

General Diagnosis 'Board Review' Notes

Head and Neck

Hyperthyroidism

- Thyroid enlargement (goiter)
- Exophthalmos
- Tremors, Tachycardia
- Increased appetite, Weight loss
- Lid lag
- Amenorrhea
- Nervousness
- Heat intolerance

Hypothyroidism (Myxedema)

- Weakness, Fatigue
- Weight gain
- Non-pitting pseudoedema, Periorbital edema
- Decreased body temperature
- Dry skin
- Loss of outer portion of eyebrows
- Depression
- Heavy menstrual bleeding
- Bilaterally decreased Achilles DTR

Addison's disease (adrenal insufficiency)

- Fatigue, Generalized muscle weakness
- Anorexia, Weight loss
- Hypotension
- Abdominal pain
- Skin hyperpigmentation

Cushing's syndrome

- Central truncal obesity with thin limbs
- Buffalo hump
- Moon facies
- Capillary fragility, Purple abdominal striae
- Increased body hair (hypertrichosis)
- Chronic steroid use is the most common cause

Parkinson's disease

- Resting tremor, diminishes with use (pill rolling of thumb and fingers)
- Shuffling festination gait
- Expressionless mask like facial appearance
- Decreased eye blinking
- Stooped flexion posture
- Cog wheel rigidity

Bell's Palsy

- Unilateral facial paralysis of sudden onset (affects entire half of face, upper and lower)

Stroke

- Causes weakness and numbness of the face (Bells Palsy does not cause numbness)
- Bilateral innervation of upper muscles retains ability to wrinkle forehead & close eyes
- Paralysis of the arm and leg on the same side

Tension headache (muscle contraction headache)

- Most common cause of headache at any age, Affects both sexes equally
- Usually bilateral
- May be generalized or localized to the back of the head and upper neck
- May be described as a constrictive band around head
- Stressful life, anxiety, tension, and depression may be present
- May last for hours to days
- No pre-headache prodrome, No associated symptoms

Migraine headache

- Unilateral, may begin around the eye or temple
- Throbbing or pounding quality
- Often begins in childhood or early adolescence
- May be familial, More common in females
- Pre-headache aura
- Nausea, vomiting
- Transient vision loss which returns to normal, Zig zag flashes of light at periphery of vision
- Hypersensitivity to light (photophobia), Seeks dark room for relief

Cluster headache

- Tearing of eye, nasal congestion, and possibly ptosis and miosis
- Unilateral eye pain that may be described as sharp and stabbing, or 'boring'
- Spring or Fall seasonal predilection
- Occurs in clusters for several months, then suddenly disappears
- More common in males (may be a smoker)
- No familial tendency
- No visual prodrome, or nausea and vomiting

Meningitis

- Headache
- Neck pain and stiffness
- Exposure to infectious organism, Fever
- Cervical flexion painful and restricted (Brudzinski's sign)
- Extension of the leg from the 90-90 position is painful and restricted (Kernig's sign)

Eyes

Dacrocystitis

- Tender red swelling beneath the medial canthus of the eye

Blepharitis

- Inflammation of the eyelids, usually caused by a staphylococcal infection
- Accumulation of greasy flakes or scales around the base of the eyelashes

Hordeolum (stye)

- Small red infection of a hair follicle at the eyelid margin

Chalazion

- Appears similar to a sty, however the swelling is not at the lid margin
- Contents of the cyst are sebaceous, rather than infectious

Ectropion and Entropion

- Ectropion = turning out of the lower eyelid
- Entropion = the eyelid is turned in

Ptosis

- Droopy upper eyelid that covers all or part of the pupil
- May occur with myasthenia gravis, Horner's syndrome, or CN III damage

Xanthelasma

- Fatty, yellowish lesions on the upper or lower eyelids
- Most commonly seen with aging

Conjunctivitis

- 'Pink eye' - conjunctival redness around periphery of eyeball
- Eye pain and tearing of the eye

Trachoma

- Chronic conjunctivitis caused by Chlamydia infection
- 15% of blindness worldwide is caused by trachoma

Scleritis

- Severe boring eye pain
- Redness of sclera
- Hx of autoimmune inflammatory disorder

Iritis

- Eye pain with photophobia
- Red halo around the iris
- Decreased vision
- May be associated with autoimmune arthritides, such as ankylosing spondylitis

Pinguecula and Pterygium

- Yellowish thickening on nasal side of the bulbar conjunctiva
- Pterygium more serious when the growth grows across the cornea, may interfere with vision

Hyphema

- Blood in the anterior chamber of the eye

Hypopyon

- Pus in the anterior chamber of the eye

Subconjunctival hemorrhage

- Bright red area of localized hemorrhage beneath the conjunctival membranes
- Does not cause eye pain or interfere with vision

Herpes Zoster Ophthalmicus

- Shingles vesicles on the V1 branch of the trigeminal nerve

Keratoconjunctivitis Sicca

- 'Dry eye syndrome' often associated with Sjögren's syndrome

Arcus senilis

- Grayish white deposit of lipoid material around the limbus of the iris
- 'Normal variant' of the elderly

