EENT

Eye

Anatomy

External and Internal layers
Most internal portion: vitreous → retina with macula → optic nerve

Eyelid Disorders

Blepharitis

- **Inflammation of the eyelid**
- Presentation: red rims, eyelashes stick together; “Dandruff of the eyelid”
- Can be related to Seborrheic dermatitis, chronic strep/staph infection
- Tx: gentle lid scrubs with baby shampoo, topical antibiotics

Hordeolum

- General: **acute painful nodule** from blocked gland (“folliculitis of eyelash” or lid margin abscess)
- Presentation: external (“stye”) or internal
- Caused by Staph aureus usually
- Tx: warm compresses, antibiotic ointment; if refractory/severe- I&D

****Hoarders live in a pig stye → Hordeolum = Stye**

Chalazion

- **Chronic** internal granulomatous reaction of meibomian gland
- **Chronic stye that is **nontender**
- Tx: warm compresses → refer to ophthalmology for excision

The “Red Eye”

Conjunctivitis

Causes: bacterial, viral (“pink eye”), chemical, allergic

Viral

- General: Usually **adenovirus**; highly contagious

- **Epidermic Keratoconjunctivitis: severe form of viral conjunctivitis
- Presentation: unilateral or bilateral; thin, watery discharge; preauricular adenopathy; **associated with URI**
- Tx: Eye washes, cool compress, no school

Bacterial

- General: Strep or Staph usually; **Pseudomonas risk with contact lens**;
- Rare: STD's (Chlamydia/Gonococcus)
- Presentation: copious purulent discharge, "eyes glued shut in morning"
- Tx: **Topical abx** (though usually self limiting); **Systemic Abx for STDs**

Iritis, Uveitis, Choroiditis

- General: Inflammation of iris, ciliary body, or choroid (respectively)
- Causes: trauma, infection, rheumatologic
- Presentation: decreased visual acuity with red eye, pain, photophobia but **NO DISCHARGE**
- Slit lamp exam: **cell and flare** (WBC's in anterior chamber; look like "headlights in fog")
- Tx: Dilate pupils, analgesics, steroids (after consulting ophthalmology)
- ** **Ciliary flush**: inflamed vessels up to margin of iris

Subconjunctival Hemorrhage

- General: very common; disturbing to patients due to appearance
- Causes: trauma, valsalva
- Presentation: **painless, no visual loss**
- ****Sharp demarcation of blood at the limbus** seen on physical exam
- Tx: cold compresses, resolves in weeks

External Eye Disorders

Dacrocystitis

- General: inflammation of tear duct caused by Staph aureus usually
- Presentation: **tears don't drain, purulent discharge**; may have adjacent cellulitis from obstruction
- Tx: warm compresses, antibiotics

Foreign Body

- **Look for the foreign body** (FB)!!
- Physical exam: evert eyelids, fluorescein stain
- Removal can be with moist cotton swab, tb needle.
- Corneal abrasions commonly present

- Metallic FB ⇒ **rust ring**; removed with burr device or ophthalmology referral

Beware: **metal on metal work (i.e. grinding) ⇒ possible **intraocular** foreign body

Corneal Abrasions

- General: from minor trauma or foreign body
- Presentation: painful, tearing, foreign body sensation
- Fluorescein stain used to characterize abrasion
- Tx: antibiotic ointment, pain meds, NO PATCHING

****Ice rink sign**- typical for eyelid foreign body that "skates around" on cornea

Keratitis

Inflammation of the cornea

Diffuse, superficial punctate keratitis

- Causes: UV exposure (welders, "snow blindness"), topical eye drug toxicity, dry eye, mild chemical injury
- Presentation: pain, photophobia, redness, FB sensation
- Slit lamp exam: **punctate inflammation of cornea**
- Tx: Supportive (artificial tears, topical antibiotics, cycloplegia)

Corneal ulcers/infiltrates

- Causes: bacterial, fungal, viral (HSV)
- Presentation: pain, red, photophobia, vision defect
- Exam findings: **focal, white opacity +/- corneal epithelial defect**
- Tx: **Ophthalmology** referral

