

Fanyval Visions  
**EYE DROPS**

Brand Evolution



▶ **FANYMOX**<sup>®</sup>  
(Brand of Moxifloxacin  
ophthalmic drops USP 0.5%, 10ml)



▶ **CYPMAL**<sup>®</sup>  
(brand of Hydroxypropyl Methylcellulose  
ophthalmic drops USP 0.3%, 10ml)



▶ **CRYSOPTIC**<sup>®</sup>  
(brand of Sodium  
Cromoglicate eye drop 2%, 10ml)



▶ **RELIPEN**<sup>®</sup>  
(brand of Diclofenac Sodium  
ophthalmic drop 0.1%, 10ml)



▶ **LEXVAL**<sup>®</sup>  
(brand of Flurbiprofen Sodium  
ophthalmic drops USP 0.03%, 10ml)



▶ **CIPROPTIC**<sup>®</sup>  
(brand of Ciprofloxacin eye/ear  
ophthalmic 0.3% drops, 10ml)



▶ **VATROP**<sup>®</sup>  
(brand of Atropine 1%  
eye drops, 10ml)



▶ **TIMOMED**<sup>®</sup>  
(brand of Timolol 0.5%  
Ophthalmic drops, 10ml)

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*Improving the quality of life, providing good sight to all.*



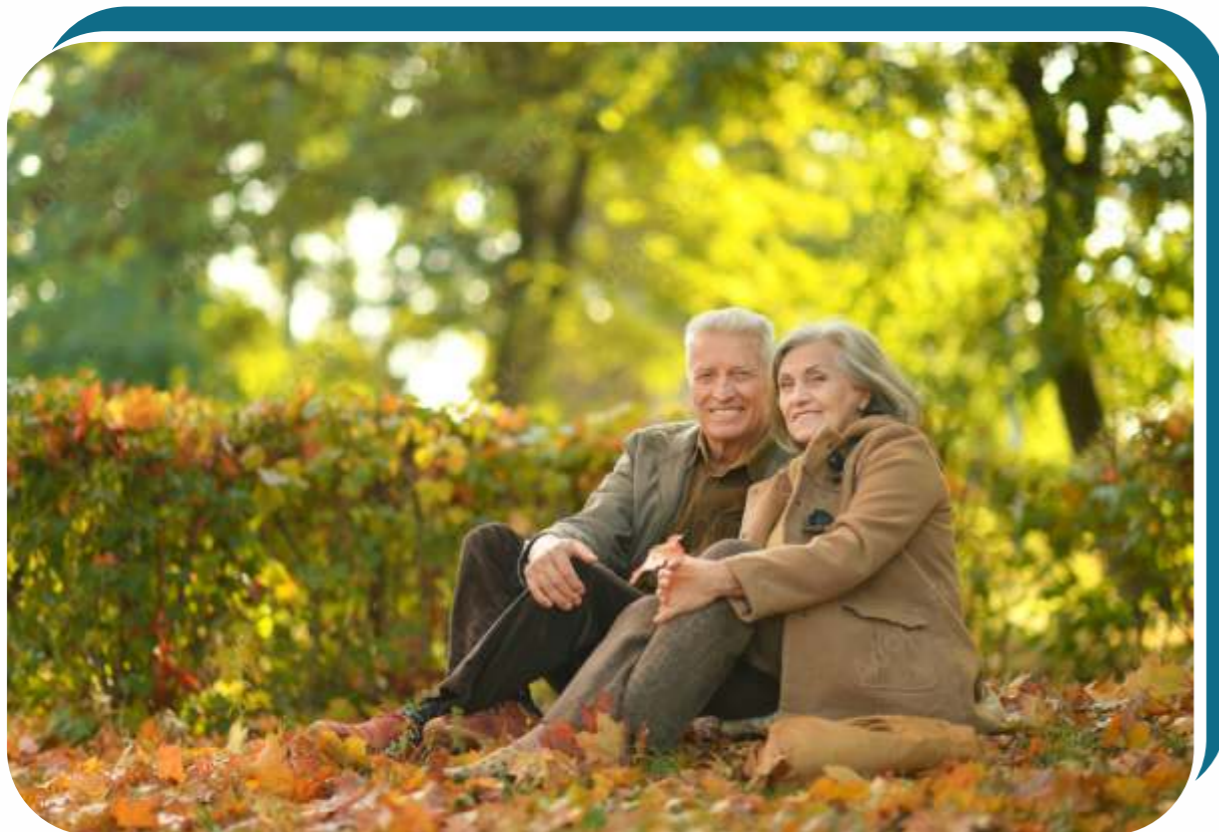
*Fanyval Visions Limited*

LAGOS, NIGERIA.