Anisocoria

- Unequal pupil size

Miosis

- Pupils fixed and constricted (< 2 mm)

Mydriasis

- Pupils fixed and dilated (> 6 mm)

Oculomotor (CN III) damage

- Dilated pupil that fails to respond to light or accommodation
- Ptosis of the upper eyelid and lateral deviation of the eye may be present

Argyll Robertson pupil

- Small irregular shaped pupils (not PERRLA)
- React to near vision (accommodation), but fail to constrict to light
- Classically associated with untreated neurosyphilis

Adie's tonic pupil

- Unilateral dilated pupil that reacts sluggishly to both light and accommodation

Horner's syndrome

- Ptosis, miosis, and anhidrosis of one eye
- May be caused by a Pancoast lung cancer

Cataract

- Clouding of the lens will cause gradual painless loss of vision
- Ophthalmoscopic exam reveals opacity
- Usually seen with the elderly, Juvenile diabetes is another cause

Papilledema (Choked disk)

- Bilateral swelling of the optic nerve heads due to increased intracranial pressure

Papillitis (Optic Neuritis)

- Unilateral inflammation of the optic nerve head
- May be caused by temporal arteritis or MS

Optic Atrophy

- Pale white disc due to death of optic nerve tissue

Primary open angle glaucoma

- Most common type of glaucoma, accounting for approximately 70-90% of all glaucoma
- Usually bilateral and symptoms develop gradually

Acute angle-closure glaucoma

- Outflow of aqueous humor is blocked by a narrow angle where the iris meets the cornea
- Acute onset of red eye around the iris
- Unilateral eye pain
- Large pupils, or pupil may be fixed between dilated and constricted
- Headache, Dizziness, Decreased vision
- Eyeball palpates hard and firm compared to normal eye

Hypertensive Retinopathy

- 'Copper wire' deformity (widened light reflex)
- A-V nicking
- Flame and splinter hemorrhages
- 'Cotton wool' soft exudates (local ischemic infarcts)

Diabetic Retinopathy

- Microaneurysms
- Dot & blot hemorrhages
- Soft exudates
- Hard exudates (lipid remains of vascular leakage)

Amaurosis fugax

- Temporary painless loss of vision in one eye

Age-related macular degeneration

- Loss of central vision, retention of peripheral vision
- Affects elderly
- Fundoscopy exam may reveal yellow spots (drusen) over the macula

Retinal detachment

- Sudden onset of visual flashes of light or new 'floaters'
- Partial loss of vision in one eye as if a gray cloud appeared over a part of the visual field

Retinitis Pigmentosa

- Hereditary disorder
- Areas of dark pigmentation in a bone spicule pattern against the red retinal background
- Vision is lost first at the periphery resulting in 'tunnel vision'

Emmetropia

- Normal vision, the cornea and lens focus light correctly on the retina

Myopia

- Nearsighted, globe is elongated in the AP dimension resulting in light being focused anterior to the retina

Hyperopia

- Farsighted, globe is flattened in the AP dimension resulting in light being focused posterior to the retina

Astigmatism

- The cornea and lens are not symmetric (Light entering the eye focuses at several different points within the eye)

Drusen

- Small yellow dots at the macula associated with macular degeneration

Myelinated nerve fibers

- Fine feathery patches that may obscure the disc margin and retinal vessels
- Normal variant - Usually unilateral and are present at birth

Ears, Nose, and Throat

Conductive hearing loss

- Weber test - sound is heard louder in (lateralizes toward) the bad ear
- Rinné negative - AC < BC or AC = BC
- Causes: Impacted cerumen, Perforated TM, Otitis media, Otosclerosis

Sensorineural hearing loss

- Weber test - sound is heard louder in (lateralizes toward) the good ear
- Rinné positive - AC > BC
- Causes: Congenital, Presbycusis, Occupational, Ototoxic drugs

Presbycusis

High frequency sensorineural hearing loss that occurs as we age

Tophi

Small, white yellow, non-tender nodules located at the helix or antihelix

Contains uric acid caused by gout

External ear obstruction

Unilateral loss of hearing

Visual exam reveals cerumen in auditory canal

Immediately improved upon removal of obstruction

Perforated tympanic membrane

Ear pain

Unilateral loss of hearing

Otoscopic exam reveals perforation of TM (and blood if the perforation is recent)

Tympanosclerosis

Dense white patches on TM from healed damage to drum

Otitis externa

Infection and pain of the outer ear, usually caused by Pseudomonas or Staphylococcus

Often associated with swimming, especially if the water is contaminated

Tugging on the pinna will be painful

Conduction hearing loss if canal is obstructed

Acute mastoiditis

Pain upon pressure on the mastoid process

Bacterial infection of the mastoid air cells

May be fever and elevated WBC count

Acute otitis media

Most common in children

Bacterial infection of the middle ear, usually preceded by an upper respiratory infection

