

Introduction to Evidence Based Medicine: Examination of the Respiratory System

- **Advice from McGee** (McGee S. Evidence-Based Physical Diagnosis. Phil: WB Saunders Co, 2001):
 - **Inspection**
 - the normal respiratory rate (RR) is ~20 breaths/min (range: 16-25). It is often mistakenly reported in textbooks as being much lower.
 - Tachypnea = RR of 25 or greater, Bradypnea = RR of 8 or lower
 - ~80% of patients with clubbing have an underlying respiratory disorder. ~10% have other underlying disorders such as liver cirrhosis or congenital cyanotic heart disease. ~10% of clubbing is hereditary/idiopathic and is considered benign
 - the value of barrel chest in diagnosing chronic obstructive lung disease is controversial with conflicting results
 - **Palpation**
 - contrary to traditional teaching, there is no 'proper phrase' that must be used for tactile fremitus. "Boy-o-boy", "ninety-nine", or any other sound is sufficient.
 - only **asymmetric** tactile fremitus is an abnormal finding. Therefore, it is most important to compare the lungs to each other.
 - **Percussion**
 - correlation between actual and percussed diaphragmatic excursion is poor
 - finding asymmetric dullness on percussion of the lung fields is helpful but is an infrequent finding. It argues for pneumonia in patients with a fever & cough, aids in the detection of underlying abnormalities, and is very good in the detecting of large pleural effusions. However, percussion is quite poor at detecting consolidations in patients without fever and cough.
 - **Auscultation**

- bronchial breath sounds, crackles, and egophony all argue for pneumonia in patients with fever and a cough
- keep in mind that crackles are also evidence of other disorders including pulmonary fibrosis, congestive heart failure, and chronic obstructive lung disease
- detecting wheezes argues for the diagnosis of chronic obstructive lung disease. When wheezes appear during methacholine challenge testing, asthma is likely.
- stridor indicates that the airway diameter is <5mm