*Improving the quality of life, providing good sight to all.*



*Fanyval Visions Limited*



### To use eye drops, follow these steps:

1. Wash your hands thoroughly with soap and water.
2. Check the dropper tip to make sure that it is not chipped or cracked.
3. Avoid touching the dropper tip against your eye or anything else; eye drops and droppers must be kept clean.
4. While tilting your head back, pull down the lower lid of your eye with your index finger to form a pocket.
5. Hold the dropper (tip down) with the other hand, as close to the eye as possible without touching it.
6. Brace the remaining fingers of that hand against your face.
7. While looking up, gently squeeze the dropper so that a single drop falls into the pocket made by the lower eyelid. Remove your index finger from the lower eyelid.
8. Close your eye for 2 to 3 minutes and tip your head down as though looking at the floor. Try not to blink or squeeze your eyelids.
9. Place a finger on the tear duct and apply gentle pressure.
10. Wipe any excess liquid from your face with a tissue.
11. If you are to use more than one drop in the same eye, wait at least 5 minutes before instilling the next drop. If your doctor told you to place moxifloxacin ophthalmic solution in both eyes, repeat steps 6 to 10 above for your other eye.
12. Replace and tighten the cap on the dropper bottle. Do not wipe or rinse the dropper tip.
13. Wash your hands to remove any medication.

### What should I do if I forget a dose?

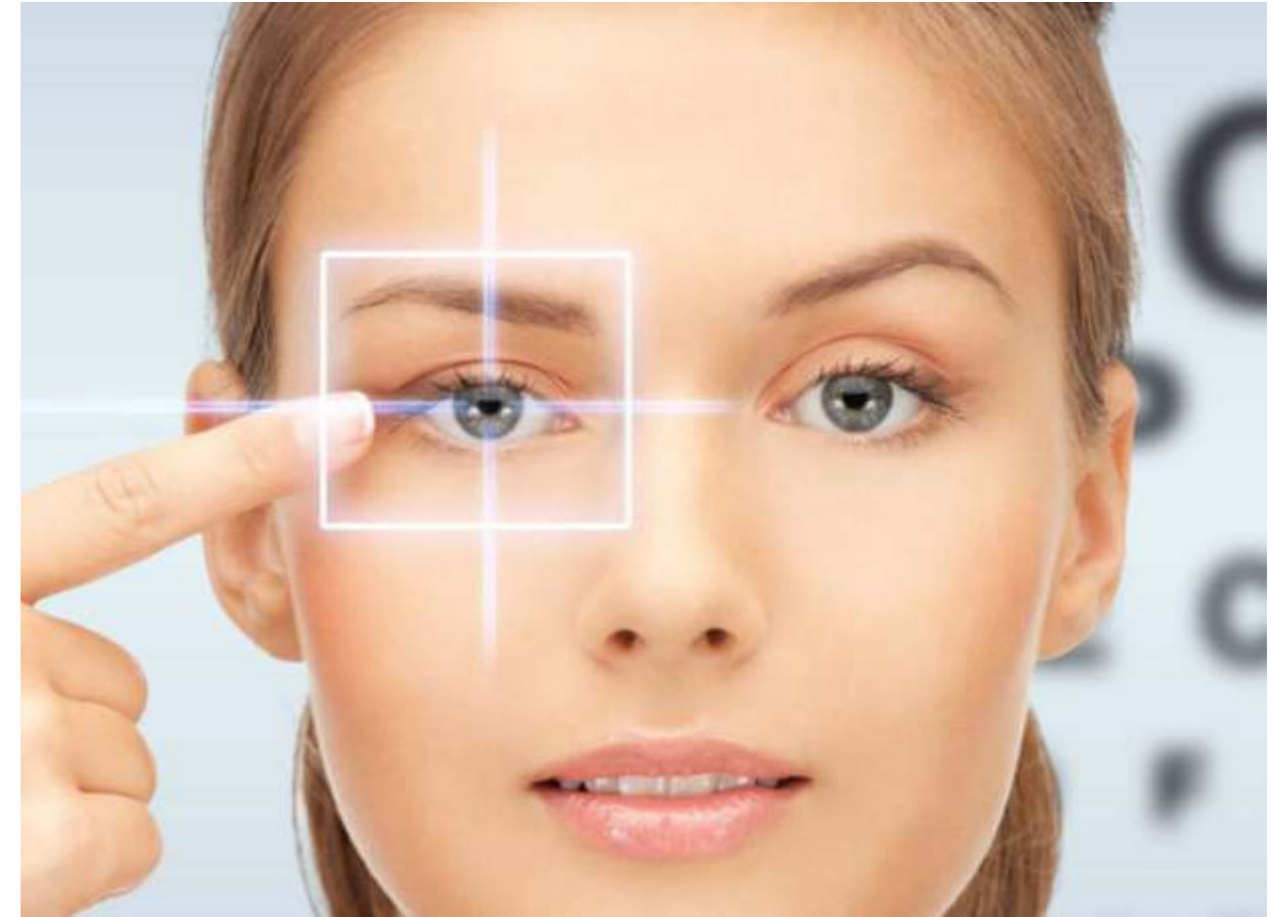
Instill the missed dose as soon as you remember it. However, if it is almost time for the next dose, skip the missed dose and continue your regular dosing schedule. Do not instill a double dose to make up for a missed one.