Tympanic membrane is inflamed with an 'angry red' appearance

Bulging TM with altered cone of light reflex

Conduction hearing loss is usually unilateral

Secretory Otitis media with effusion

May be seen in adults with a Hx of allergies

Amber tympanic membrane with possible air fluid level visible behind TM

Fluid is not infectious, usually non-febrile

'Glue ear' - popping or crackling sound with swallowing or yawning

Conduction hearing loss is usually unilateral

Cholesteatoma

Malignant overgrowth of epidermal tissue through perforated TM

White or yellow-gray cheesy infection with a purulent foul smelling discharge

Otosclerosis

Ankylosis of the malleus, incus, or stapes

Unilateral conduction hearing loss

Meniere's disease

Accumulation of endolymph fluid

Causes vertigo, sensory hearing loss, tinnitus, and possibly nausea and vomiting

Episodic attacks may last for minutes to hours

Herpes Zoster Oticus (Ramsay Hunt's Syndrome)

Shingles of the 8th CN ganglia

Epistaxis

Nosebleed

Sinusitis

Pain with pressure or percussion over maxillary and frontal sinuses

Caused by allergies or an upper respiratory infection

Transillumination may show fluid instead of air in the sinus

Angular Stomatitis

Red sores at the corner of the mouth

May be caused by B vitamin deficiency or poorly fitting dentures

Apthous Stomatitis (Canker Sores)

Small (< 1 cm), white circular lesion, with red border on tongue, gum, cheek, or lip

Pharyngitis

Can lead to rheumatic fever and acute glomerulonephritis if caused by Group A beta-hemolytic streptococci (GABHS)

Peritonsillar Abscess

Also known as Quinsy

Acute Necrotizing Ulcerative Gingivitis (Trench Mouth)

A noncontagious infection associated with a fusiform bacillus and spirochete

Gingival hyperplasia

Can be seen as a side effect of long term use of anti-seizure medicine (Dilantin)

Lead line

A thin black line at the gum margin, which is a sign of lead poisoning

Oral candidiasis (Thrush)

Manifests thick white fungal patches are easily scraped off

Leukoplakia

Similar in appearance to candidiasis, but leukoplakia patches do not easily scrape off

The lesions are pre-cancerous and the patient should be referred for follow-up

Hairy Tongue

The filiform tongue papillae are elongated and have a brown or black discoloration

Thought to be related to poor oral hygiene

Atrophic Glossitis

A smooth glossy appearance to the tongue suggests a deficiency of certain B vitamins

Fissured Tongue (Scrotal Tongue)

Deep furrows on the tongue surface - a normal variant, or possibly due to dehydration

Geographic Tongue

Discrete areas of increased redness that are visible where the papillae are missing

The cause of this condition, also known as migratory glossitis, is unknown

Lungs and Respiratory

Viral upper respiratory infection (The common cold)

Usually caused by either rhinovirus or coronavirus

About 10-15% of colds are caused by flu viruses (longer lasting and more severe)

Sneezing, watery eyes, sore throat, general malaise

Cervical lymph nodes may be enlarged

If a fever is present, it is low grade (with flu, a fever usually is present)

Acute Bronchitis

Acute inflammation of the tracheobronchial tree

Usually caused by a prior upper respiratory infection or cigarette smoking

Causes a burning pain in the upper chest

Hacking cough that is usually dry and nonproductive

Pneumonia

Lower respiratory infection that frequently follows a cold or the flu

Consolidation = accumulation of bacteria, blood cells, fluid, and cellular debris in the alveoli

The patient will appear ill, and may manifest fever and chills

Increased respiratory rate with labored breathing

Possible cyanosis

Possible blood tinged sputum

Inspection: Asymmetric chest expansion

Palpation: Increased tactile fremitus

Percussion: Dull over fluid accumulation

Auscultation: inspiratory rales, with bronchophony over areas having consolidation

Chest x-ray: increased density from consolidation and an 'air bronchogram' sign

Tuberculosis

Chronic, recurrent lung infection caused by *Mycobacterium tuberculosis*
Individuals with a mild case of TB may remark that they are "not feeling well"
As the condition progresses, a cough that "does not go away" may develop
Eventually, the cough becomes productive of yellow or green phlegm
May develop a fever and night sweats
Auscultation: Rales in the upper posterior chest may be heard
A chest x-ray is usually diagnostic

Pleurisy (Pleural effusion)

Excess fluid collects in the intrapleural space
Caused by conditions such as infection, lung cancer, congestive heart failure
Pleuritic chest pain, described as a severe 'stabbing' sensation, worse with a deep breath
Decreased tactile fremitus
The area of effusion will percuss dull to flat
Breath sounds are decreased to absent over the fluid accumulation
A pleural friction rub while not frequent, is characteristic when heard
A chest x-ray may show blunting of the costophrenic angles

Pneumothorax

Free air between the visceral and parietal pleura
Chest expansion is decreased on the affected side
Tactile fremitus is decreased or absent
When the air expansion is large the trachea will deviate away from involved side
Over the areas of air expansion, the chest is hyperresonant to percussion
Breath sounds are decreased or absent over the intrapleural air expansion
A chest x-ray will show signs of radiolucency adjacent to areas of increased lung density
Pneumothorax is a medical emergency, requiring immediate referral

