GOALS:  1) Appreciate the steps involved in learning and practicing physical diagnosis
  2) Understand basic techniques of inspection, palpation, percussion, auscultation
  3) Be introduced to the use of instruments

Introductory Remarks

Inspection
Use your senses! Challenge yourself: How much can you learn about the patient
from inspection alone?

Examples:
- Gait as patient enters room- Gout, lower extremity injury, back pain
- Difficulty removing clothing- Shoulder bursitis, upper extremity weakness
- Poor eye contact- Depression, fear, cultural issues
- Odor- Ketosis of diabetes; Alcohol

Most frequent mistake by students in my office:
Forgetting to expose what you need to inspect

Palpation- using hands and fingers to gather information through sense of touch
Remember symbolic, therapeutic nature of “laying on of hands”
Basic rules:
- Warm hands, short fingernails
- Light palpation (1cm deep) before deep palpation (4cm deep)
- Tender spots last
- Gloves are used for protection if:
  Possible contact with body fluids or broken skin
  Certain kinds of “isolation precautions”, usually in-hospital

Use:
- Palmar surface of fingers: Touch- texture, size, consistency
- Ulnar surface of hands: Vibration
- Dorsal surface of hands: Temperature

Percussion- striking an object to produce vibration and sound waves
Qualities of sound depend on density of tissue:
- Tympany- Gastric bubble
- Resonance- Healthy lung
- Dullness- Liver
- Flatness- Thigh

Types of percussion:
- Direct- strike finger or hand against body (e.g. over kidneys)
- Indirect- finger (usually the 3rd) of one hand is the hammer, finger
  (again, usually the 3rd) of the other is the striking surface
**Auscultation**- listening for sounds produced by the body

Done last after inspection, palpation, and percussion (except first on abdomen)

Basic rules:

- Have a quiet environment
- Place the stethoscope on skin, not clothing
- “Isolate sounds”- you can’t hear everything at once!
  - Like listening to one instrument in an orchestra
  - For example, during heart exam, listen to S1 only, then S2 only, …
- Note intensity, pitch, duration, and quality of sounds

**Instruments (including brief discussion on instrument purchase)**

**Stethoscope**

- Diaphragm for high pitched sounds
- Bell with *gentle* pressure for low pitched sounds
  - Firm pressure causes skin to function like a diaphragm

**Single-head or “Cardiology III” models:**

- May be somewhat more difficult to learn with
- Light pressure for low-pitched sounds (like the bell)
- Firm pressure for high-pitched sounds (like the diaphragm)

**Diagnostic Kit**- purchase is necessary to allow you to practice and learn

- Options include hard and soft cases, full and portable-sized

**Ophthalmoscope**

- On-off switch also allows you to dim the light source
- Lenses- allow you to focus
- Aperture selector- changes shape/size of the light source

**Otoscope**

- Removable magnifying lens
- Pneumatic attachment

**Transilluminator for sinuses, scrotal masses, other uses-optional**

**Others**

- Blood pressure cuff
- Tuning forks (128hz for testing vibration, 256 or 512 for hearing)
- Reflex hammer
- Medical Bag- in general, seldom used