## Getting the most from your treatment

- Bottles of eye drops only keep for four weeks once the bottle has been opened, so do not use the drops if the bottle has been open for longer than this. This will help to prevent the risk of eye infections.
- Always check the expiry information on the container. As a general rule, avoid use of expired drugs
- Before you start using the eye drops, read the manufacturer's printed information leaflet from the pack. It will give you more information about the eye drops and will provide you with a full list of the side-effects which you may experience from using them.
- Use the drops as directed by a doctor. Try to use the drops at regular intervals and try not to miss any doses. If you need to use the drops for longer than two weeks, you should only do so on the recommendation of a doctor or pharmacist.
- Never 'share' a bottle of eye drops with another person - this can lead to eye infections.
- Take care not to touch the tip of the dropper with your eye, fingers, or any other surface. This is to prevent the drops from becoming contaminated.
- Do not rinse the dropper after use. Replace dropper cap into the bottle of the eye drop after each use.
- When first put in, eye drops can make your eyes water and may sometimes cause blurred vision. If this happens, it should quickly clear. Make sure you can see clearly again before you drive and before you use tools or machines.
- If your symptoms do not start to improve within two days, make an appointment to speak with your doctor.
- If you are using any other eye drops or ointments, leave 5-10 minutes between using each one.
- Do not wear soft contact lenses while you are using most eye drops unless your doctor has advised you otherwise. This is because bottles of eye drops contain preservatives which can affect soft contact lenses. The single-dose units do not contain a preservative.

### **MISSED DOSE:**

If you miss a dose, use it as soon as you remember. If it is near the time of the next dose, skip the missed dose and resume your usual dosing schedule. Do not double the dose to catch up.



**FANYVAL Visions Ltd., is one amongst the foremost indigenous Pharmaceutical companies with specialist interest in Ophthalmic products, services and solutions.**

**Fanyval holds contract manufacturing agreement with reputable world class manufacturers of ophthalmics and devices with requisite global certifications and WHO-GMP.**

**With over 20 products in the basket**

**All products are certified and endorsed by NAFDAC**

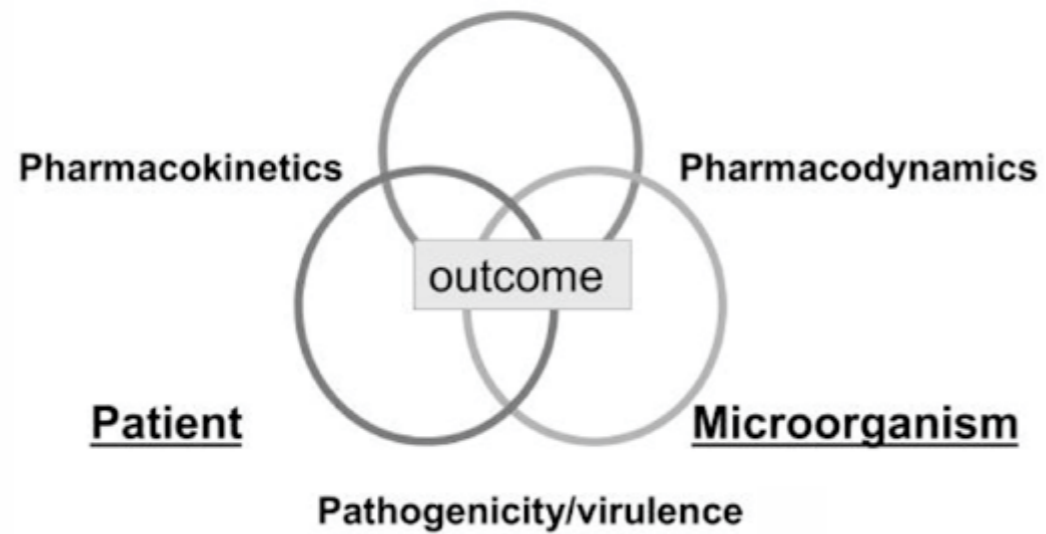


Important considerations when instituting an antimicrobial therapy include obtaining an accurate diagnosis of infection.

An infectious disease diagnosis is reached by determining the site of infection, defining the host (eg, immunocompromised, diabetic, of advanced age), and establishing, when possible, a microbiological diagnosis.

The therapeutic success or potency of an antibacterial agent is a complex interrelationship between drug and its ability to reach the target site (pharmacokinetics), the microbial pathogen and susceptibility to the selective drug (pharmacodynamics), and the underlying immune status of the patient.

### Antimicrobial



Factors affecting favourable outcomes during antimicrobial therapy.

- Pharmacokinetics is the dispersion and metabolism of the drug in the body.
- Pharmacodynamics defines the impact of the antimicrobial agent on the infecting microorganism. It is characterized by the bacterial species, mechanism of microbial resistance, growth phase, infecting inoculum, degree of kill, time kill and MIC distribution
- The third partner in this complex relationship is what both the drug and the pathogen do to the patient. This interplay is described by the patient's age, genetic background, underlying disease and prior antimicrobial exposure.



**CRYSOPTIC**<sup>®</sup>  
(brand of Sodium Cromoglicate eye drop 2%, 10ml)

**Dosage & Duration**  
Instil one drop in both eyes four times daily

Crysoptic, Sodium cromoglicate drop is indicated for the treatment of red, watery, itchy eyes caused by allergies such as hay fever.

Ocular sodium cromoglycate. An overview of its therapeutic efficacy in allergic eye disease  
Sodium cromoglycate stabilizes mast cell membranes and prevents the release of histamine and other biochemical mediators. When topically applied to the eye before allergen exposure, ocular sodium cromoglycate prevents many of the signs and symptoms associated with type I allergic reactions (which includes hayfever, acute allergic and chronic allergic conjunctivitis, and vernal keratoconjunctivitis) and giant papillary conjunctivitis.  
No systemic or severe adverse reactions have been attributed to ocular sodium cromoglycate, which is not surprising since systemic drug absorption from the eye is minimal.