Periorbital/Orbital cellulitis

Inflammation of tissue around the eye

Periorbital cellulitis

Presentation: minimal pain, lid edema

Orbital cellulitis

- Presentation: sick looking, **PAIN WITH EYE MOVEMENT**, ptosis, exophthalmos, purulent discharge, no conjunctivitis
- Kids > adults
- Can be caused by spreading **adjacent infection** (i.e. dental infection, sinusitis)
- Causes: Strep, Staph, H flu, gram negatives, sinus organisms, MRSA
- Workup: Chemistry, CBC, CAT scan
- Tx: Inpatient **IV antibiotics**
- Complications: Meningitis, Sepsis, Orbital/subperiosteal abscess, Cavernus sinus

thrombosis (cranial nerve 3-6 deficits), Vision loss (from high intraocular pressure)

Pearls

- Bacterial conjunctivitis can be caused by *Pseudomonas* in contact lens wearers and rarely by *Chlamydia* or *Gonorrhea*.
- Metal on metal workers are at an increased risk for having intraocular foreign bodies.
- If you suspect a corneal foreign body, do a thorough physical exam to look for it; including everting eyelids and a fluorescein exam.
- Corneal ulcers warrants an ophthalmology referral and on exam are focal, white opacities that may or may not have corneal epithelial defects.
- Orbital cellulitis must be treated with IV antibiotics and can lead to serious complications like meningitis, sepsis, and vision loss.

Eye infections

- **Hypopyon**: layering of WBCs in anterior chamber of the eye. Visual diagnosis
- **Endophthalmitis**: infection of the deep eye structures. Related to hypopyon (but worse), vision threatening, Dx: Pain + vision loss, Infected chambers are hazy and opaque
- Causes: globe rupture, penetrating eye injury, ocular surgery, foreign body
- Tx: **Intraocular + systemic abx**

Eye trauma

Orbital blowout fracture

- Causes:
  - thin orbital walls; orbital floor is the weakest
  - Trauma causes increased IOP orbital floor blowout prolapse into the maxillary sinus
  - Also can happen medially through lamina papyracea prolapse into ethmoid sinus
- Dx:
  - may see orbital emphysema and epistaxis (medial blowout)
  - **Upward gaze inhibition**, pain, diplopia (inferior, 2/2 trapping of CN)
  - Numbness of cheek or upper lip (infraorbital nerve involvement)
- Imaging:
  - Water's view XR: opacity in maxillary sinus, "teardrop" sign (herniated contents)
  - CT orbit > Water's view
- Tx: Refer to ophtho for possible delayed surgery, decongestants

Retrobulbar hemorrhage

- Exophthalmos associated with trauma, secondary to expanding hematoma
- Causes: Pressure behind globe raises IOP + puts pressure on retinal artery = impaired perfusion = ischemia
- "Compartment syndrome of eye"
- Symptoms: vision loss, proptosis, dilated non-reactive pupil

- Tx: meds to lower IOP + lateral canthotomy prn

Retinal detachment

- Retinal tear that allows vitreous to separate retina from choroid
- Causes: can be traumatic or atraumatic; older age
- Symptoms: **flashes of light (peripheral), floaters/spider webs, curtains,** painless
- Dx: ultrasound, exam
- Tx: Emergent ophtho consult
- **Mac-on can be reversible, mac-off probably not reversible**

Hyphema

- blood in anterior chamber of eye. Can result in increased IOP, staining of eye
- Causes usually trauma, but can be perioperatively or 2/2 anticoagulants
- Complications
    - **Most commonly: secondary rebleed as clot retracts, usually worse than initial bleed**
    - Increased risk of glaucoma, adhesions, vision loss
- Tx: can be inpatient or outpatient
- Optho referral, bedrest with head elevated, pain control, cycloplegics, no ASA, +/- steroids
- May use an antifibrinolytic (ex: aminocaproic acid) helps prevent re-bleed
- ****8-ball hyphema surgery**

Chemical injuries

- **Alkali -> liquefaction necrosis (worse)**
- **Acid -> coagulation necrosis**
- Tx: check pH, **irrigate** immediately, recheck pH **(aiming for 7.4)**

Globe Rupture

- scleral injury 2/2 high IOP
- Dx: **teardrop pupil (points to rupture), Seidel's sign (waterfall),** flattened anterior chamber, may have associated lacs or extrusion of eye contents
- Imaging: CT
- Tx: **hard shield over eye**, analgesia, tetanus vaccine, IV abx, ophtho c/s, control nausea or anything that can increase IOP

****don't use tonopen or anything that will contact eye (can worsen)**

Chronic eye disorders

Cataracts

- lens opacification
- Causes: age, congenital, trauma, meds (steroids, lovastatin), lightning(!), excess sun exposure
- Symptoms: gradual onset of blurry vision/decreased acuity
- Tx: surgery