Asthma

Hypersensitivity reaction triggered by allergens such as dust, animal dander, or pollen
Individual appears anxious and experiences wheezing, labored breathing, and 'air hunger' as a result of difficulty with exhalation
Chest will feel 'tight' and the individual may cough
High pitched expiratory wheeze as air exits past narrowed bronchial airways
Possible intercostal retraction
Possible cyanosis

COPD (Chronic obstructive pulmonary disease)

Includes emphysema (COPD type A) and chronic bronchitis (COPD type B)
Usually the result of a lifetime of cigarette smoking
Emphysema - 'pink puffer'
Dyspnea with prolonged expiration
May assume the tripod position and unconsciously perform 'purse lip' breathing
Individual may be thin, without cyanosis or edema
Barrel shape chest, due to chronic over inflation of the lungs
X-ray - increased radiolucency of the lung parenchyma, and a flat diaphragm
Lung examination: decreased tactile fremitus, hyperresonant percussion, and decreased breath sounds on auscultation
Chronic bronchitis - 'blue bloater' (cyanotic with digital clubbing of fingernails, pitting edema of legs)

Bronchiectasis

Chronic cough with purulent and foul smelling sputum
Hypoxia may result in clubbing of the fingernails
Bronchiectasis is common in children with cystic fibrosis

Atelectasis

Collapsed lung usually the result of bronchial obstruction by a mucous plug
When the collapse is large, symptoms of tachypnea, dyspnea, and chest pain manifest
Cyanosis and a fever may be present

Pulmonary embolism

- Blood clot in a pulmonary artery causing obstruction of blood supply to lung parenchyma
- Recent surgery, fracture, and immobilization may cause a pre-embolic condition
- With a large lung embolism, the pain may be severe and 'knife-like', with hemoptysis
- Pulmonary embolism does **not** show up on plain chest x-ray

Lung cancer

- Leading cause of cancer death in the US for both men and women
- 90% of lung cancer is the direct result of cigarette smoking
- Hacking 'smoker's cough', chest pain, dyspnea, hemoptysis, and weight loss
- With severe hypoxia, digital clubbing of the fingernails may be seen
- A superior sulcus (Pancoast) tumor may manifest symptoms of Horner's syndrome
- Supraclavicular lymph nodes may be enlarged

Costochondritis

- Pain at the 2nd to 5th costosternal articulations
- Pain increased with a deep breath (cardiac pain is not made worse with deep breathing)

Herpes zoster

- Pain and a band of vesicles in the dermatomal nerve band between two ribs
- Hypersensitivity pain
- Allodynia - pain from a normally nonpainful stimulus, such as the shirt rubbing the skin

Cardiovascular

Angina pectoris

- Brief episode of substernal chest pressure or discomfort, usually brought on by exercise
- Unstable angina - the attacks may become more frequent, severe, and longer lasting, or occur while at rest

Myocardial infarction

- Crushing substernal chest pain, which may radiate to the neck or either shoulder
- Levin's sign - Clenched fist held against the chest when describing the pain
- May be pale or sweating, and experiencing nausea and shortness of breath
- Pulse may be weak and thready
- Blood pressure is high if there is also hypertension, or low if approaching heart failure
- ECG may show an inverted T wave, ST elevation, and a deep Q wave
- Cardiac enzymes are elevated (Sequence: Troponin & CPK; AST; LDH)

Congestive heart failure

- May appear pale, with gray or cyanotic skin
- May be weak and fatigued and appear anxious due to their 'air hunger'
- Uncomfortable laying flat and need to sleep propped up in bed (orthopnea)
- Lung congestion may awaken at night with paroxysmal nocturnal dyspnea (PND)
- Frothy pink productive cough
- Swollen abdomen due to ascitic fluid accumulation
- Jugular venous distention (JVD) may be visible
- Ankles usually show dependent, pitting edema
- Increased heart rate with a possible S3 gallop
- Crackles and wheezing will be heard on lung auscultation
- Liver and spleen may be palpably enlarged from venous congestion

Hypertrophic Cardiomyopathy

- Congenital condition where the heart myocardium thickens inwardly
- Early warning symptoms include shortness of breath, angina, and dizziness or fainting

Mitral Valve Prolapse

- Most common heart valve defect which causes a mid-systolic click and possibly a mitral regurgitation murmur

Pericarditis

- Inflammation of the pericardial sac from infection or heart attack (Dressler's syndrome)
- Fluid accumulation may cause pericardial tamponade, a life threatening condition
- Pressure may cause pulsus paradoxus - decreased blood pressure during inspiration
- Pain is worse with motion and laying down, and better with sitting up and leaning forward
- A pericardial friction rub is heard about 60-70% of the time

Aortic dissection

- A tear within the blood vessel which causes atrocious chest pain as if being 'torn in half'
- Intensity of the pain is maximal at the initial onset
- Hypertension is probable, and about two thirds of patients have peripheral pulse deficits
- With abdominal aneurysm, may be an abdominal bruit and a pulsating abdominal mass

Breast

Paget's Intraductal Carcinoma

- Dry, red, scaling of tissue surrounding the nipple; may appear similar to eczema
- Unlike eczema, intraductal carcinoma is usually unilateral

