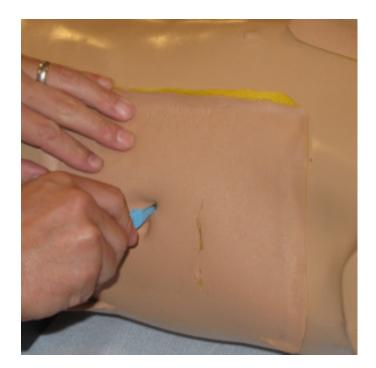


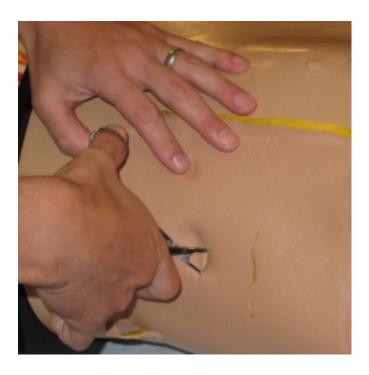
Step 1: Locate the 4th intercostal space in the midaxillary line by palpating adjacent ribs



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



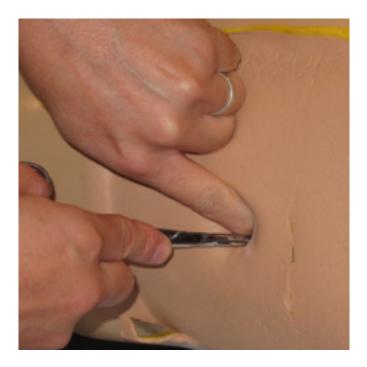
Step 7: Withdraw the hemostat slightly so that the tips are at the pleural opening when spreading



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

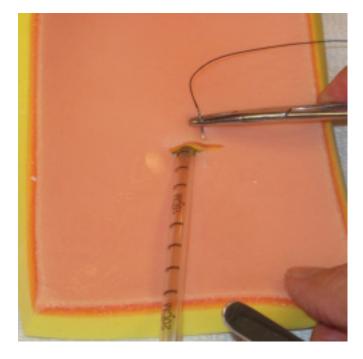


Step 11: Unclamp hemostat and remove while gently advancing chest tube into pleural space



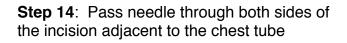
Step 12: Insert chest tube to premeasured distance such that the last fenestration is inside the pleural cavity





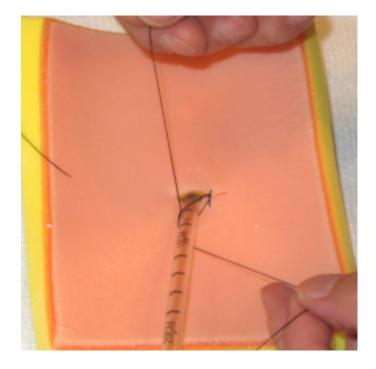
suture

Step 13: Secure chest tube to skin with

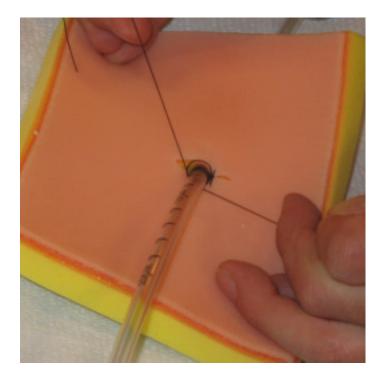




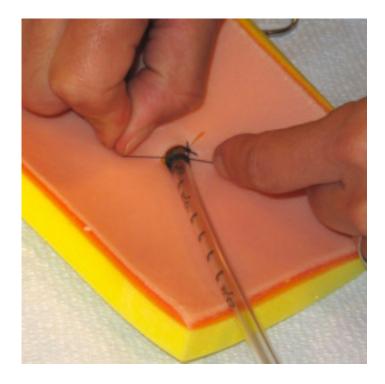
Step 15: Tie interrupted suture adjacent to close skin adjacent to the chest tube



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