The safety and efficacy of the drug in type I allergic eye diseases is such that it should be considered as a first-line agent when drug therapy of these disorders is indicated.

Sorkin EM, Ward A. *Drugs*. 1986 Feb;31(2):131-48. doi: 10.2165/00003495-198631020-00003.PMID: 3081317 Review

- General Treatment overview**
- . Avoidance of triggering allergens
  - . Cool compresses help relieve symptoms and may lessen inflammation.
  - . Topical therapy with drops that fight both histamine and mast cells, is indicated
  - . Topical corticosteroids are useful for controlling active inflammation, but for their side effects like, fluid retention, dependence and other common complications from steroid therapy.
  - . Oral anti-allergy medications
  - . Crysoptic, a mast cell stabilizer offers more benefit and very suitable



Ocular (eye) inflammation is a component of eye surgery, sometimes leading to its complications, such as macular cystoid edema, and often being targeted by pharmacologic therapy or less invasive surgical procedures.

Ocular inflammation occurs in response to infections, allergies, autoimmune disorders, irritation, injury, or trauma to the eyes, eyelids, or surrounding tissues. Different parts of the eye can be affected, relative to the cause of the inflammation. Eye inflammation is common and can happen at any age.

Symptoms of ocular inflammation includes, Eye redness, Eye pain., Light sensitivity, Blurred vision, Dark, floating spots in your field of vision (floaters), Decreased vision.

Anti-inflammatory agents act against one or more of the mediators that cause inflammation and reduce irritation and swelling in the eyes. Anti-inflammatory ocular drops can be used after surgery to relieve pain.

Nonsteroidal anti-inflammatory drugs (NSAIDs) are increasingly employed in ophthalmology to reduce miosis and inflammation, manage scleritis, and prevent and treat cystoid macular edema associated with cataract surgery. In addition, they may decrease postoperative pain and photophobia associated with refractive surgery and may reduce the itching associated with allergic conjunctivitis

Ophthalmic anti-inflammatory agents are used in the eye to relieve problems during or after some eye surgeries.



Enriching the products mix through addition of more products to the portfolio

Foraying and penetrating deeper to other regional markets

Engaging and focussing on specialist solutions in the Ophthalmology industry

Increasing presence in the emerging markets

Steady improvement of staff skill-sets, attitudes for greater capacity through continuous training and retraining



**Astute management team**

Fanyval Vision Ltd, with a highly motivated and committed team comprising Pharmacists and other key Professionals in the regulatory, marketing and sales areas of the Pharma industry, ranks tall amidst the key players in the industry.

**Marketing and Sales team**

**Regulatory, Research & Development team**

Fanyval's Product range covers areas of clinical significance to the practitioners in Ophthalmology sector as well as for the patients.

With the vast network of routinely trained and highly motivated Medical Representatives across the regions, our products enjoy wide distribution, with high shelf presence in all geopolitical regions of Nigeria and the West African sub-regions.



**RELIPEN<sup>®</sup>**  
 (brand of Diclofenac Sodium ophthalmic drop 0.1%, 10ml)

**Dosage & Duration**

**Following cataract surgery:**

- . Adults—Use 1 drop in the affected eye 4 times a day, starting 24 hours after cataract surgery and continued for 2 weeks after surgery.
- . Children—Use and dose must be determined by your doctor.

**For corneal refractive surgery:**

- . Adults—Use 1 or 2 drops in the affected eye within 1 hour before corneal surgery. Then, use 1 or 2 drops in the affected eye within 15 minutes after corneal surgery and continued 4 times a day for up to 3 days.
- . Children—Use and dose must be determined by your doctor.

NSAIDs are approved by the FDA to prevent intraoperative miosis during cataract surgery, reduce postoperative inflammation following cataract surgery, and control symptoms of allergic conjunctivitis and pain following refractive surgery. In addition, they have been shown to be effective in preventing cystoid macular edema following cataract surgery or treating cystoid macular edema once it occurs.

Relipen, diclofenac ophthalmic solution, a Non-steroidal anti-inflammatory agents, NSAIDs, is a potent inhibitor of prostaglandin synthesis; therefore, have been found to have many useful roles in ophthalmology.

Relipen, ophthalmic diclofenac, a non-steroidal anti-inflammatory drugs (NSAIDs). Indications includes;

- Short-term use to relieve post-operative pain and inflammation (cataract surgery and laser surgery).
- During eye surgery, to prevent the narrowing of the pupil of the eye
- To relieve ocular symptoms of seasonal allergies such as hay-fever

....patients.info/medicine/diclofenac-eye-drops-voltarol-ophta



Review of moxifloxacin hydrochloride ophthalmic solution in the treatment of bacterial eye infections show a bactericidal activity on most clinically sensitive gram positive and gram negative ocular pathogens.

Fanymox shows increased penetration into ocular tissues and fluids with improved activity against Streptococci and Staphylococci species and moderate to excellent activity against clinically relevant, gram-negative ocular pathogens.

