

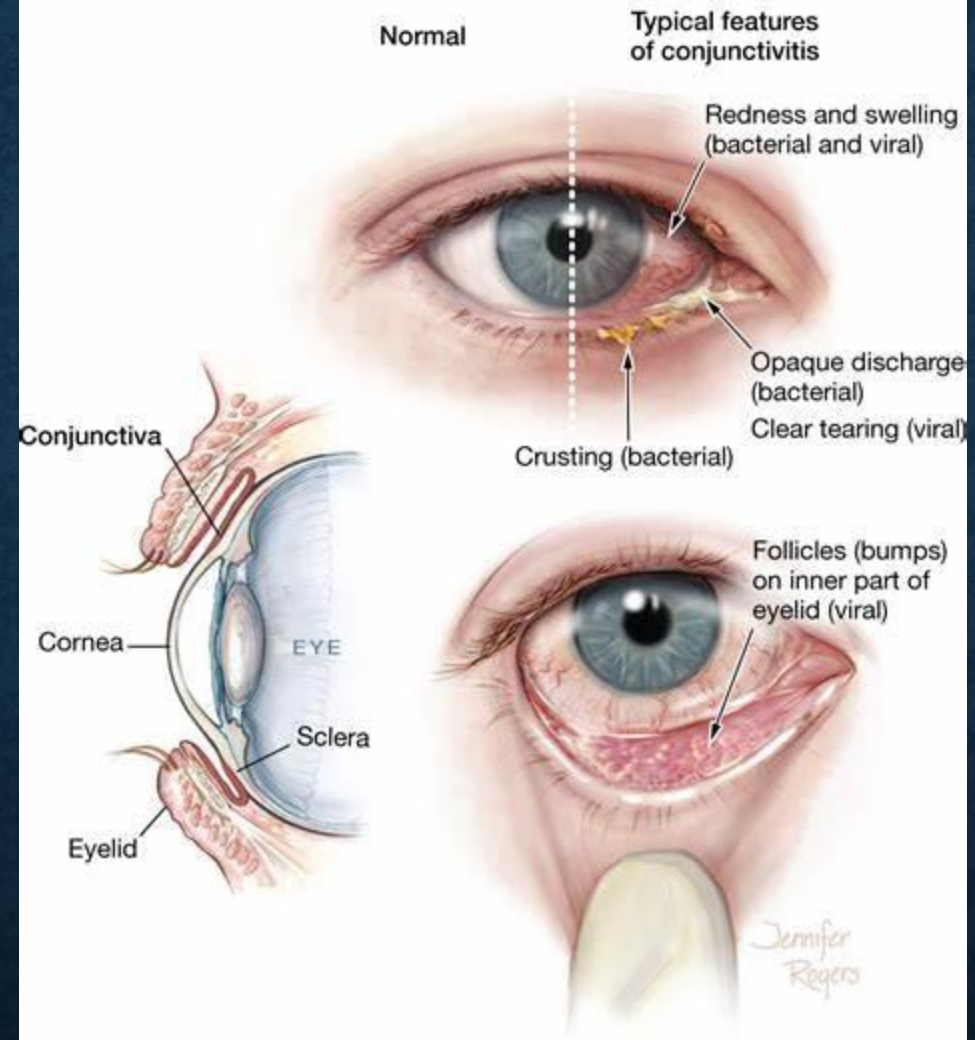
CONJUNCTIVITIS (PINK EYE)

Dr Ghasem Saeedi

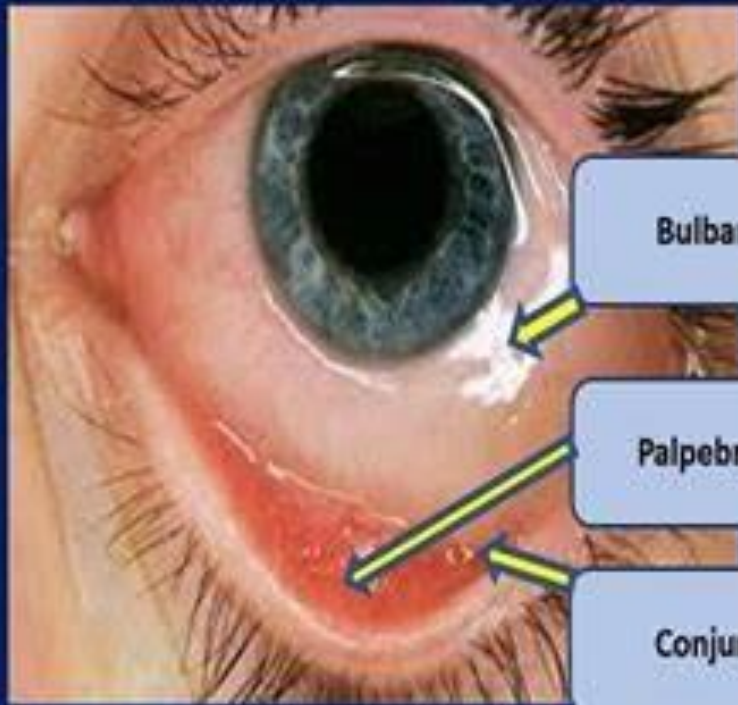
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Conjunctivitis