Fibroadenoma

- Fibroadenoma is the most common benign tumor of the breast
- Usually occurs during the early years of menstruation
- Palpates as a unilateral nontender "small slippery marble"

Fibrocystic breast disease

- Also known as benign breast disease
- Bilateral breast swelling and tenderness prior to menstrual flow
- Most common in 30-50 year age range

Breast cancer

- Most common after age 50
- May cause dimpling or nipple retraction as the cancer grows into Cooper's ligaments
- 'Orange peel' texture is due to blocked lymphatic drainage

Abdomen and Gastrointestinal

Gastroesophageal reflux (GERD)

- Retrosternal heartburn, a bitter or sour taste in the mouth from reflux of stomach contents
- May experience dysphagia and laryngitis if the acid reflux is more than minimal
- Eating too large a meal or lying down after meals may trigger esophageal reflux
- May cause a night time cough while recumbent

Gastritis

- Causes dyspepsia, epigastric pain, nausea, and upper abdominal bloating
- Constant epigastric pain

Peptic ulcer disease

- Includes duodenal ulcers (most common) and gastric ulcers
- Causes 'burning' or 'gnawing' epigastric pain
- Pain worse with meals suggests gastric ulcer
- Duodenal ulcer pain initially relieved with eating, recurs two to three hours after the meal
- Vomiting after eating gives temporary relief of epigastric pain
- May have coffee grounds emesis
- H. pylori ulcers most common on lesser curvature
- NSAID ulcers most common on greater curvature

Mechanical bowel obstruction

- Predominant symptom is severe abdominal pain, similar to baby 'colic'
- Obstipation (total lack of bowel movements) results with complete bowel obstruction
- Initially loud borborygmi, caused by hyperactive bowel motility
- In later stages of complete obstruction, decreased or absent bowel sounds
- KUB x-ray will disclose marked gaseous distention proximal to the obstruction

Adynamic ileus

- A temporary arrest of intestinal peristalsis, possibly from a peritoneal infection
- In contrast to complete mechanical obstruction, the ability to pass gas is retained

Appendicitis

- Manifests initially as dull periumbilical pain
- As infection progresses, the pain becomes sharp and localizes in the RLQ
- Fever, nausea, vomiting, and anorexia are common
- Abdominal pain precedes nausea and vomiting
- With peritonitis the abdomen may have involuntary rigidity
- Rebound tenderness is likely at McBurney's point
- Rovsing's sign: Rebound at the LLQ recreates the RLQ pain
- WBC values are typically elevated above 10,000, with a shift to the left

Pancreatitis

- Most commonly caused by chronic alcohol abuse
- Severe upper abdominal pain that may radiate to the chest, back, or left shoulder
- Fever, nausea, vomiting
- Cullen's sign: periumbilical ecchymosis
- Grey Turner's sign: flank ecchymosis
- Ecchymosis skin discolorations caused by an accumulation of blood within the fascial planes
- Serum amylase and lipase are elevated
- Possible diabetes mellitus (pancreatic endocrine function)

Gastroenteritis

- Inflammation of the lining of the stomach and intestines
- Gastroenteritis ('stomach flu'), is often caused by food poisoning (salmonella, E coli, etc.)
- Also caused by viruses, such as adenovirus or the Norwalk virus
- Anorexia, nausea, vomiting, diarrhea, and abdominal pain
- Nausea and vomiting precedes abdominal pain
- Fever suggests a more significant bacterial infection
- Inspection: visible peristalsis may be seen
- Auscultation: hyperactive bowel sounds

Malabsorption syndrome

- Caused by a defect of digestion and absorption of food in the small intestine
- Celiac sprue: a gluten allergy that causes inflammation of the small intestine
- Tropical sprue: thought to be caused by a viral, bacterial, or parasitic infection
- Gas, bloating, crampy lower abdominal pain, and diarrhea
- With malnutrition, there may be weight loss and anemia
- Pale, foul smelling stool from fat that is not digested and absorbed

Crohn's Disease

- Patchy inflammation creates 'cobblestone' full thickness lesions
- While it may occur in any part of the gastrointestinal tract, usually in the terminal ileum
- Abdominal pain and chronic, nonbloody diarrhea
- Associated symptoms: iritis, photophobia, symmetric arthritis, and perianal lesions

Ulcerative Colitis

- Continuous surface inflammation of the large intestine
- Abdominal pain and frequent diarrhea as with Crohn's disease
- However, with ulcerative colitis the diarrhea is usually bloody
- May be associated rectal conditions such as fissures, abscess, or hemorrhoids
- Pain may temporarily be decreased with a BM

Irritable bowel syndrome

- Also known as spastic colitis, causes crampy lower abdominal pain
- Diarrhea that alternates with periods of constipation
- Affects females more than males, most common in the late teens and early 20's
- Usually triggered by stressful life situations, such as taking exams
- Abdominal pain may be relieved with defecation
- Stool is not bloody but may reveal the presence of mucous

Diverticulitis

- Very common condition after age 60
- Severe LLQ abdominal pain, nausea, vomiting, fever
- May be involuntary muscular rigidity and a very painful palpable LLQ mass