Fanymox, Moxifloxacin ocular solution is a broad spectrum, bactericidal, concentration dependent, anti-infective. It interferes with bacterial survival by binding to DNA gyrase (topoisomerase II) and topoisomerase IV, essential bacterial enzymes involved in the replication, translation, repair and recombination of deoxyribonucleic acid. DNA gyrase is encoded by the genes *gyrA* and *gyrB*, while topoisomerase IV is encoded by *ParC* (*grlA*) and *pare* (*grlB*). Inhibition of either enzyme leads to bacteria death (1)

(1) (Zhanel and Noreddin 2001; Hwang 2004; Mah 2004; Van Bambeke et al 2005).



It can affect people of all ages, It is most likely to affect Whites after the age of 60 but Blacks and Hispanics after the age of 40.

Glaucoma requires lifelong management for best results. It is not curable. Vision already lost cannot be restored. However, further sight loss can be prevented via medication or surgery.

**Glaucoma is about the third highest cause of blindness worldwide...sightsavers.org**

There are many ways to classify glaucoma, but there are generally four categories or types of glaucoma. The four types are Primary Open Angle Glaucoma, Angle Closure Glaucoma, Normal Tension Glaucoma, and Secondary Glaucoma.

Primary glaucomas... When there is no other cause, it's called primary glaucoma (Open-angle, Normal-tension, Angle-closure, Congenital glaucomas)

Secondary glaucomas... Sometimes glaucoma is caused by other medical conditions— this is called secondary glaucoma (Neovascular, Pigmentary, Exfoliation, Uveitic glaucomas)

#### PRIMARY GLAUCOMAS

**Open-angle glaucoma...**Treatments: Medicines, laser treatment, surgery

**Normal-tension glaucoma...**Treatments: Medicines, laser treatment, surgery

**Angle-closure glaucoma...**Treatments: Medicines, laser treatment

**Congenital glaucoma...**Treatments: Medicines, surgery

#### SECONDARY GLAUCOMAS

Neovascular glaucoma...Treatments: Medicines, laser treatment, surgery

Pigmentary glaucoma...Treatments: Medicines, laser treatment, surgery

Exfoliation glaucoma...Treatments: Medicines, laser treatment, surgery

Uveitic glaucoma...Treatments: Medicines, surgery

#### Other causes

Rarely, other medical conditions like cataracts and tumours can cause glaucoma. Eye injuries can also cause glaucoma



Ocular allergy is an inflammatory reaction of the surface of the eye to particles (allergens) in the environment. It is quite common and affects people of all ages. Inflammation can be asymptomatic, or cause dramatic symptoms, and in severe cases, severe loss of vision.

There are five types of ocular allergy.

- Seasonal allergic conjunctivitis, or hay fever conjunctivitis, occurs during certain seasons when environmental allergens are more plentiful.
- Perennial allergic conjunctivitis is similar, but is year long.
- Giant papillary conjunctivitis (GPC) is the result of particles that adhere to contact lenses that cause large mounds of inflammatory cells to accumulate under the inner eyelid surface.
- Vernal keratoconjunctivitis (VKC) is a severe form, usually occurring in younger patients in warm climates, which often causes thick, stringy mucous secretions and severe redness and itching.
- Atopic keratoconjunctivitis (AKC) is also severe, with pronounced allergic symptoms, and is associated with systemic allergy and atopy. The last two are potentially blinding diseases.

Symptoms of ocular allergies includes....Redness, Itching, Light sensitivity, Tearing, Burning, Eyelid swelling, Swelling of the conjunctiva, Decrease in vision, Runny nose or sneezing....[mersi.com/services/what-we-treat/ocular-allergy/](http://mersi.com/services/what-we-treat/ocular-allergy/)  
As above, sometimes ocular allergy can be asymptomatic, or more likely unrealized, finally seen on examination by the ophthalmologist.

The role of the mast cell in ocular allergy is becoming understood. As a result, the therapeutic effects of agents that stabilize the mast cell have been evaluated in the treatment of seasonal allergic conjunctivitis, vernal keratoconjunctivitis, atopic keratoconjunctivitis, and giant papillary conjunctivitis. At present, cromolyn sodium is the only available mast cell stabilizer of known effectiveness.

Clinical and laboratory investigations of the effectiveness of cromolyn sodium in the treatment of ocular allergy have been reviewed.....Allansmith MR, Ross RN.Surv Ophthalmol. 1986 Jan-Feb;30(4):229-44. doi: 10.1016/0039-6257(86)90119-0.PMID: 3082025 Review.



**Infections are detrimental to eye health.**

The eyes are very sensitive to infections and symptoms depends on the part of the eye affected. The Eyelid, Cornea or the Conjunctiva.

Symptoms of eye infections may include, itchy eyes, pink eye, discharge, pain or discomfort, sandy feeling in the eyes, sensitivity to light, burning sensation or irritations in the eyes, tender eyelid, small painful lump under the eyelid or at the base of the eye lashes, etc.

**(Key benefits of Product)**  
Bacterial Eye infection is a clear indication for a suitable ophthalmic antibiotic.





**TIMOMED®**  
(brand of Timolol 0.5%  
Ophthalmic drops, 10ml)

#### Dosage & Duration

Instil one drop twice daily

**TIMOMED**, Ophthalmic timolol is a beta-blocker, used to treat open angle glaucoma, and other eye diseases like ocular hypertension. Timomed works by Lowering high intraocular pressure, by reducing the amount of fluid within the eye, thereby prevents blindness.

