RESPIRATORY ASSESSMENT CONSISTS OF FOUR COMPONENTS

1. Inspection
2. Palpation
3. Percussion
4. Auscultation

INSPECTION
Inspection involves using your eyes and ears to assess a variety of things regarding your patient.

General Appearance
Primary assessment
General impression
• Position
• Color
• Mental status
• Ability to speak
• Respiratory effort

SKIN COLOR
Around mouth/lips
Nailbeds
Chest Wall Abnormalities

LISTEN & WATCH FOR:
Noisy Breathing
Pursed Lip Breathing
Coughing

Nail Clubbing?

RESPIRATORY RATE & PATTERN
Compare to Normal Breathing
Rate
Pattern
(Effort work of breathing)
RESPIRATORY RATE

Increased rate may be due to:

- Hypoxia
- Pain
- Fear/Apprehension

Rates over 30 can’t be maintained for long and usually are an indication of impending respiratory failure.

RESPIRATORY RATE

Decreased rate may be due to:

- Narcotic use
- Decreased core temp
- Incomplete reversal of anesthesia

RESPIRATORY PATTERN

Normal I:E Ratio is 1: 1.5-2

Longer Expiratory Phase in COPD
ASSESS WORK OF BREATHING (WOB)

Signs of increased WOB include:

- Use of Accessory Muscles
- Posture while breathing
- Patient complaint of dyspnea
  - "I'm short of breath."
  - "Having a hard time breathing."
  - "A little tough today."

PALPATION
The laying on of hands
Note position of trachea

PERCUSSION
TYPES OF PERCUSSION NOTES

Flat (over bone)
Dull (muscle & soft tissue)
Resonant (normal lung)
Hyper-resonant (Emphysema)
Tympanic (free air)

AUSCULTATION

During auscultation:

Patient should be upright taking deep breaths through the mouth
Eliminate outside noise if Possible
Vesicular sounds
- Normal over lung periphery
- Medium pitch & loudness
- Inspiration louder & longer

Trachial or Bronchial sounds
- Normal over trachea & sternum
- High-pitched, loud & harsh
-Expiration louder & longer with a short pause between

Bronchovesicular sounds
- Normal over upper lobes
- Medium pitch & loudness
- Inspiration & expiration about the same

ABNORMAL BREATH SOUNDS
- Bronchial or bronchovesicular sounds where vesicular is expected

ABNORMAL BREATH SOUNDS
- Rhonchi or Wheezes
- Rales or Crackles
- Absent Breath Sounds
- Rubs

ABNORMAL BREATH SOUNDS
RHONCHI OR WHEEZES
- Continuous, high or low-pitched sounds usually heard on exhalation
- Caused by narrowed airways
- Sounds depend on the nature of the narrowing
ABNORMAL BREATH SOUNDS

RALES OR CRACKLES
- Discontinuous, intermittent sounds usually heard on inspiration
- Caused by opening of collapsed small airways or by air passing through fluid-filled airways

ABNORMAL BREATH SOUNDS

ABSENT BREATH SOUNDS
- Indicates lack of air entry into lung segments
- Caused by consolidation of lung tissue due to atelectasis, infection, fluid, etc.

ABNORMAL BREATH SOUNDS

RUBS
- "Creaking leather" sounds usually heard at end of inspiration & beginning of expiration
- Caused by friction between the pleural surfaces

Special thanks to Ed Litwin, RRT