Hepatitis

Inflammation of the liver, caused by a virus, toxins, or chronic alcohol abuse
Symptoms similar to flu: nausea, vomiting, fever, loss of appetite, abdominal pain
Liver palpates tender and enlarged, but the edge remains soft and smooth
Jaundice of the skin, mucous membranes and sclera

Cirrhosis

Usually caused by chronic alcohol abuse causing liver parenchymal cell damage
Anorexia, malaise, weight loss, abdominal discomfort, and generalized weakness
Cirrhotic liver palpates enlarged, and palpates with a smooth, firm, blunt edge
Decreased albumin production may lead to swelling in the legs and abdomen (ascites)
Jaundice develops as bile products are not processed by the liver
Portal hypertension may cause enlargement of abdominal blood vessels (caput medusa)

Liver cancer

Previous hepatitis or cirrhosis is a risk factor for primary liver cancer
In the US, metastatic liver cancer is 20 times more common than primary liver cancer
Vague and nonspecific symptoms, such as fatigue, malaise, unexplained fever
As condition progresses, weight loss and abdominal pain
Cancerous liver palpates as enlarged, with a hard irregular border
Possible palpable supraclavicular lymph nodes

Cholecystitis

Cholecystitis is most common cause of acute abdominal pain in patients over 50
Severe RUQ pain, nausea, vomiting, and fever
Pain may radiate to the tip of the right scapula
May be precipitated by eating a large, fatty meal several hours earlier
Positive Murphy's inspiratory arrest sign
Chronic condition: may have had previous episodes, with periods of relief

Colorectal carcinoma

Third leading cause of cancer in either sex; 90% occurs after age 50
Abdominal pain, change in bowel habits, blood in stool, anemia, weight loss
A stool guaiac test which shows occult blood is a screen for this cancer

Genitourinary

Urinary tract infection

Female:Male = 50:1 incidence
Dysuria, frequency, urgency, nocturia, and low back pain
Burning with passage of urine
Male may notice a discolored discharge on the underwear
Yellow discharge - gonorrhea infection; Nongonococcal infection - clear to white discharge
Abdominal palpation may disclose suprapubic tenderness
Possible new sexual contact

Urinary calculi

Many stones are 'silent', passing without complication
May have a history of previous stone formation
A large stone lodged in the ureter causes extreme pain
Costovertebral flank pain usually radiates to the groin region
No relief of pain with change of position
Nausea, vomiting, chills, and fever occur
Urinalysis: hematuria, bacteriuria if infection is present

Nephritic Syndrome (Acute Glomerulonephritis)

More common in children than adults
Usually develops after a recent streptococcal infection
May experience headaches (from hypertension)
Costovertebral angle tenderness
Face swells (periorbital edema)
Proteinuria and hematuria, RBC casts in urine
Possible elevated Antistreptolysin O titer
Possible azotemia (increased serum creatinine and BUN)

Chronic Nephritic-Proteinuric Syndrome (Chronic Glomerulonephritis)

Condition of adults, usually unrelated to previous acute glomerulonephritis episodes

Most common causes: atherosclerosis, diabetes, and hypertension

May be asymptomatic, discovered when proteinuria or hematuria, is found on routine UA

When the condition progresses to kidney failure: anorexia, fatigue, anemia, hypertension

CBC may show anemia; chem screen will show azotemia (increased BUN and creatinine)

Fine granular and waxy casts in urine sediment

Nephrotic Syndrome

Minimal change disease, the most common cause, occurs primarily in children

Diabetes is the most common cause for nephrotic syndrome in adults

Kidney damage results in markedly increased protein loss in the urine (> 3.5 G / 24 hours)

Protein loss causes hypoalbuminemia, generalized edema, often 'mobile' edema

Serum albumin decreased, and uremia (increased serum BUN and creatinine)

Fluid accumulation in the lungs may cause shortness of breath, with crackles on auscultation

Acute renal failure

Three main causes:

- Prerenal azotemia may occur with disorders having decreased renal perfusion, such as uncontrolled diarrhea or hemorrhage
- Intrinsic renal damage may result from drugs or other nephrotoxins, such as streptococcal infection
- Postrenal azotemia is seen with conditions that block urine outflow, such as ureteral or bladder obstruction

The patient may manifest oliguria and steadily decreasing renal function (azotemia)

Chronic renal failure

Predominantly a condition of adults

Caused by diabetes, hypertension, polycystic kidney disease, or nephrotoxic drugs

Uremia may produce pruritus, dry skin, and a metallic taste in the mouth

Compromised erythropoietin production may cause pallor, anemia, fatigue

Increased serum BUN, creatinine, triglycerides, potassium, phosphorus, uric acid

Polycystic kidney disease

Inherited condition - cysts cause greatly enlarged palpable kidneys

Cysts cause decreased renal function and hypertension

May also have cysts on liver or associated cerebral aneurysm

No treatment other than dialysis and kidney transplantation

Benign prostatic hyperplasia

Very common in males over fifty

Frequency, urgency, sense of incomplete emptying of the bladder

Nocturia and back pain may manifest

Nontender, smooth, symmetrical enlargement with a rubbery consistency; median sulcus may be less palpable