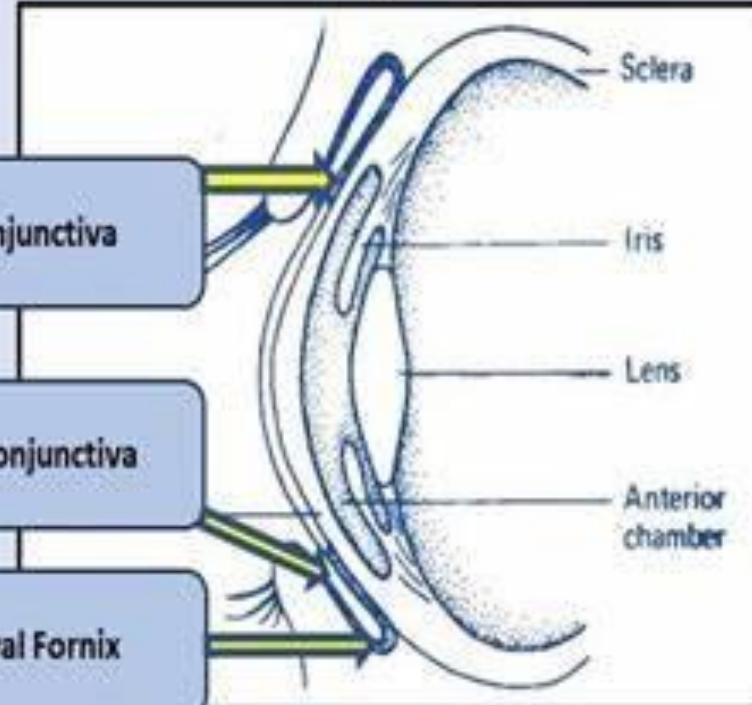
ANATOMY OF CONJUNCTIVA








Bulbar Conjunctiva





Palpebral Conjunctiva

Conjunctival Fornix



	Conjunctivitis	Subconjunctival Hemorrhage	
			
Pattern of Redness	Conjunctival injection: diffuse dilatation of conjunctival vessels with redness that tends to be maximal peripherally	Leakage of blood outside of the vessels, producing a homogeneous, sharply demarcated, red area that resolves over 2 weeks	
Pain	Mild discomfort rather than pain	Absent	
Vision	Not affected except for temporary mild blurring due to discharge	Not affected	
Ocular Discharge	Watery, mucoid, or mucopurulent	Absent	
Pupil	Not affected	Not affected	
Cornea	Clear	Clear	
Significance	Bacterial, viral, and other infections; highly contagious; allergy; irritation	Often none. May result from trauma, bleeding disorders, or sudden increase in venous pressure, as from cough	
	Corneal Injury or Infection	Acute Iritis	Acute Angle Closure Glaucoma
			
Pattern of Redness	Ciliary injection: dilation of deeper vessels that are visible as radiating vessels or a reddish violet flush around the limbus. Ciliary injection is an important sign of these three conditions but may not be apparent. The eye may be diffusely red instead. Other clues of these more serious disorders are pain, decreased vision, unequal pupils, and a clouded cornea.		
Pain	Moderate to severe, superficial	Moderate, aching, deep	Severe, aching, deep
Vision	Usually decreased	Decreased; photophobia	Decreased
Ocular Discharge	Watery or purulent	Absent	Absent
Pupil	Not affected unless iritis develops	Small and irregular	Dilated, fixed
Cornea	Changes depending on cause	Clear or slightly clouded; injection confined to corneal limbus	Steamy, cloudy
Significance	Abrasions, and other injuries; viral and bacterial infections	Associated with systemic infection, Herpes zoster, tuberculosis; refer promptly	Acute increase in intraocular pressure constitutes an emergency

Differential diagnosis of red eye with no injury

				
	Conjunctivitis	Corneal ulcer	Acute iritis	Acute glaucoma
Eye	Usually both eyes	Usually one eye	Usually one eye	Usually one eye
Vision	Normal	Usually decreased	Often decreased	Marked decrease
Eye pain	Normal or gritty	Usually very painful	Moderate pain, light sensitive	Severe pain (headache and nausea)
Discharge	Sticky	Watery	Watery	Watery
Conjunctiva	Generalised (variable) redness	Redness most marked around the cornea	Redness most marked around the cornea	Generalised redness
Cornea	Normal	Grey, white spot (fluorescein staining)	Usually clear, (keratitic precipitates may be visible with magnification)	Hazy (due to fluid in the cornea)

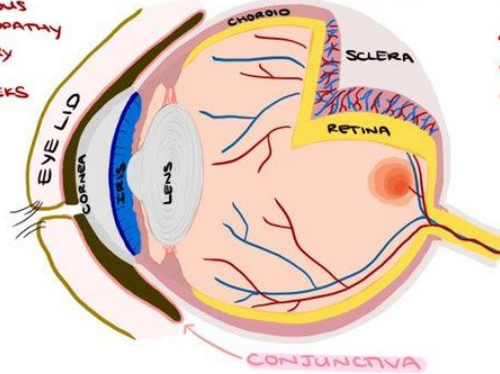


SUBCONJUNCTIVAL HEMORRHAGE

- MAY OR MAY NOT HAVE A HISTORY OF ASSOCIATED TRAUMA OR INJURY (MAY HAVE JUST WOKEN UP WITH IT)
- GOOD PRACTICE TO EVALUATE FOR TRAUMA, ↑ VENOUS PRESSURE (Coughing, Valsalva), HYPERTENSION, ↑ COAGULOPATHY
- USUALLY ASYMPTOMATIC → IF PAIN IS PRESENT, ASSESS FOR CORNEAL INJURY + OTHER CAUSES FOR PAIN
- ★ HARMLESS, RESOLVES ON OWN WITH REABSORPTION OVER A FEW WEEKS