Pinguecula:

- Raised, fleshy conjunctival mass
- Causes:
    - chronic exposure to dry, windy conditions and UV
    - Build-up of protein, fat, calcium (like a callus)
- Can get inflamed
- Tx: not necessary, but can be removed surgically

Pterygium:

- slowly-growing thickening of conjunctiva
- Symptoms: vascular triangular mass growing usually from nasal side toward center of eye ("bat wing")
- Occasionally can creep onto cornea and into visual axis
- Can develop from a pinguecula
- Tx: only if interfering with visual axis, can be removed but often recurs

Papilledema

- Swelling of the optic disk 2/2 increased ICP, often bilateral
- Symptoms: vision preserved, may have diplopia
- May have headache/nausea from ICP.
- Dx: blurred, elevated disc margins, absent/decreased venous pulsations

Glaucoma

- increased IOP
- *May be acute or chronic
- Causes: results from a problem with aqueous humor flow through trabecular network, canal of schlemm back-up too much fluid builds up
- Complications: leads to damage of the optic nerve

Open angle: chronic

- Age>40, more common in AA, can be genetic
- Dx: elevated IOP
- Tx: Ophtho referral, topical/systemic meds to decrease aqueous production and increase flow

Acute angle closure: ophtho emergency

- **Painful,** loss of vision, **headache**, nausea, **"halos" around objects**
- Hx: transition from bright light to dark light (ie walking into a movie theater) pupil dilation iris pushed against trabecular meshwork
- Dx: injected eye, fixed mid-dilated pupil and steamy cornea, elevated IOPs (40-70)
- Tx: Emergent ophtho referral, topical/systemic meds to decrease aqueous production and increase flow
- IV carbonic anhydrase inhibitor, beta-blocker gtts, osmotic diuresis (mannitol), pilocarpine (miosis)

Optic neuritis:

- inflammation of optic nerve
- **Sudden,** reduced vision, **specifically color vision**
- Pain with eye movement
- Causes: associated classically with Multiple Sclerosis, but also caused by methanol, ethambutol, SLE, infections (syphilis, lyme, herpes, zoster)

****May not see anything on fundoscopy, history crucial**

Retinal Vascular Occlusion:

central retinal artery or vein occlusion

CRAO: emergency

Causes: emboli, thrombosis, or vasculitis

- Symptoms: **sudden, painless, unilateral vision loss**
- Dx: arteriolar narrowing, **"box-cars", "cherry-red spot"** (perifoveal atrophy, fovea has separate blood supply)
- Tx: emergent ophtho referral, workup atherosclerotic dz. Prognosis is poor if vision is lost.

CRVO

- Causes: usually thrombosis
- Symptoms: sudden, painless, unilateral vision loss
- Dx: arteriolar narrowing, **"blood and thunder"** retina (dilated veins, hemorrhages, edema)
- Tx: prognosis is generally good; pt's should have a thrombosis workup

Pearls

- Endophthalmitis is an ocular emergency, need both IV and intraocular abx
- In eye trauma, check EOM to eval for entrapment 2/2 orbital blowout fxs
- Flashes/floaters/curtains è retinal detachment
- Concern in hyphemas is rebleed; 8-ball hyphemas need surgery
- Alkali chemical injuries are worse than acidic; irrigation is key in both
- In suspected globe rupture, don't use anything that will contact the eye (ie tonopen)
- Acute closed-angle glaucoma can present as a HA, will have painful, red eye
- Optic neuritis may not have anything on PE, have high suspicion from history
- With sudden, painless, unilateral vision loss, think CRAO or CRVO

Ear

Foreign Bodies

- complications: otitis externa, tympanic membrane (TM) perforation
- **button battery is an emergency**

Cerumen Impaction

- a common cause of (conductive) hearing loss
- removal: Warm water, Hydrogen peroxide, docusate, curette, over the counter drops

Perforated TM

- may happen from trauma (cue tip), pressure (barotrauma)
- most small perforations will heal, large perforations may need tympanoplasty
- **NO WATER in ear until closure**

Vertigo

- sensation of movement or of objects moving around you, worse with movement
- peripheral: Labrynthitis, Meniere's disease
- central: tumor, arteriolar-venous malformations, multiple sclerosis
- **Treatment** severe: benzodiazepine, scopolamine mild: (anticholinergics) meclizine, dimenhydrinate