Prostatitis

May have signs of infection (fever, chills, malaise)

Urethral discharge, dysuria

Dull pain in the perineal area, or low back pain

May have testicular pain and painful ejaculation

Prostate very tender upon palpation, slightly enlarged, with a 'boggy' consistency

Prostate cancer

Second leading cause of cancer in men; Rare before age 50

Frequency, urgency, dysuria, and low back pain

A hard nodule may be palpable on the prostate; lateral margins may be asymmetric; median sulcus less palpable

Priapism

Prolonged, painful erection not associated with sexual stimulation

Phimosis

Foreskin is constricted and will not easily retract

Paraphimosis

Tightened foreskin retracts but will not return to the extended position

Hypospadias

Birth defect - Urethral meatus is displaced ventrally toward the scrotum

Epispadias

Birth defect - Urethral meatus is displaced dorsally toward the umbilicus

Cryptorchidism

Undescended testicle

Klinefelter's syndrome

XXY chromosomal anomaly that causes a feminized appearance in the male

Hypogonadism, poor beard growth, breast development, and small testicles

Testicular Cancer

Rare overall (1% of all male cancer), but most common form of cancer in males age 20-34

Painless nodule on or within the testicle

Cancerous testicle will be larger (and may feel heavy) on that side

Indirect Inguinal Hernia

Most common type of hernia, comprising 60% of all hernias

The hernia passes down the inguinal canal exiting at the external inguinal ring

Upon examination, the hernia presses the tip of the palpating finger

Direct Inguinal Hernia

Second most common type of hernia

The hernia does not pass through the inguinal canal, but exits 'directly' through the external inguinal ring

The hernia presses palpating finger anteriorly when patient coughs or bears down

Femoral Hernia

Femoral hernia is in the groin, but is not an inguinal hernia

Least common groin hernia, and occurs primarily in obese women after several pregnancies

Presents as a bulge at the site of the femoral pulse

Gynecological

Premenstrual Syndrome

Very common, affecting 20-90% of all women during their child bearing years

Nervousness, irritability, emotional instability, anxiety, depression, and possibly headaches, edema, and mastalgia

Occurs during the 7 to 10 days before the onset of menses

Primary Dysmenorrhea (functional dysmenorrhea)

Crampy lower abdominal pain that starts 12-24 hours prior to the onset of menses

Secondary Dysmenorrhea (acquired dysmenorrhea)

Caused by organic pathology, such as endometriosis, uterine fibroids, or PID

Amenorrhea

Primary - Menarche delayed beyond about 16 years of age

Secondary - Cessation of periods in woman who was previously menstruating (pregnancy most common cause)

Turner's syndrome

Genetic anomaly (missing X chromosome) causing a masculinized appearance in a female

Underdeveloped gonadal structures, amenorrhea, poor breast development

Short stature and webbing of the neck

Polycystic ovarian syndrome

Ovaries enlarges with multiple cysts

Irregular periods or amenorrhea

Infertility, obesity, hirsutism

Menopause

Typically occurs age 45-55; less than age 40 is considered premature

Hot flashes, night sweats

Vaginal dryness leading to painful intercourse

Nocturia and urge incontinence

Anxiety, nervousness, irritability

Speculum examination: pale, dry vaginal mucosa with abraded areas that bleed easily

Confirmed with elevated FSH lab test

Endometriosis

Viable functioning endometrial tissue present outside the uterus
Heavy menstrual bleeding (menorrhagia), perimenstrual pain, and painful intercourse (dyspareunia)
Possible infertility

Uterine fibroids

Benign firm lumpy tumor within the uterine wall
Most common pelvic tumor in women; more common in African American women
Most common symptom is heavy, possibly continuous menstrual bleeding

Endometrial Cancer

Most common pelvic cancer, more common than cervical carcinoma
Abnormal uterine bleeding

Ovarian Cancer

Second most common gynecologic cancer
Fourth highest cause of cancer death in American women
Early ovarian cancer may be asymptomatic, or present with non-specific symptoms such as: back pain, fatigue, indigestion, constipation, abdominal pain
Often fatal because it is detected late

Cervical cancer

Third most common gynecologic cancer in women
Intermenstrual bleeding or bleeding after intercourse
May be picked up as a result of a routine PAP smear

Ovarian Cyst

Menstrual irregularities, pelvic pain
Possibly symptoms similar to pregnancy, i.e. morning sickness and breast tenderness

Vulvovaginal infection

Vaginal discharge is the most common symptom cited by women seeking health care
Candidiasis - thick 'cottage cheese' like discharge
Gardnerella - gray white discharge, 'constant wetness', with a musty or fishy odor
Trichomoniasis - frothy, yellow green, foul smelling discharge, 'strawberry' flea-bitten cervix

Pelvic Inflammatory Disease (PID)

Most common among sexually active teenagers
Purulent malodorous vaginal discharge
CDC diagnosis guidelines require all of the following:

- Lower abdominal tenderness
- Adnexal tenderness
- Cervical motion tenderness (Chandelier's sign)
- Absence of a competing diagnosis (such as appendicitis)