BLEPHARITIS

- = CHRONIC INFLAMMATION OF THE EYELID MARGINS
- CRUSTY, ITCHY, SWOLLEN RED EYELIDS
- CAN BE ASSOCIATED WITH SEBORRHEIC DERMATITIS + ROSACEA
- CLINICAL DIAGNOSIS
- TREATMENT = EYELID HYGIENE → CLEANSING, WARM COMPRESSES + EYELID MASSAGE
- MAY REQUIRE TOPICAL ANTIBIOTICS IF SYMPTOMS PERSIST



CONJUNCTIVITIS

= INFLAMMATION OF THE CONJUNCTIVA → MUCOUS MEMBRANE LAYER THAT COVERS THE ANTERIOR SCLERA (BULBAR CONJUNCTIVA) + THE INNER EYELIDS (TARSAL CONJUNCTIVA)

VIRAL CONJUNCTIVITIS

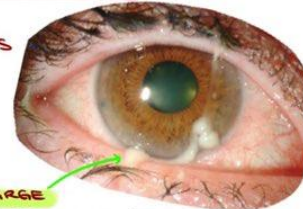


- TYPICALLY CAUSED BY **ADENOVIRUS**
- VERY CONTAGIOUS VIA DIRECT CONTACT OR CONTAMINATED SURFACES (SWIMMING POOLS)
- SYMPTOMS = CONJUNCTIVAL INJECTION, WATERY/MUCOSEOUS DISCHARGE, + A GRITTY SENSATION
- CRUSTING IN THE MORNING IS ALSO TYPICAL
- ★ 2nd EYE IS TYPICALLY AFFECTED 24-48 HOURS AFTER THE FIRST EYE
- OFTEN ASSOCIATED WITH A VIRAL PRODRROME
- SYMPTOMS CAN LAST 2-3 WEEKS
- THE REDNESS + DISCHARGE TYPICALLY GET WORSE THE FIRST 3-5 DAYS
- TREATMENT = SUPPORTIVE, SYMPTOMATIC CARE (COLD COMPRESSES, DECONGESTANTS)
- ★ SECONDARY BACTERIAL INFECTIONS ARE RARE



ACUTE BACTERIAL CONJUNCTIVITIS

- MOST COMMONLY CAUSED BY **Staphylococcus aureus** IN ADULTS
- IN CHILDREN THESE ARE MORE COMMON:
 - Strep pneumo
 - Haemophilus influenzae
 - Moraxella catarrhalis
- SPREAD THROUGH DIRECT CONTACT → VERY CONTAGIOUS!
- THICK, GLOBULAR, PURULENT DISCHARGE IS CHARACTERISTIC + ITS PRESENCE, ESPECIALLY CONTINUOUS THROUGHOUT THE DAY, CAN HELP DISTINGUISH IT FROM VIRAL ETIOLOGIES
- MAJORITY OF CASES (NOT DUE TO GONORRHEA OR CHLAMYDIA OR AIN CONTACT LENS USE) ARE SELF-LIMITING → ~60% RESOLVE WITHOUT ANTIBIOTICS IN 1-2 WEEKS
- TOPICAL ANTIBIOTICS DECREASE DURATION OF DISEASE
 - META-ANALYSIS OF >3,500 PATIENTS SHOWED 10% INCREASE IN THE RATE OF CLINICAL IMPROVEMENT WITH TOPICAL ABX
 - + ZERO SEVERE COMPLICATIONS IN EITHER TX OR PLACEBO GROUPS
- SOME TREATMENT OPTIONS:
 - ERYTHROMYCIN OINTMENT
 - TRIMETHOPRIM-POLYMYXIN B
 - AZITHROMYCIN 1%
 FOR 5-7 DAYS
- LESS FREQUENT DOSING, BUT MUCH MORE EXPENSIVE
- ★ CONTACT WEARERS ARE AT ↑ RISK FOR PSEUDOMONAS CONJUNCTIVITIS (4 KERATITIS = CORNEAL INFLAMMATION) → IF KERATITIS IS RULED OUT, TREAT WITH A FLUOROQUINOLONE
- ★ CHRONIC CONJUNCTIVITIS: SYMPTOMS LASTING > 4 WEEKS
- ★ HYPERACUTE CONJUNCTIVITIS IS USUALLY DUE TO *Neisseria gonorrhoeae*, IS MORE LIKELY TO BE PAINFUL, + REQUIRES EMERGENT + CRITICAL CARE TREATMENT



EPISCLERITIS

= INFLAMMATION OF THE EPISCLERA (THIN LAYER BETWEEN THE CONJUNCTIVA + THE SCLERA)

- USUALLY DEVELOPS ABRUPTLY
- DEFINED AS EITHER SIMPLE OR NODULAR → CAN ALSO EITHER BE LOCALIZED OR DIFFUSE
- DIAGNOSED CLINICALLY WITH CHARACTERISTIC BRIGHT RED, DILATED VESSELS
- USUALLY PAINLESS, BUT MAY BE AIN IRRITATION + WATERING
- SUPPORTIVE TX (ARTIFICIAL TEARS) USUALLY RESOLVES IT IN LESS THAN A FEW WEEKS
- MAY REQUIRE NSAIDS OR STEROIDS IF PERSISTENT AND EVALUATION FOR OTHER DIAGNOSIS (SCLERITIS) OR SYSTEMIC CONDITIONS (RHEUMATOID ARTHRITIS)