Timomed, Timolol eye drop is instilled once or twice daily, at evenly spaced intervals, until pressure in the eye is controlled (about 4 weeks). Then it may be instilled once a day.



**FANYMOX®**  
(Brand of Moxifloxacin  
ophthalmic drops USP 0.5%, 10ml)

#### Dosage & Duration

Instil one drop to the eyes three times a day for 7 days.  
Age related dosage considerations are given in paediatric cases for children below 4months of age

Fanymox, Moxifloxacin is an antibiotic, a new generation fluoroquinolone. It is safe and effective for use in neonates and infants as well as other age groups. It is bactericidal in activity?

#### Why is Fanymox prescribed?

Fanymox, Moxifloxacin ophthalmic solution is indicated for the treatment of bacterial eye infections including bacterial conjunctivitis (pink eye)

Fanymox ophthalmic drop gives fast onset of action as application is on the site of infection. Symptom improvement occurs within a couple days. Most cases experience reduction, clearance of bacterial load and complete remission of symptoms within 4 days of treatment (1).

Moxifloxacin Ophthalmic Solution, 0.5% and Ciprofloxacin Ophthalmic Solution, 0.3% are safe and effective in patients under one month of age for the treatment of bacterial conjunctivitis.(2)

(1) <https://medlineplus.gov/druginfo/meds/a605016.html>

(2) © 2003, The Association for Research in Vision and Ophthalmology, Inc., all rights reserved.



# CIPROPTIC®

(brand of Ciprofloxacin eye/ear ophthalmic 0.3% drops, 10ml)

### Dosage & Duration

**For bacterial conjunctivitis:**  
 Adults and children—Instil 1 or 2 drops in the affected eye every 2 hours, while awake, for 2 days. Then, 1 or 2 drops in the affected eye every 4 hours, for the next 5 days.

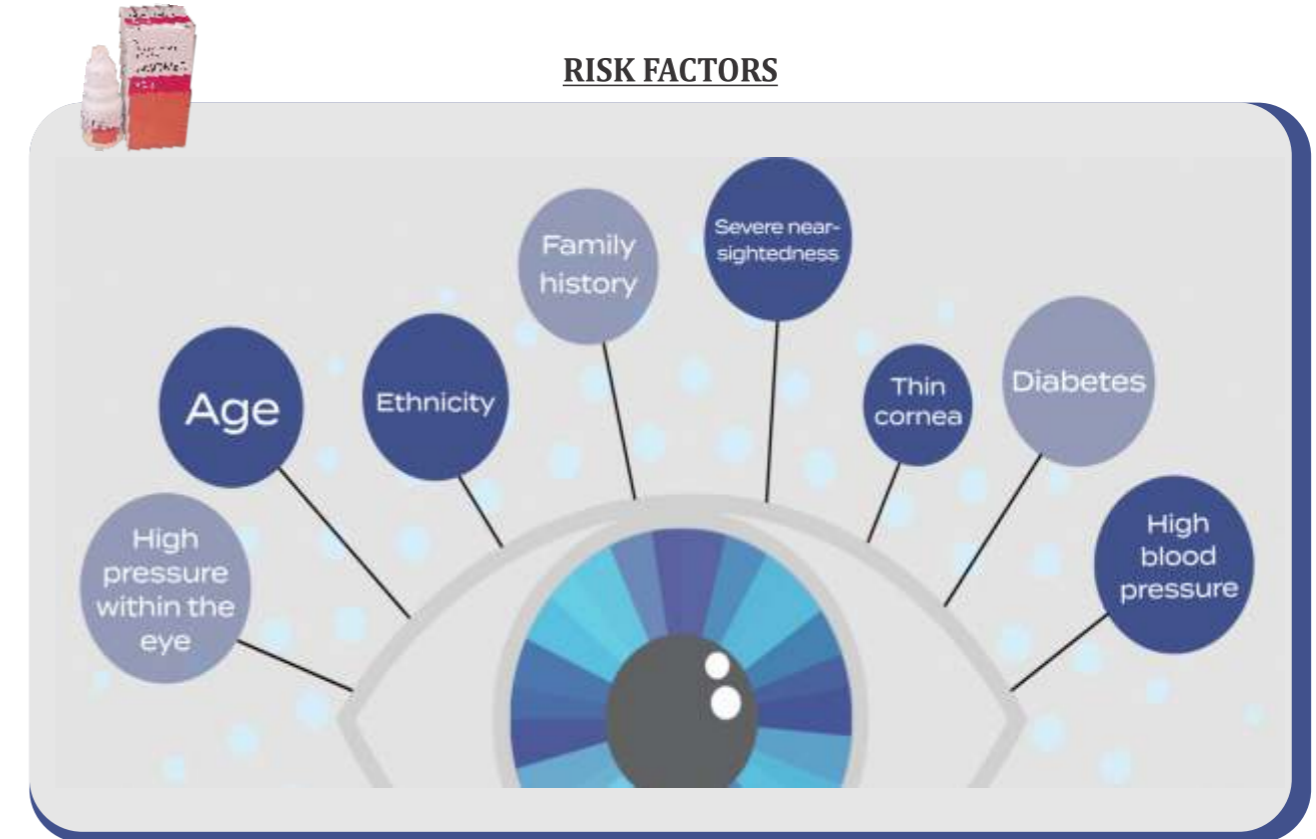
**For corneal ulcers:**  
 Adults and children—  
 . Day 1: Instil 2 drops in the affected eye every 15 minutes for the first 6 hours, and then 2 drops in the affected eye every 30 minutes for the rest of the day, while awake.  
 . Day 2: Instil 2 drops in the affected eye every hour, while awake.  
 . Days 3 through 14: Instil 2 drops in the affected eye every 4 hours, while awake.