Distinguishing Vertigo

Peripheral Vertigo

- **sudden onset, nausea/vomiting**, +/- tinnitus, +/- hearing loss
- nystagmus: **horizontal**, fatigable (will go away), fixation inhibition (will go away if fixed on an object)
- normal neuro exam

Central Vertigo

- **slower onset**, milder symptoms
- nystagmus: **vertical**>horizontal, **nonfatigable**, **no suppression** with fixation
- **neurological findings**

Labrynthitis

- severe acute vertigo + hearing loss + tinnitus
- post viral illness or otitis
- Treat symptomatically

Dix-Hallpike

- quickly turn head to side while lying supine reproduces vertigo
- more likely to be positive with peripheral causes

Meniere's Disease

- **progressive 1) hearing loss, 2) tinnitus, and 3) vertigo**
- older patient, etiology unknown, distention of endolymphatics
- **can have recurrent attacks, but also progressive**
- treatment: diuretics and salt restriction, surgery for severe cases

Acoustic Neuroma

- vestibular schwannoma (benign tumor of the acoustic nerve)

- unilateral, more common in females, grows slowly
- symptoms: vertigo, hearing loss, ataxia, tinnitus
- CT/MRI for diagnosis, treatment with surgery
- **refractory vertigo unresponsive to symptomatic management**

Otitis Media (OM)

- infection of middle ear, usually viral and self limited
- **most common in 4mos-2years but possible in any age**
    - Eustachian tube is more horizontal poor drainage inflammation+edema
- bacterial OM: S. Pneumococcus, H. influenzae, Moraxella
- presentation: pressure, pain, hearing loss, +/- fever, irritability
- physical: immobile, erythemic, bulging TM ottorhea if ruptured chronic OM
- complication: Mastoiditis (posterior auricular pain, erythema and fevers)
- Treatment
    - **Uncomplicated cases: symptomatic treatment only**
    - 1st line: amoxicillin, augmentin, bactrim
    - Resistant to therapy myringotomy, tympanostomy
    - **Mastoiditis: IV antibiotics**

Otitis Externa

- “Swimmers ear” Inflammation of external ear canal clogged and edematous
- Ear pain and tenderness **especially with manipulation of tragus or auricle**
- Treatment: otic antibacterial drops and keep canal dry, can be chronic

Malignant (bad) otitis externa

- **older diabetics**, necrotizing infection extending to cartilage and bone
- **Inpatient IV antibiotics** with **pseudomonal coverage**

Cholesteoma

- epidermal cyst of middle ear, destructive
- **most often acquired** from chronic OM or TM perforation, **can be congenital**
- presents with hearing loss, **otorrhea**, tinnitus, vertigo, facial nerve symptoms
- treatment: surgical referral\

Pearls

- Button batteries in the ear must be removed immediately
- Perforated TM should not get any water in their ear until closure
- Peripheral Vertigo: sudden onset, horizontal fatigable nystagmus, , +/- tinnitus, +/- hearing loss, no neurological symptoms
- Central vertigo: slow onset, vertical>horizontal non-fatigable nystagmus, neurological symptoms
- Mastoiditis requires IV antibiotics, Malignant otitis external needs IV antibiotics with pseudomonas coverage

Nose

Cavernous sinus thrombosis

- complication of a **facial infection**
- face, mouth, and ear share venous drainage to cavernous sinus
- fever, sick appearance, edema of face/eyelids (venous obstruction), proptosis, chemosis
- **cranial nerve palsies**
    - III (pupillary abnormalities)
    - IV, V, VI (most Common)
- **image with CT/MRI**

Epistaxis

- **90% of bleeds are anterior (Kiesselbach's plexus)**
- causes: dry mucosa, trauma (nose picker)
- treatment: Pressure visualization bleeding site anesthesia cauterization
- may need to pack (give antibiotics to prevent staphylococcal toxic shock syndrome)
- **posterior bleed is from a branch of the sphenopalatine artery**
- uncommon, elderly, hypertensive, **will see blood in pharynx**
- anterior packing wont control bleeding need posterior pack inpatient admission for cardiac/airway monitoring

Nasal foreign body

- kids, intellectually challenged adults
- usually a bead or food **sinusitis, airway problem**
- **button battery needs emergent removal**

Nasal Polyps

- benign polyps, overgrowth of mucosa, often in allergic rhinitis
- **can block nose and cause sinusitis**
- tend to recur, treatment with steroids sprays, rinses, surgery
- associated with aspirin allergy and asthma