DRY EYE = KERATOCONJUNCTIVITIS SICCA

- A COMMON DISEASE AFFECTING ~7% OF THE U.S. POPULATION
- RISK FACTORS =
 - ↑ AGE
 - FEMALE SEX
 - MEDICATIONS (ANTICHOLINERGICS)
 - SOME SYSTEMIC DISEASES (SJOÖGREN'S SYNDROME, PARKINSON DISEASE)
- DIAGNOSIS IS USUALLY MADE CLINICALLY BASED ON SYMPTOMS + PHYSICAL EXAM FINDINGS (CONJUNCTIVAL INJECTION, CORNEAL DAMAGE...)
- SCHIRMER TEST = QUANTIFICATION OF TEARS BY PUTTING FILTER PAPER IN THE LOWER EYELID + MEASURING # OF MILLIMETERS UP THE STRIP THE TEARS GO OVER 5 MINUTES
- PRODUCES VARIOUS RESULTS

CHRONIC AUTOIMMUNE INFLAMMATION → SALIVARY + LACRIMAL DYSFUNCTION

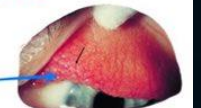
* ~10% OF PATIENTS WITH CLINICALLY SIGNIFICANT DRY EYES HAVE SJOÖGREN



ALLERGIC CONJUNCTIVITIS



- COMMONLY ASSOCIATED WITH ATOPY:
 - ALLERGIC RHINITIS (MOST COMMON)
 - ECZEMA
 - ASTHMA
- ★ AFFECTS ~20% OF THE POPULATION EACH YEAR
- AVERAGE AGE OF ONSET = 20 YEARS, TYPICALLY OCCURRING LESS FREQUENTLY AS ONE AGES
- PATHOPHYSIOLOGY = TYPE 1 HYPERSENSITIVITY REACTION (IgE)
- CARDINAL SYMPTOM = **PRURITUS** → IF ABSENT, CONSIDER DIFFERENT DIAGNOSIS
- TREATMENT: START WITH COLD COMPRESSES + CHILLED ARTIFICIAL TEARS
- AVOID ALLERGENS
- OTC ANTIHISTAMINES/VASOCONSTRICTORS CAN HELP BUT SHOULDN'T BE USED FOR MORE THAN 2 WEEKS DUE TO POSSIBLE REBOUND
- MORE SEVERE FORMS OF ALLERGIC OCULAR DISEASE EXIST INCLUDING VERNAL KERATOCONJUNCTIVITIS, WHICH PRESENTS WITH COBBLESTONING OF THE TARSAL CONJUNCTIVA



PAINFUL "RED EYE"

DIFFERENTIAL DIAGNOSIS

ACUTE ANGLE-CLOSURE GLAUCOMA



- RAPID INCREASE IN INTRAOCULAR PRESSURE DUE TO SUDDEN BLOCKAGE OF AQUEOUS HUMOR
 - ↳ AQUEOUS HUMOR IS PRODUCED BY THE CILIARY BODY + DRAINS INTO CANALS FOUND BETWEEN THE IRIS + CORNEA ⇒ WITHOUT DRAINAGE, PRESSURE BUILDS UP + CAN CAUSE OPTIC NERVE DAMAGE
 - ↳ USUALLY TRIGGERED BY RAPID PUPILLARY DILATION ⇒ DARK ROOM, ANTICHOLINERGICS
- IN ADDITION TO EYE PAIN AND REDNESS, IT'S ASSOCIATED WITH:
 - ↓ VISION
 - HALOS AROUND LIGHTS
 - NAUSEA + VOMITING
 - HEADACHE

IRITIS

AKA ANTERIOR UVEITIS



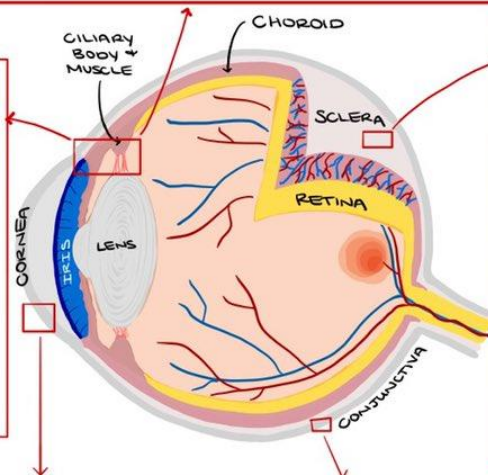
"CILIARY FLUSH" = CARDINAL SIGN OF IRTIS THAT APPEARS AS A RED RING AROUND THE IRIS
↳ ALSO KNOWN AS PERILIMBAL INJECTION

◦ PUPIL IS USUALLY CONSTRICTED + POORLY REACTIVE

* SHINING A LIGHT IN THE OPPOSITE EYE (CONSENSUAL LIGHT REFLEX) EXACERBATES PAIN

ETIOLOGY = INFECTION, AUTOIMMUNE DISEASE (REACTIVE ARTHRITIS), + INFILTRATIVE DISEASE (SARCOID)

UVEA = "grape" IN LATIN IS THE LAYER UNDER THE SCLERA CONSISTING OF THE IRIS, CILIARY BODY, + CHOROID



SCLERITIS

- CAUSES A SEVERE, BORING PAIN
 - ↳ RADIATES TO THE PERIORBITAL AREA
 - ↳ EXACERBATED BY MOVEMENT
- * ISOLATED POSTERIOR SCLERAL INFLAMMATION MAY NOT HAVE ANY VISIBLE REDNESS
- DESTRUCTIVE + CAN CAUSE BLINDNESS
 - ↳ 14% OF PATIENTS LOSE SIGNIFICANT VISUAL ACUITY WITHIN 1 YR + 30% WITHIN 3 YRS

