General signs and symptoms

Pulmonary Embolism

- Shortness of breath
- Tachypnea
- Hemoptysis
- Pleurisy
- Cyanosis

Asthma

- Acute cough
- Retraction of interspaces

Pneumonia: Viral and bacterial

- Viral presents with rhinorrhea, fatigue and a non-productive cough
- Acute cough
- Decreased chest expansion
- Fever (bacterial)
- Productive cough (bacterial)
- Chest pain
- Dullness on percussion

COPD: Chronic Obstructive Pulmonary Disease. Ex: asthma, emphysema and chronic bronchitis

- Retraction
- Decreased AP diameter
- Decreased tactile fremitus
- Hyperresonance obliterates cardiac dullness
- Liver is displaced downward lowering right diaphragmatic excursion
- Patient leans forward sitting down with pursing the lips in expiration
- Associated with aging, smoking

In the PE inspect for asymmetry, pursing of the lips, Ex: Emphysema, use of the accessory muscles of respiration
Pneumothorax

- Tracheal deviation
- Decreased tactile fremitus
- In a young person, sudden SOB suggests Spontaneous Pneumothorax
- Hyperresonance
- If large, tympany may be heard

Heart failure

- Dry cough
- Exacerbated by changes in position
- Gradual increase in the SOB

Breath Sounds

- Normal
  - Vesicular: longer in inspiration
  - Bronchovesicular: Same length throughout inspiration and expiration
  - Bronchial: Louder in pitch with a short silence between inspiration and expiration. There’s also longer expiratory sounds
- Adventitious sounds= Abnormal
  - Crackles: Indicates pneumonia, fibrosis, CHF in an early stage, bronchitis or bronchiectasis
  - Wheezes: Airways constriction as in Asthma, Bronchitis, COPD
  - Rhonchi: hypersecretion in large airways

Terminology of respiratory rates

- Tachypnea= >20 b/m
- Bradypnea= <12 b/m
- Hypopnea: Shallow breathing secondary to pleuritic pain.
- Hyperventilation or hyperpnea: Self induced or it can be controlled while tachypnea cannot be controlled or self induced. Psychogenic
- Orthopnea: Difficulty breathing when lying flat
- Platypnea: Difficulty breathing when standing up. Ex: Pericarditis
Cardiovascular

Heart Sounds

- S3 arises from the rapid deceleration of blood against the heart wall and is indicative of decreased ventricular compliance
- S4 demarks atrial contraction
- Split S2 is due to closure of the aortic valve before pulmonic valve. This is a normal finding during inspiration but fixed splitting of S2 during inspiration and expiration is suggestive of Atrial Septal Defect.

Bruit

- Murmur-like sound from vascular rather than cardiac origin
- Increases with age
- High risk of ischemic stroke or heart dz

Breast

- A self-breast exam is best 5-7 days after menses because estrogen levels are lowest.

Methods

- Lawn mowing
- Wedge
- Circular

Palpable masses: Palpable masses in women over 50 are cancer until proven otherwise

- Fibroadenomas:
  - Common in 15-25 y/o females
  - Fine, round, mobile and nontender
- Cysts:
  - Soft to firm, round, mobile, tender
- Fibrocystic changes
  - Nodular and ropelike
- Cancer
  - Irregular, stellate, firm, hard to distinguish from surrounding tissue
Breast exam

- Self exam: begins in their 20s, 5-7 days after period
- Clinical breast exam: every 3 years when reaching 20s-40s
- Mammography: after 40-50

Breast exam after mastectomy

- Unusual nodularity around scar and axilla
- Discoloration and signs of inflammation. Ex: lymphedema from poor lymph drainage
- Special attention to outer upper quadrant and axilla

Abdominal quadrants
<table>
<thead>
<tr>
<th>Right Upper (RUQ)</th>
<th>Left Upper (LUQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small bowel</td>
<td>Small bowel</td>
</tr>
<tr>
<td>Liver and Gallbladder</td>
<td>Left lobe of liver</td>
</tr>
<tr>
<td>Pylorus</td>
<td>Spleen</td>
</tr>
<tr>
<td>Duodenum</td>
<td>Stomach</td>
</tr>
<tr>
<td>Head of Pancreas</td>
<td>Body of Pancreas</td>
</tr>
<tr>
<td>Hepatic flexure of colon</td>
<td>Spleenic flexure of colon</td>
</tr>
<tr>
<td>Portions of ascending and</td>
<td>Portions of transverse and</td>
</tr>
<tr>
<td>transverse colon</td>
<td>descending colon</td>
</tr>
<tr>
<td>Right adrenal gland</td>
<td>Left adrenal gland</td>
</tr>
<tr>
<td>Portion of right kidney</td>
<td>Portion of left kidney</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Right Lower (RLQ)</th>
<th>Left Lower (LLQ)</th>
</tr>
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<tbody>
<tr>
<td>Small bowel</td>
<td>Small bowel</td>
</tr>
<tr>
<td>Cecum and appendix</td>
<td>Sigmoid colon</td>
</tr>
<tr>
<td>Portion of ascending colon</td>
<td>Portion of descending colon</td>
</tr>
<tr>
<td>Lower pole of right kidney</td>
<td>Lower pole of left kidney</td>
</tr>
<tr>
<td>Right ureter</td>
<td>Left ureter</td>
</tr>
</tbody>
</table>
- **Retroperitoneal structures: mnemonic (SAD PUCKERS)**
  - Suprarenal glands
  - Aorta and IVC
  - Duodenal second and third segments
  - Pancreatic body and head “but not the tail”
  - Ureters
  - Colon ascending and descending
  - Kidneys
  - Esophagus
  - Rectum
  - Spleen

**Inspection of the abdomen**

- Ask the patient to lay supine and bend the knees to relax the abdominal muscles
- Place face at the level of the abdominal surface to observe any irregularities.

**Bowel sounds**

- Excessive bowel sounds or borborigmus are a result of hyperperistalsis. This can be caused by an obstruction or an inflammatory process
- Absence of bowel sounds suggests paralytic ileus. Post surgery you must wait 5 minutes in each quadrant listening for bowel sounds before discharging the patient.
- Other causes of altered bowel sounds include diarrhea and peritonitis
Common causes of abdominal pain:

- Gastritis: It gives u epigastric pain
- Appendicitis
- Cholecystitis
- Pancreatitis

Diverticulitis is secondary to diverticulosis.

- IBD: It presents as an intermittent constipation in a young patient
- IBS
- Perforated ulcer
- Dissecting aneurysm
- Intestinal obstruction
- Salpingitis
- PID
- Ruptured of ovarian cyst
- Splenic rupture
- Peritonitis
- Volvulus
- Ectopic pregnancy
- Miscarriage
- Cystitis
- Psychogenic

Abdominal pain and Pregnancy:

- In the 2\textsuperscript{nd} and 3\textsuperscript{rd} trimesters pregnant can present with heartburn due to an increase of hydrochloric acid and to the compression of the organs in the abdominal cavity.
- Gallstones
- Urinary stasis and URI
- Constipation and excess flatulence
- Hemorrhoids due to increased venous pressure

Urinary tract

- CVA: Costo-Vertebral Angle: Important to check the kidneys for tenderness and kidney enlargement
Effects of the Endocrine system on the GI tract

Causes of constipation:

- Hypercalcemia from hyperparathyroidism also causes constipation
- Hypothyroidism
- DM

Causes of splenomegaly

- Portal HTN
- Hematologic malignancies
- HIV
- Splenic infarct or hematoma