Allergic Rhinitis

- inflammation of nasal mucosa due to IgE response to allergens
- common in atopic conditions (eczema, asthma, atopic dermatitis)

Sinusitis

- any inflammation of the sinus cavities, **usually follows a URI**
- **viral etiology is most common**, bacterial is less common
- presentation: headache, facial pain (worse with leaning forward), purulent drainage, +/- fever, tender to palpation, opacification with illuminations
- **complications: osteomyelitis, cavernous sinus thrombosis, orbital cellulitis**
- **CT if resistant to treatment or immunocompromised**
- treatment: saline nasal spray/washes, decongestants, steam
- **Antibiotics if acute sinusitis with purulent discharge treat for 10-14 days**

Mouth/Throat

- **Differentiating allergic rhinitis**
- exam: **shiners**(bluish under eyes), rhinorrhea, watery, red eyes, dry cough, boggy nasal mucosa, horizontal crease of nose in kids
- discharge is clear and watery
- treatment: avoid allergens, antihistamines, nasal/systemic steroids, saline drops, immunotherapy

Aphthous Stomatitis

- inflammation of the mucous structures of mouth
- **pain may lead to oral intake**
- causes: stress, oral trauma, hormonal, radiation therapy Treatment: symptomatic
- **gingival involvement = gingivostomatitis**

Aphthous Ulcer "canker sore"

- painful intra-oral shallow red ulcer with **surrounding white halo**
- unknown etiology, treatment: topical steroids, mouth rinses, benzocaine gel

Herpes Gingivostomatitis

- **adenopathy and fever may precede ulcers by a few days**
- vesicular intraoral lesions painful ulcers on gingival and oral mucosa
- may develop secondary infection of lip
- treatment: antivirals may shorten duration and reduce severity
- **dehydration possible secondary to decreased oral intake**

Herpangina

- coxsackie virus, fever, sore throat with oral vesicles painful ulcers
- **spare the buccal mucosa, gingival and tongue,** common on soft palate, uvula, posterior pharynx can last a week
- **dehydration possible secondary to decreased oral intake**

Acute Necrotizing Ulcerative Gingivitis

- ANUG/trench mouth/meth mouth, **red swollen gums with foul odor**
- poor oral hygiene, stress
- fusobacterium, spirochetesTreatment: Metronidazole, clindamycin
- **DDx: phenytoin toxicity, acute leukemia, HIV**

Sialolithiasis/Sialoadenitis

- inflamed salivary glands erythema, pain, swelling of area +/- purulence
- etiology: bacterial, viral, autoimmune, sialolithiasis
- **stones most common in submandibular gland**
- treatment: antibiotics if erythematous, sialogogues, analgesia

Herpes simplex

- HSV-1 usually, painful, +/- fever, myalgias
- peds: initial presentation is herpes gingivostomatitis
- contagious, recurrent, treatment is supportive

Pulpitis

- caries that penetrate through enamel, dentin, and into pulppainful
- if penetrates into base of tooth then it's a **periapical abscess**
- Xray: panorex reveals inflammation at base of tooth

Periodontal abscess

- gingival abscess around the tooth, not of the tooth
- from foreign body or plaque in gingiva

Pericoronitis

- rim of inflammation around an unerupted/impacted tooth (crown of tooth)
- common with third molar

Infraorbital space

- edema from maxillary tooth infection that has spread to "canine space"
- associated with lower lid or periorbital swelling
- **tend to point medially toward med canthus OR laterally, below lateral canthus**
- **high risk for cavernous sinus spread**

Alveolar Osteitis/Dry Socket

- severe pain **2-5 days post-extraction, due to loss of clot** localized osteomyelitis
- treatment: Pain meds, anesthesia, socket irrigation and pack with gauze, eugenol, antibiotics, refer

Pearls

- Cavernous sinus thrombosis is a complication of a facial infection, leads to venous obstruction, facial edema, and can cause cranial nerve palsies (III-VI)
- 90% of epistaxis is anterior or from Kesselbachs plexus, posterior epistaxis is from a branch of the sphenopalatine artery and will need admission for airway protection
- sinusitis is usually viral, but if acute sinusitis with purulent discharge treat with a long course of antibiotics for 10-14 days
- Herpes gingivostomatitis and Herpangina can cause dehydration
- DDx of gingival hyperplasia includes, HIV, Phenytoin toxicity, acute leukemia

Ludwig's Angina

- General: Cellulitis of submandibular/sublingual space; originates from dental infection (**"dental infection gone bad"**)