ETIOLOGY = ABOUT HALF OF THE TIME IT IS ISOLATED + OTHER HALF ASSOCIATED WITH SYSTEMIC DISEASE

- MOST COMMONLY ASSOCIATED WITH RHEUMATOID ARTHRITIS
- GRANULOMATOSIS WITH POLYARTERITIS
- IBD
- INFECTIONS (HSV, SYPHILIS, TB)



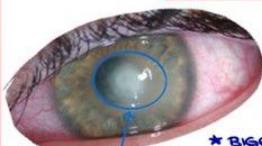
NOULAR ANTERIOR SCLERITIS



NECROTIZING ANTERIOR SCLERITIS

KERATITIS = CORNEAL INFLAMMATION

◦ CAN BE DUE TO DIRECT ABRASION (CONTACTS) OR INFECTION



CORNEAL OPACITY OR WHITE SPOT IS CLASSIC

BACTERIAL KERATITIS

- * BIGGEST RISK FACTOR = IMPROPER CONTACT LENS WEAR (i.e. overnight wear)
- TYPICAL BACTERIA = Staph, Strep + Pseudomonas
- MUCOPURULENT DISCHARGE



PARASITIC KERATITIS

- * ONCHOCERIASIS = "river blindness" DUE TO BLACKLY SITE
- * 2nd LEADING CAUSE OF INFECTIOUS BLINDNESS WORLDWIDE
- ↳ HIGHLY ENDemic IN AFRICA WITH NIGERIA + ZAIRE BEING THE MOST AFFECTED
- * ACANTHAMOEBA → CAC HEALTH ADVISORY 2ND 2005 FOR A CONTACT LENS USER WHO USED A CONTACT LENS

VIRAL KERATITIS

- HERPES SIMPLEX KERATITIS
 - ↳ MAY SEE A BRANCHING OPACITY WITH PENLIGHT EXAM THAT IS HIGHLIGHTED BY FLUORESCIN
- CAN ALSO BE CAUSED BY VZV, EBV, CMV, + ADENOVIRUS

FUNGAL KERATITIS

- CANDIDA, ASPERGILLUS



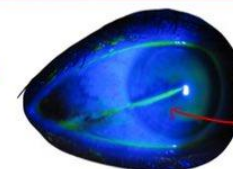
HYPERACUTE BACTERIAL CONJUNCTIVITIS

- TYPICALLY CAUSED BY Neisseria gonorrhoeae VIA DIRECT INOCULATION FROM GENITAL SECRETIONS
- CAN PROGRESS RAPIDLY TO CORNEAL PERFORATION
- ASSOCIATED WITH COPIOUS PURULENT DISCHARGE THAT DEVELOPS QUICKLY AFTER INOCULATION (12 HRS)
- * REQUIRES AGGRESSIVE, INPATIENT TREATMENT + MONITORING