Ciprofloxacin is a broad spectrum fluoroquinolone antibacterial agent, with good tissue penetration and bactericidal effect on susceptible gram positive and gram negative bacteria.

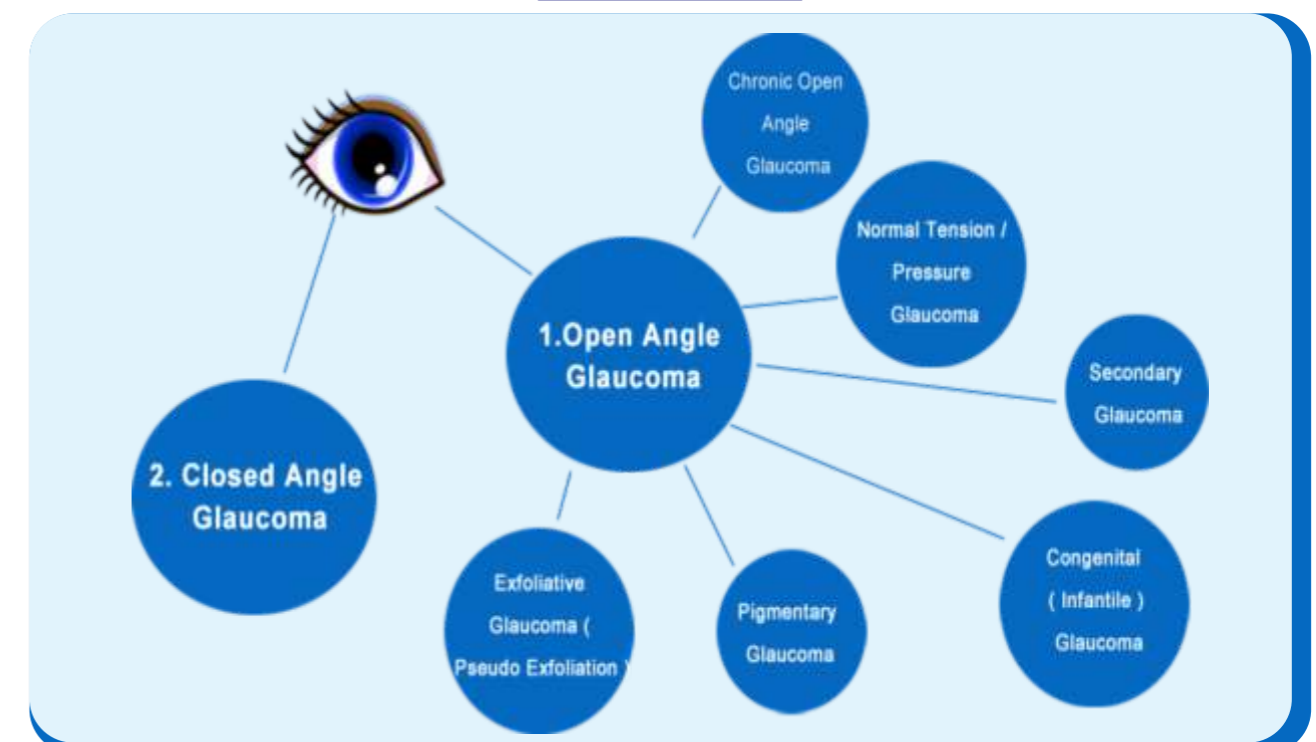
From studies, the safety and effectiveness of Ciprofloxacin Eye Drops were determined in 230 children between the ages of 0 and 12 years of age. No serious adverse drug reaction was reported in this group of patients...[medicines.org.uk/emc/products/836/smpc/#gref](http://medicines.org.uk/emc/products/836/smpc/#gref).

