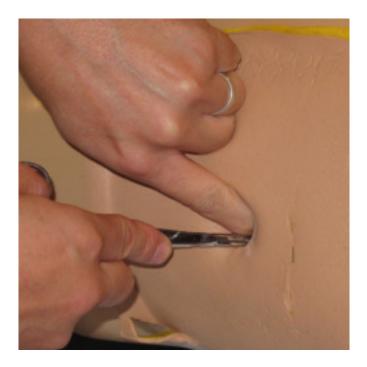
**Step 7**: Withdraw the hemostat slightly so that the tips are at the pleural opening when spreading



Step 8: Load the chest tube onto a hemostat



**Step 9:** Insert finger and sweep 360 degrees to disrupt pleural loculations or adhesions



**Step 10**: Insert chest tube through pleural opening using finger as a guide

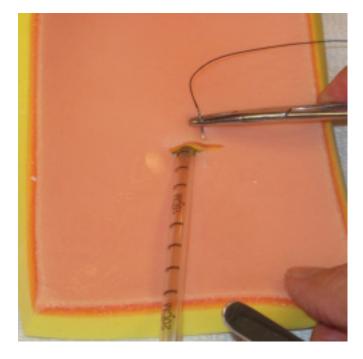


**Step 11**: Unclamp hemostat and remove while gently advancing chest tube into pleural space



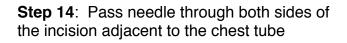
**Step 12**: Insert chest tube to premeasured distance such that the last fenestration is inside the pleural cavity





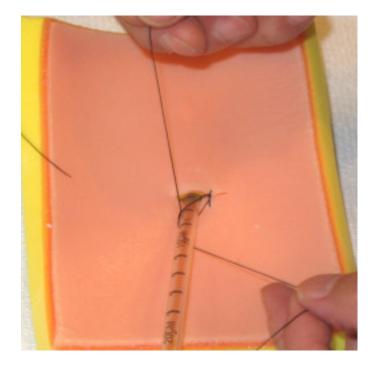
suture

Step 13: Secure chest tube to skin with

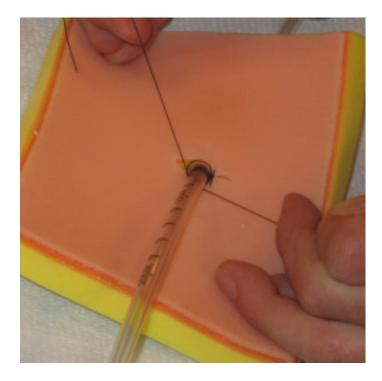




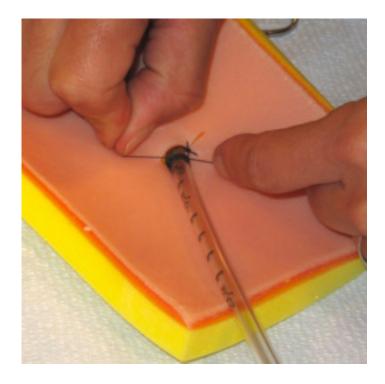
Step 15: Tie interrupted suture adjacent to close skin adjacent to the chest tube



Step 16: Leave both ends of suture long and wrap around chest tube several times in both directions



**Step 17**: Cinch suture down to base of chest tube, pull tight enough to slightly indent tube



**Step 18**: Tie using a surgeons knot to avoid slippage



Step 19: Cut ends of suture