CORNEAL ABRASION

- DIAGNOSIS CONFIRMED WITH FLUORESCIN STAINING
- ~ 8-13% OF EYE PRESENTATIONS ARE DUE TO CORNEAL ABRASIONS



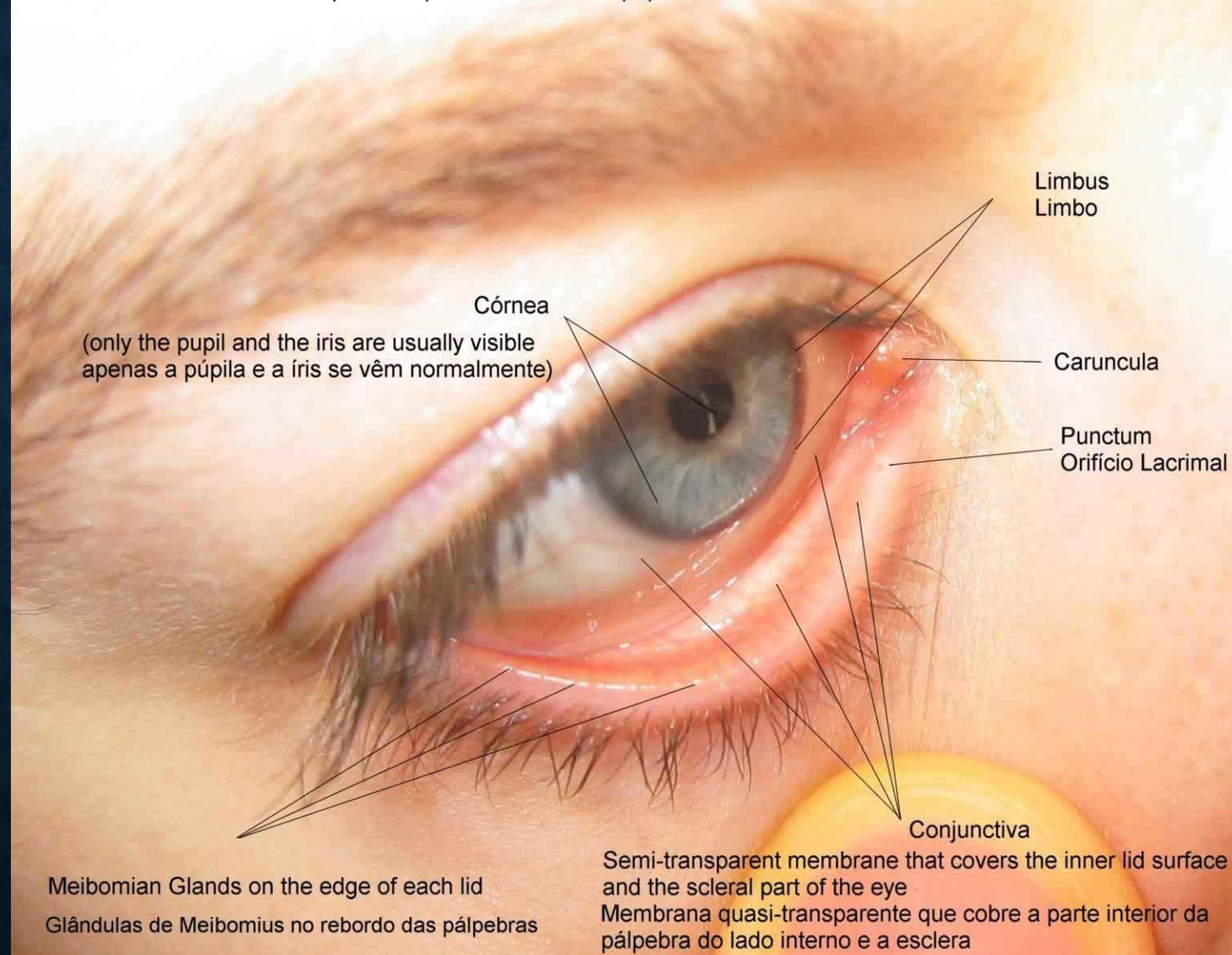
INJURY FROM A BRANCH

Differential Diagnosis of “red eye”

	Conjunctiva	Pupil	Cornea	Anterior Chamber	Intra Ocular Pressure
Subconjunctival hemorrhage	Bright Red	Normal	Normal	Normal	Normal
Conjunctivitis	Injected vessels, Discharge	Normal	Normal	Normal	Normal
Iritis	Injected around cornea	Small fixed irregular pupil	Normal	Turgid Deep	Normal
Acute glaucoma	Entire eye red	Fixed dilated pupil	Hazy	Shallow	High

Keratos 2007

The cornea is the transparent membrane that covers the iris and the pupila
A córnea é a membrana transparente que cobre a íris e a púpila



- “pink eye”, conjunctivitis is the **swelling** or **inflammation** of the conjunctiva, the thin, transparent layer of tissue that lines the inner surface of the eyelid and covers the white part of the eye.
- Causes may or may not be infectious.

PINK EYE (DDX)

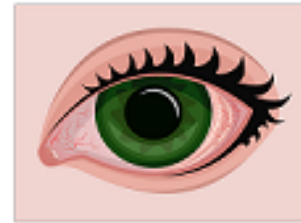
- Dry eyes
- Adult Blepharitis
- Allergic Conjunctivitis
- Chemical Burns
- Contact Lens Complications
- Episcleritis
- Iritis and Uveitis
- Scleritis
- Glaucoma, Angle Closure, Acute
- Subconjunctival hematoma
- Viral Conjunctivitis

CAUSES & RISK FACTORS

- There are three main types of conjunctivitis
 - allergic
 - Infectious
 - Viral
 - bacterial
 - chemical

Types of conjunctivitis

Allergic conjunctivitis



- there is itching and redness of the eye, swelling of the conjunctiva and the eyelid

Viral conjunctivitis



- redness of the eyes and periodic itching, increased lacrimation

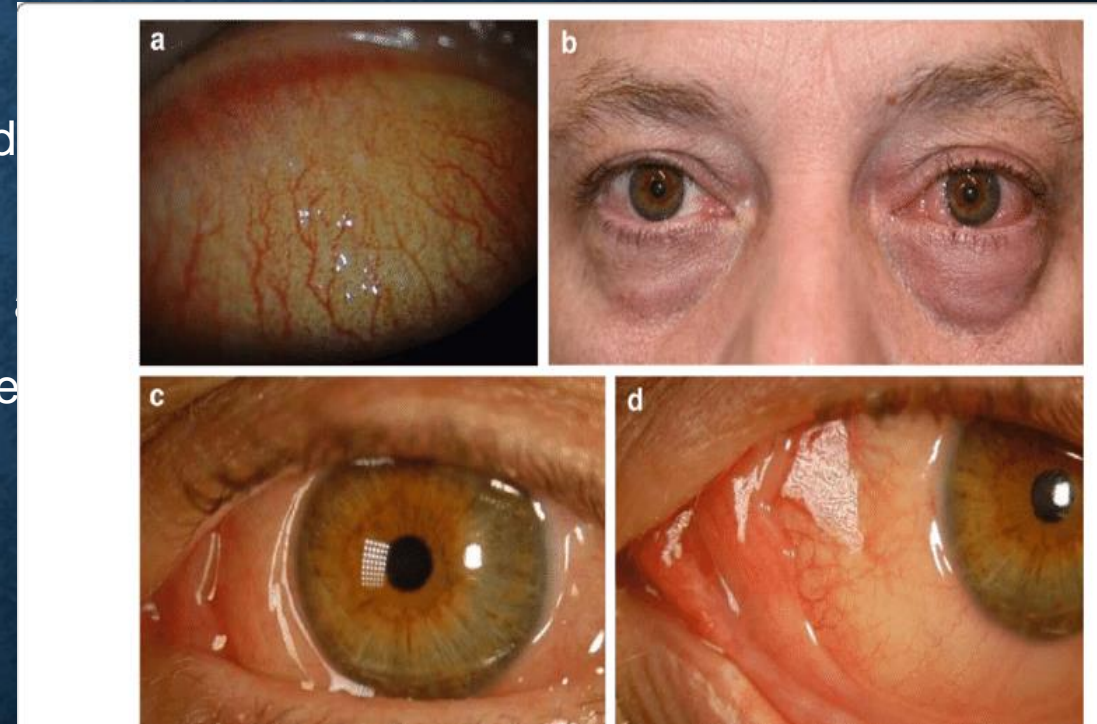
Bacterial conjunctivitis



- redness, dryness of the eyes and the skin around them, mucopurulent discharge

ALLERGIC CONJUNCTIVITIS

- **Allergic conjunctivitis**
 - occurs more commonly among people who already have **seasonal allergies**.
 - They develop it when they come into contact with a substance that triggers an allergic reaction in their eyes.



