

Introduction to Evidence Based Medicine: Precordial Examination

- **Advice from McGee** (McGee S. Evidence-Based Physical Diagnosis. Phil: WB Saunders Co, 2001):
 - **Palpation of the apex beat**
 - in the supine position, the apex beat is only palpable in 25-40% of adults
 - in the left lateral decubitus position, the apex beat is only palpable in ~50% of adults
 - recall the description of the apex beat in terms of 'SALID' –Size, Amplitude, Location, Impulse, and Duration
 - **S** -if the apical impulse is >4cm in the left lateral decubitus position, it is a strong indication of a dilated heart
 - **A** -Patients with mitral stenosis have decreased left ventricular filling. Therefore these patients should have either a normal or reduced amplitude for their apex beat. Thus, if a patient with a mitral stenosis murmur is also found to have a hyperkinetic apex beat, this is a strong indication that another cardiac abnormality must be present.
 - **L** -if the apex beat is palpated lateral to the mid-clavicular line it is strongly suggestive of an enlarged heart, decreased ejection fraction, and decreased left ventricular end-diastolic volume
 - **I** -in certain conditions, S4 can be palpated as a double outward ('biphasic') impulse
 - **D** -in patients without murmurs, a sustained apical impulse provides evidence of cardiomyopathy
 - **Auscultation technique**
 - the bell is used to detect low frequency sounds. It should be applied with enough pressure to create an air seal and exclude ambient noise. Greater amounts of pressure make lower frequency sounds more difficult to hear. If a sound is audible with the bell using light pressure but

disappears with firmer pressure, the sound is of low frequency.

- some clinicians recommend an auscultation pattern of base-to-apex and others from apex-to-base. Neither method is diagnostically superior.