- Presentation: **brawny, painful edema** of submandibular area that pushes tongue up Possible airway emergency!
- Tx: IV antibiotics (abx), expectant airway management, dental infection management

Candidiasis

- Presentation: white patches on tongue, cheek, or throat; burning pain
- Patches **can be scraped off** to see underlying red, friable tissue
- Who: Immunocompromised, Abx use
- Tx: local antifungals

Peritonsillar abscess (aka Quinsy)

- General: most common deep facial infection in adults
- Presentation: severe throat pain, trismus, **deviated soft palate and uvula**, muffled/hot potato voice
- Tx: Incision and drainage, aspiration and abx

Retropharyngeal abscess

- Who: infants and kids
- Presentation: Fever, neck pain, problems with talking/breathing/swallowing
- Soft tissue neck X Ray: shows displacement/gas of anterior soft tissue of posterior pharyngeal wall

Xray pitfall: neck flexion may hide prevertebral swelling

- Diagnostic imaging: **CT**
- Tx: IV abx, **ENT consult** for drainage

Parotitis

- General: Inflammation of parotid gland(s)
- Causes: infectious (bacterial, TB, Viral, Mumps, HIV); autoimmune (Sjogren's); obstruction (stone, tumor with bacterial superinfection)
- Tx: symptomatic (sialogogues-lemon drops); surgery

Epiglottitis

- General: Life-threatening infection of epiglottitis and surrounding tissues
- Historically common in children (no longer true because of the *H. flu* vaccine)
- Now seen more in adults
- Presentation: sudden onset fever, dysphagia, sore throat, drooling, tripod/sniffing position
- Lateral soft tissue neck Xray → **"thumb print sign"**: enlarged epiglottis
- Evaluate airway in the OR with **possible airway** (kids)
- Tx: IV antibiotics

Bacterial tracheitis

- General: Uncommon pediatric disease (6 month to 14 year olds); **Viral pharyngitis with bacterial superinfection** (*Staph, Strep, M. catarrhalis*)
- Presentation: toxic appearance with croup-like cough; wheezing/stridor; purulent secretions
- AP Neck Xray → **"Steeple sign"**
- Airway **obstruction possible** (due to purulent secretions)

Croup

- General: Common in kids 6 months to 3 years; cause by Parainfluenza
- Presentation: Insidiuous, low grade fever with **"barking" cough**; respiratory distress common
- Tx: humidified air, steroids, racemic epinephrine (in severe cases)

Laryngitis

- General: Typically after URI; Viral
- Presentation: **Hoarseness** with little/no pain
- Tx: Supportive and vocal rest (to prevent vocal cord nodules)

Acute Pharyngitis

- Common
- Presentation: Odynophagia, dysphagia, redness, lymphadenopathy; +/- fever or exudate
- Bacterial vs Viral etiology
    - Viral pharyngitis: more gradual onset; commonly with coryza and low grade fever; usually no exudates
    - **Centor Criteria** [06:22]- one point for each of the following:
    - **Fever** greater than 38 C (100.4F), Tender anterior cervical **lymphadenopathy**, **Lack of cough**, **Exudates**
        - 3 of 4 → Highly suggestive Group A Strep pharyngitis
        - 2 of 4 → consider culture
        - 1 of 4 → consider viral cause
- Tx: Bacterial → Penicillin or erythromycin; Viral → supportive

Temporomandibular Joint Disorders

- General: Mandibular dislocation can occur in **extreme opening** (yawning/laughing) or **trauma**
- Pathophysiology: Condyle moves anteriorly and locks in anterior superior aspect of

eminence
    - If unilateral → jaw deviates to opposite side
- Tx: **Posterior and Inferior pressure** (must overcome strength of masseter muscle to relocate)

Pearls

- Ludwig angina can be caused by a dental infection that spreads to the sublingual space and pushes the tongue up, causing a possible airway emergency.
- Retropharyngeal abscesses can be missed in a lateral neck xray taken in flexion and warrants a CT scan for diagnosis.
- Bacterial tracheitis can cause airway obstruction due to purulent secretions.
- Epiglottitis is now a disease in adults that can be diagnosed with a lateral neck xray.
- The Centor Criteria (Fever, Lymphadenopathy, Lack of Cough, Exudates) should be used to distinguish bacterial from viral pharyngitis.
- Jaw dislocations can occur in trauma or extreme opening and need to be reduced with posterior and inferior pressure