ALLERGIC CONJUNCTIVITIS

- **Giant papillary conjunctivitis**
 - is a type of allergic conjunctivitis caused by the **chronic** presence of a **foreign body** in the eye. People who wear hard or **rigid contact lenses**, wear **soft contact** lenses that are not replaced frequently, have an **exposed suture** on the surface of the eye or have a **prosthetic** eye are more likely to develop this form of conjunctivitis.



INFECTIOUS CONJUNCTIVITIS

- **Bacterial conjunctivitis**: is an infection most often caused by **staphylococcal** or **streptococcal** bacteria from your own **skin or respiratory** system.
- **Insects**, physical **contact** with other people, **poor hygiene** (touching the eye with unclean hands), or using **contaminated eye makeup** and **facial lotions** can also cause the infection. Sharing makeup and wearing con



INFECTIOUS CONJUNCTIVITIS

- **Viral conjunctivitis** : is most commonly caused by **contagious** viruses associated with the common cold. It can develop through exposure to the **coughing or sneezing** of someone with an upper respiratory tract infection. Viral conjunctivitis can also occur as the virus spreads along the body's **own mucous membranes**, which connect the lungs, throat, nose, tear ducts and conjunctiva. Since the tears drain into the nasal passageway, **forceful nose blowing** can cause a virus **system to your eyes**.



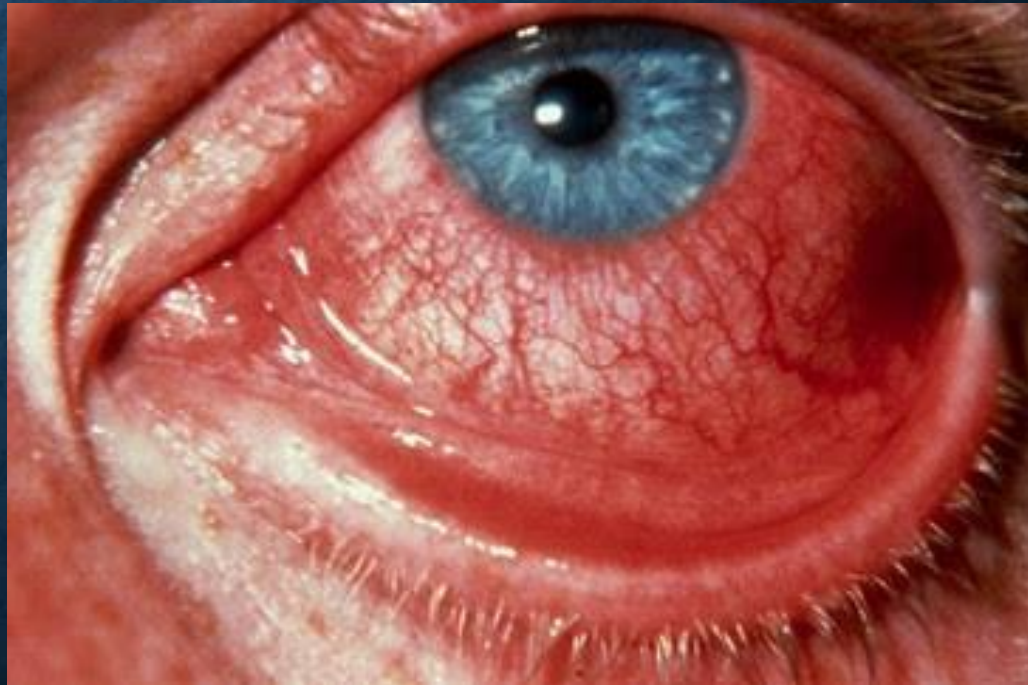
INFECTIOUS CONJUNCTIVITIS

- **Ophthalmia neonatorum** is a severe form of **bacterial** conjunctivitis that occurs in newborn babies. This is a **serious condition** that could lead to permanent eye damage if it is not treated immediately. Ophthalmia neonatorum occurs when an infant is exposed to **chlamydia or gonorrhea** while passing through **the birth canal**. For several years, U.S. delivery rooms have applied antibiotic ointment to babies' eyes as a standard prophylactic treatment.



CHEMICAL CONJUNCTIVITIS

- Chemical Conjunctivitis can be caused by irritants like **air pollution**, **chlorine** in swimming pools, and exposure to noxious chemicals.



SYMPTOMS

- Symptoms vary with the causes discussed above.
- Allergic symptoms include clear, watery discharge along with mild redness. Itching, sometimes severe, may or may not occur.
- bacterial infections, there is typically minimal pain but a possibly dramatic appearance with moderate redness and almost always a yellow/green discharge, sometimes extreme. This discharge can also make the eyelids red and swollen and can attach itself to the eyelashes for a crusty appearance.
- Bacterial infections can be more severe in patients that wear contact lenses. There is also a risk of a bacterial corneal ulcer developing in contact lens wearers which would include severe pain and light sensitivity.
- Viral infections can also cause moderate redness and are usually painful. The pain is typically a sandy, gritty feel like something may be in the eye. There can also be a moderate to severe light sensitivity.

DIAGNOSIS

- Conjunctivitis can be diagnosed through a comprehensive eye examination. Testing, with special emphasis on the conjunctiva and surrounding tissues, may include:
- **Patient history** to determine the symptoms, when the symptoms began, and whether **any general health or environmental** conditions are contributing to the problem.
- **Visual acuity** measurements to determine whether vision has been affected.