May also have fever & elevated WBC count, but these may not be present with mild infection

Ectopic Pregnancy

Approximately 1% of all pregnancies are ectopic
At least one half of these women have a history of previous PID infection
Initially signs of normal pregnancy: amenorrhea, morning sickness, breast tenderness
After about six weeks, the increased embryo size will begin to cause severe abdominal pain, and possibly vaginal bleeding
If rupture and hemorrhage occurs, the woman may manifest signs of shock: decreased BP, clammy skin, pallor, tachycardia
It is impossible for an ectopic pregnancy to come to term; the pregnancy will be terminated by either surgery or miscarriage

Cystocele ('dropped bladder')

Protrusion of the bladder through the anterior wall of the vagina

Rectocele

Part of the rectum protrudes through the posterior wall of the vagina

Pregnancy

- Missed period
- Morning sickness (nausea, vomiting) of 1-4 months duration
- Weight gain
- Breast tenderness and engorgement
- Areola enlarges and becomes darker
- Mongomery's tubercles become more prominent
- Blue network of mammary veins become more visible

Vascular and Lymphatic

Hodgkin's disease

- May present as a lump or swelling in their neck, groin, or axilla
- May be discovered when lung hilar lymph nodes are more visible on a routine chest x-ray
- Fever, night sweats, weight loss, fatigue and severe itching
- Enlarged lymph nodes may palpate as rubbery or matted
- Possible splenomegaly
- Anemia and lymphocytopenia may manifest
- Definitive diagnosis requires the presence of Reed-Sternberg cells (unusually large multinucleated white blood cells) in a lymph node biopsy

Infectious mononucleosis

- Most often seen in adolescents
- Sometimes referred to as the 'kissing disease' because the virus can be spread via saliva
- Symptoms are similar to flu: fever, sore throat, headache, fatigue, malaise
- Often causes cervical lymphadenopathy
- Possible splenomegaly
- Confirmed via the Monospot test (the Paul-Bunnell test was an early version of this test)
- A blood smear will disclose large atypical lymphocytes (Downey cells)

Human Immunodeficiency Virus (HIV) Infection

'Red flag' symptoms that should alert you to the possibility of AIDS:

- long term fatigue for no apparent cause
- lymph nodes swollen for over six months
- fever that lasts for more than ten days
- night sweats
- unexplained weight loss
- severe persistent diarrhea
- purplish or discolored lesions on the skin or mucous membranes that do not heal

ELISA lab test has false positives, so must be confirmed with Western Blot test

CD4 count is used to monitor the progression of the disorder

Peripheral Arterial Occlusion

- Intermittent claudication - cramping muscle pain in the legs while walking, relieved with rest
- Decreased or absent pulses; Pale, cool skin with a possible absence of leg hair
- Sudden throbbing pain if a thrombus breaks loose and becomes lodged
- Leriche's syndrome: 'saddle thrombus' blockage at the bifurcation of the aorta
- Buerger's test may show 'elevation pallor, dependent rubor'
- Arterial insufficiency skin ulcers have well defined edges with no bleeding

Thromboangitis Obliterans (Buerger's Disease)

A specialized form of peripheral arterial occlusion

Occurs primarily in men, age 20-40, who are smokers

Raynaud's Syndrome

- Vasospasm of the small arterioles of the fingers resulting in impaired blood flow, primarily in young women
- Initially the fingers turn white from the lack of blood, then blue as the blood gradually returns, then red when the blood vessels undergo full dilation

Acrocyanosis

Similar to Raynaud's in that it causes a bluish discoloration of the hands

Differs from Raynaud's in that the fingers do not show white or red skin discoloration

Erythromelalgia

Arterial vasodilation that causes swelling, redness, and a burning pain in the feet

Superficial thrombophlebitis

Usually occurs in conjunction with varicose veins

Leg pain that may be burning or throbbing

A tender cord may be palpable and visible beneath the surface of the skin

Deep vein thrombosis (DVT)

Less common than superficial thrombophlebitis, but more serious due to larger clots

Most common location for DVT is the calf

Leg may be swollen and edematous, red, and hot to touch

Homans' foot dorsiflex test may be positive, although this test is often false positive

Venous Insufficiency

Risk factors include pregnancy, obesity, and occupations that involve prolonged standing

Decreased flow of blood back to the heart leads to pitting edema

Skin becomes thick and 'brawny' due to accumulation of waste products

In contrast to arterial insufficiency, pulses are normal

Venous insufficiency ulcers have bleeding uneven edges

Superficial varicosities present as bluish, ropelike cords beneath the skin

Lymphedema

Painless accumulation of excessive lymph fluid and swelling of subcutaneous tissues

Lymphedema produces non-pitting edema (vs. pitting edema seen with CHF)

Lymphedema skin may become thickened and harder than usual

Lymphangitis

May develop as a consequence of a wound such as an animal bite

Manifests as a painful red streak moving centrally from the site of infection

The infective organism is typically a strep or staph infection

Systemic symptoms such as fever, chills, headache, and myalgia may manifest