

INJURIES YOU NEED TO FIND IN THE PRIMARY SURVEY

Tension pneumothorax

- Most common cause: positive pressure ventilation in an intubated patient.
- Everyone knows the signs, but lets go though them anyway:
 - FALLING CARDIAC OUTPUT
 - DILATED NECK VEINS
 - TRACHEAL DEVIATION
 - TACHYPNOEA
 - HYPER-RESONANT HEMITHORAX ON PERCUSSION
- This is a clinical diagnosis. **DON'T WAIT FOR X-RAYS**
- **LARGE NEEDLE** in the 2nd intercostal space, midclavicular line.
- That buys you time; you convert a tension pneumothorax into a simple pneumothorax.
- The idea is to finish your primary survey and get a chest drain in.

Open pneumothorax

- This is a large obvious defect in the chest wall.
- If the hole is bigger than two thirds of the tracheal diameter, air will preferentially use the wound to enter the chest. This is not ideal.
- **FLAP DRESSING**: close the wound with a sterile dressing, with one free end which will act s a valve
- **CHEST DRAIN** is the definitive management. Place it far from the wound

Flail chest and pulmonary contusion

- Once you have exposed your patient, large flail segments will become obvious
- **TWO PROBLEMS**:
 - Abnormal chest wall movement – which alone contributes little to hypoxia
 - Underlying lung injury – pulmonary contusion – contributes to hypoxia
 - Also, pain of the broken ribs is counterproductive to respiration.
- There may be paradoxical movement of the chest wall
- **OR**, there may be **RESTRICTED** movement, because of “splinting” i.e. the patient tries not to inhale too much
- **Management: OXYGENATION and ANALGESIA**
 - **ANALGESIA** better be good; epidural, intercostal block, PCA

Massive Hemothorax

- Until you get xrays, you may not know about it;
- In a supine patient, xrays may not be obviously suggestive of hemothorax
- You might have creps in the bases, you might not
- **HOWEVER**, the main indication of hemothorax is a continuing and puzzling failure to respond to fluid challenges; and then you find absent breath sounds....

YOU NEED A CHEST DRAIN. If over 1500ml comes out, you need a thoracotomy.

If your patient fails to respond or only transiently responds to fluids, you need a thoracotomy

Medial penetrating injuries alert you to the possibility of this: the greater vessels may have been injured.

Cardiac Tamponade