DIAGNOSIS

- Evaluation of the conjunctiva and external eye tissue using **bright light and magnification**.
- Evaluation of the **inner structures of the eye** to ensure that no other tissues are affected by the condition.
- Supplemental testing, which may include taking **cultures or smears** of conjunctival tissue. This is particularly important in cases of **chronic conjunctivitis** or when the condition is **not responding** to treatment.
- Using the information obtained from these tests, an Ophthalmologist can confirm if you have conjunctivitis and provide treatment options.



TREATMENT

- Treating conjunctivitis has three main goals:
 1. Increase patient **comfort**.
 2. Reduce or **lessen the course of the infection** or **inflammation**.
 3. **Prevent the spread** of the infection in contagious forms of conjunctivitis.
- The appropriate treatment for conjunctivitis depends on its cause.

Anterior chamber (AC)	Normal	Occasionally creamy fluid level in the anterior chamber (hypopyon)	Cells will be visible with magnification	Shallow or flat
Pupil size	Normal and round	Normal and round	Small and can be irregular	Mid-dilated and oval
Pupil response to light	Active	Active	Minimal reaction as already small	Minimal or no reaction
Intraocular pressure (IOP)	Normal (but do not attempt to measure IOP). NB Risk of infection	Normal (but do not attempt to measure IOP)	Normal or slightly raised	Raised
Photophobia	Slight	Significant	Significant	None
Useful diagnostic sign / test	Discharge in both eyes with clear cornea, normal pupil and normal vision	White spot or mark on the cornea which stains with fluorescein	Small pupil which becomes irregular as it dilates	Very painful eye with poor vision and dilated pupil. Raised IOP and shallow AC

Management of a red eye with no injury

Conjunctivitis	Corneal ulcer	Acute iritis	Acute glaucoma
Treat	Refer	Refer	Refer
Antibiotic ointment x 3/day for 5 days. Advise on hygiene	Hourly antibiotic drops or ointment	Dilate the pupil only if diagnosis is confirmed	Oral diamox 500 mg and pilocarpine drops only if diagnosis is confirmed

ALLERGIC CONJUNCTIVITIS

- The first step is **to remove or avoid the irritant**, if possible. **Cool** compresses and **artificial tears** sometimes relieve discomfort in mild cases. In more severe cases, **nonsteroidal anti-inflammatory** medications and **antihistamines** may be prescribed. People with persistent allergic conjunctivitis may also require **topical steroid** eye drops.
- Oral antihistamines may also be prescribed.



INFECTIOUS CONJUNCTIVITIS

- This type of conjunctivitis is usually treated with **antibiotic** eye drops or ointments.
- **Bacterial** conjunctivitis may improve after **three or four** days of treatment, but patients need to take the **entire course** of antibiotics to **prevent a recurrence**.
- **Viral** conjunctivitis. **No drops or ointments** can treat viral conjunctivitis. Antibiotics will not cure a viral infection. Like a common cold, the virus **has to run its course**, which may take up to **two or three weeks**. Symptoms can often be relieved with **cool compresses** and **artificial tear** solutions. For the worst cases, **topical steroid** drops may be prescribed to reduce the discomfort from inflammation. However, these drops will not shorten the infection. The viral infection Epidemic Keratoconjunctivitis (**EKC**) is **very contagious** and is the red-eye most associated with the term “pink eye”.

CHEMICAL CONJUNCTIVITIS

- Careful **flushing** of the eyes with saline is a standard treatment for chemical conjunctivitis. People with chemical conjunctivitis also may need to use **topical steroids**.
- Severe chemical injuries, particularly **alkali burns**, are **medical emergencies** and can lead to **scarring**, damage to the **eye or the sight**, or **even loss** of the eye. If a chemical spills in your eye, flush the eye for several minutes with a lot of water before seeing your medical provider.
- **Contact lens wearers** may need to temporarily **stop wearing** their lenses while the condition is active. If conjunctivitis is due to wearing contact lenses, you may recommend **switching** to a different type of **contact lens or disinfection** solution. You might need to **change the contact lens** prescription to a lens that is replaced more frequently. This can help prevent conjunctivitis from recurring.

- Practicing **good hygiene** is the best way to control the spread of conjunctivitis.
- Once an infection has been diagnosed, follow these steps:
 - Don't touch your eyes with your hands.
 - Wash your hands thoroughly and frequently.
 - Change your towel and washcloth daily, and don't share them with others.
 - Discard eye cosmetics, particularly mascara.
 - Don't use anyone else's eye cosmetics or personal eye-care items.
 - Follow your eye doctor's instructions on proper contact lens care.

- Soothe the discomfort of **viral or bacterial** conjunctivitis by applying **warm compresses** to your affected eye or eyes.
- To make a compress, soak a clean cloth in warm water and wring it out before applying it gently to your closed eyelids.
- For **allergic conjunctivitis**, **avoid rubbing** the eyes. Instead of warm compresses, use **cool compresses** to soothe your eyes. **Over-the-counter** eye drops might also help. **Antihistamine** eye drops can alleviate the symptoms, and **lubricating eye** drops can rinse the allergen off the surface of the eye.

PREVENTION

- With so many causes, there is no one preventive measure. **Early diagnosis and treatment** will help prevent the condition from becoming worse.
- Avoiding allergy triggers as much as possible also helps.
- Frequent hand washing and keeping hands away from eyes also can make a difference, even when no problems are present.
-

THANKS FOR YOUR ATTENTION

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