Chest

Year 1	Year 2	Year 3
Do 1. Inspection: • With patient seated observe posture, respiratory rate, depth and effort and look for presence/absence of distress such as grunting , nasal flaring and pursed lip breathing. • Observe shape of chest, (spine, ribs and sternum) and symmetry of chest movement, paying attention to asynchronous contraction of the diaphragm and intercostals (paradoxical respiration). • Observe abnormalities of the chest surface.(pigmentation, collateral circulation. Skin lesions, etc). • 2. Palpation: • Confirm trachea midline position • Place hands on posterior chest wall to confirm equal expansion. Ask the patient to exhale completely, closing in with both hands and juxtaposed thumbs, then take a deep breath. • Assess vocal tactile fremitus by placing hands sequentially over various areas of the chest and ask patient to say, "99" or 1-2-2 or Eeeee. Check if asymmetric breath sounds are present. • Explore supraclavicular and axillary fossae for enlarged lymph nodes. 3. Percussion: • Percuss anteriorly and posteriorly at each level from apices to bases comparing sides. The pleximeter finger should be firmly in the intercostal space, with the other fingers providing	Do • Assess for diaphragmatic excursion if atelectasis, diaphragmatic paralysis is suspected • If consolidation is suspected clinically assess for vocal resonance in addition to tactile vocal fremitus by asking the patient to say "E" and auscultate over suspected consolidation. "E" will sound like "A". Know • Patients with respiratory distress may have accessory muscle use, nasal flaring, intercostals retractions or paradoxical abdominal movements. This is detected by inspection. • Tracheal deviations occur with tumors, pleural effusions or tension pneumothorax. • **Tactile fremitus** is vibration felt by the clinician's hand when the patient speaks. • Asymmetric areas of increased tactile fremitus (vibration) occurs with consolidation • Asymmetric areas of decreased tactile fremitus occurs with pleural effusion, pneumothorax or large pulmonary blebs. • Dullness to percussion occurs when normal lung is filled with or displaced by fluid or solid tissue (eg effusion, pneumonia, tumor, pleural thickening) • Hyperresonance to percussion occurs when normal lung is replaced by air (eg. pneumothorax or emphysema) • A barrel shaped chest may be seen in Chronic Obstructive Pulmonary Disease	Know • **Bronchial (or tubular) breath sounds** are abnormal, high pitched sounds heard over consolidated lung connected to a patent bronchus. Consolidated lung increases transmission of airway sounds. • **Adventitial breath sounds** are abnormal -**Crackles** (historically "rales"): Fine- like fine hairs being rubbed, occurs when partially collapsed airways open during inspiration. Collapse may be caused by scarring, pus (pneumonia), blood (alveolar hemorrhage), fluid (pulmonary edema). -**Wheeze**s: high pitched, musical sounds caused by airflow through tightly constricted airways (eg. asthma, tumor obstruction) -**Rhonchi**: low pitched "snoring" sounds caused by partial airway obstruction from mucus or foreign body, or endobronchial tumors. -**Pleural rubs**: loud, creaky "sandpaper" sounds caused by inflamed visceral and parietal pleura rubbing together. -**Stridor**: Whistling or shrieking sounds caused by upper airway partial obstruction. Inspiratory stridor is caused by upper airway obstruction and expiratory stridor is caused by lower airway obstruction (eg. aspiration).

support. The percussing finger should strike the distal interphalangeal joint. • Percuss spine and costovertebral angle for tenderness 4. Auscultation • Auscultate with diaphragm firmly on bare skin listening to chest for a full inhalation and exhalation,comparing right and left at each level (posteriorly in 6 areas, laterally in mid-axillary line from apex to base, and anteriorly at apex and base) <u>Know</u> • Normal lung is resonant to percussion • **Vesicular breath sounds** are normal		