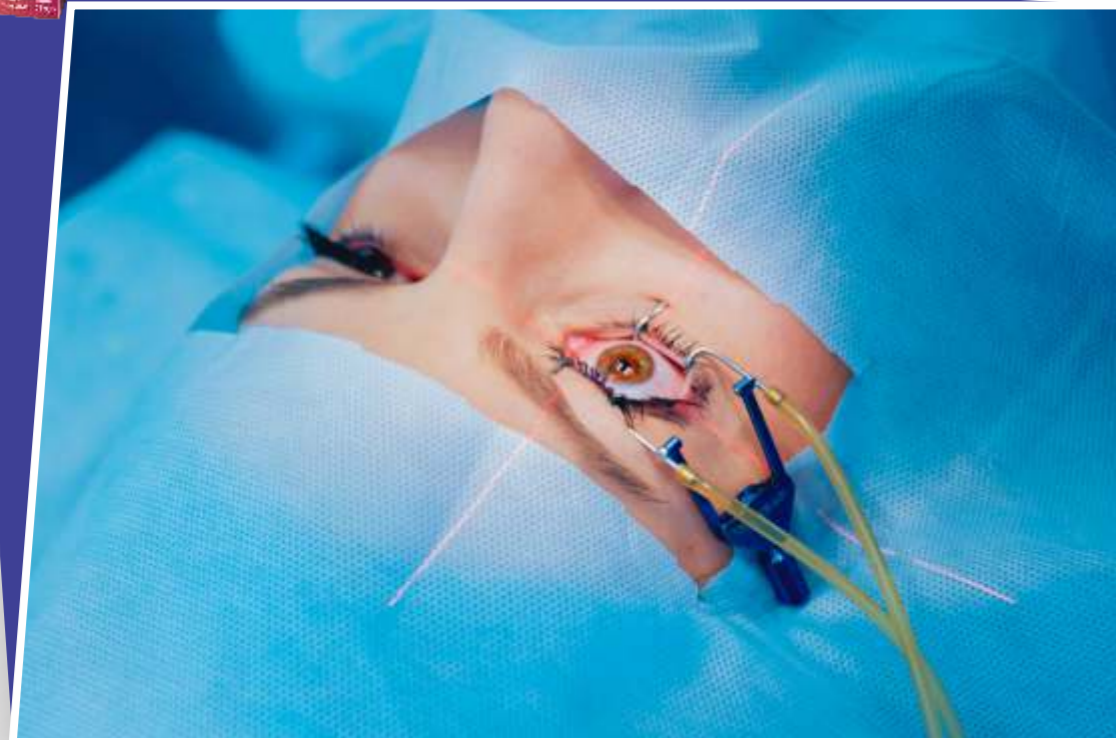
Ciproptic, ciprofloxacin eye drops is indicated for bacterial infections of the eye, such as bacterial conjunctivitis.  
 Ciprofloxacin eye drops is also used to treat corneal ulcers of the eye as well useful in treatment of ear infections.  
 Ciproptic ophthalmic drop is safe for use in infections of the ear

### RISK FACTORS



### CLASSIFICATIONS





### Benefits of non-steroidal anti-inflammatory drugs, NSAIDs.

Non-steroidal anti-inflammatory drugs (NSAIDs) are increasingly employed in ophthalmology to reduce miosis and inflammation, manage scleritis, and prevent and treat cystoid macular edema associated with cataract surgery. In addition, they may decrease postoperative pain and photophobia associated with refractive surgery and may reduce the itching associated with allergic conjunctivitis.

Lexval, Flurbiprofen ophthalmic solution, a propionic acid derivative, is a topical Non-steroidal Anti-Inflammatory Drug (NSAID). It is effective to keep the pupils of the eyes from getting smaller (intraoperative miosis) during an eye surgery, it prevents or reduces changes in the eye that may occur during eye surgery, like during cataract removal. It makes the examination of the inner parts of the eyes easier.



**LEXVAL**<sup>®</sup>  
(brand of Flurbiprofen Sodium  
ophthalmic drops USP 0.03%, 10ml)

### Dosage & Duration

#### Prophylaxis of Intraoperative Miosis

1 gtt in eye(s) q30min beginning 2 hr before surgery (total 4 gtt per affected eye)

General use: . Use one drop four times daily, unless you have been told otherwise by your doctor.

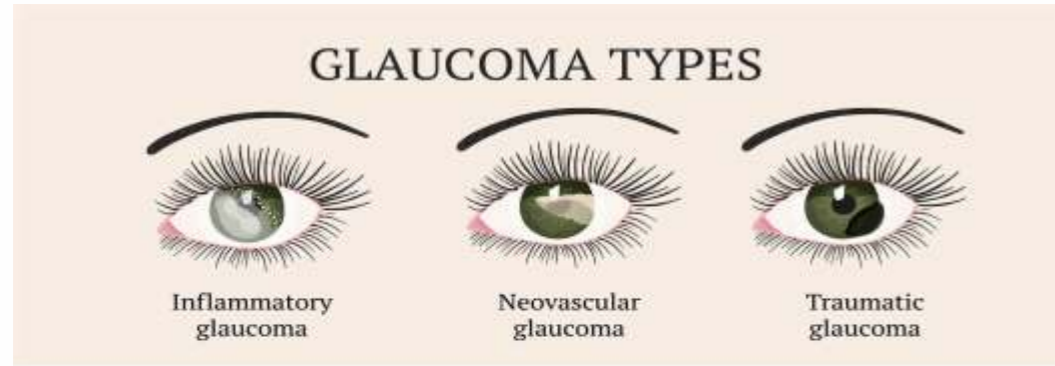
LEXVAL, flurbiprofen ophthalmic solution is a potent inhibitor of cyclooxygenase and prostaglandin synthesis. These effects reduce inflammation, inhibit platelet aggregation (prevent blood clots), and reduce pain in the eyes.

LEXVAL, Flurbiprofen works by inhibition of the body's production and release of mediators of pain and inflammation, prostaglandins (natural responsible for pain, inflammation and fever).

### Uses of Lexval...

- Prevent eye pupil constriction from eye surgery
- Blepharoconjunctivitis, an inflammatory disorder of the eyes
- Post-operative pain management
- Decrease photophobia, eyes sensitivity to light

**Dosage:** It is usually instilled in the eye(s) undergoing surgery every 30 minutes beginning 2 hours before surgery for a total of four doses. Use flurbiprofen ophthalmic exactly as directed. Do not take more or less of it or take it more often than prescribed by your doctor.

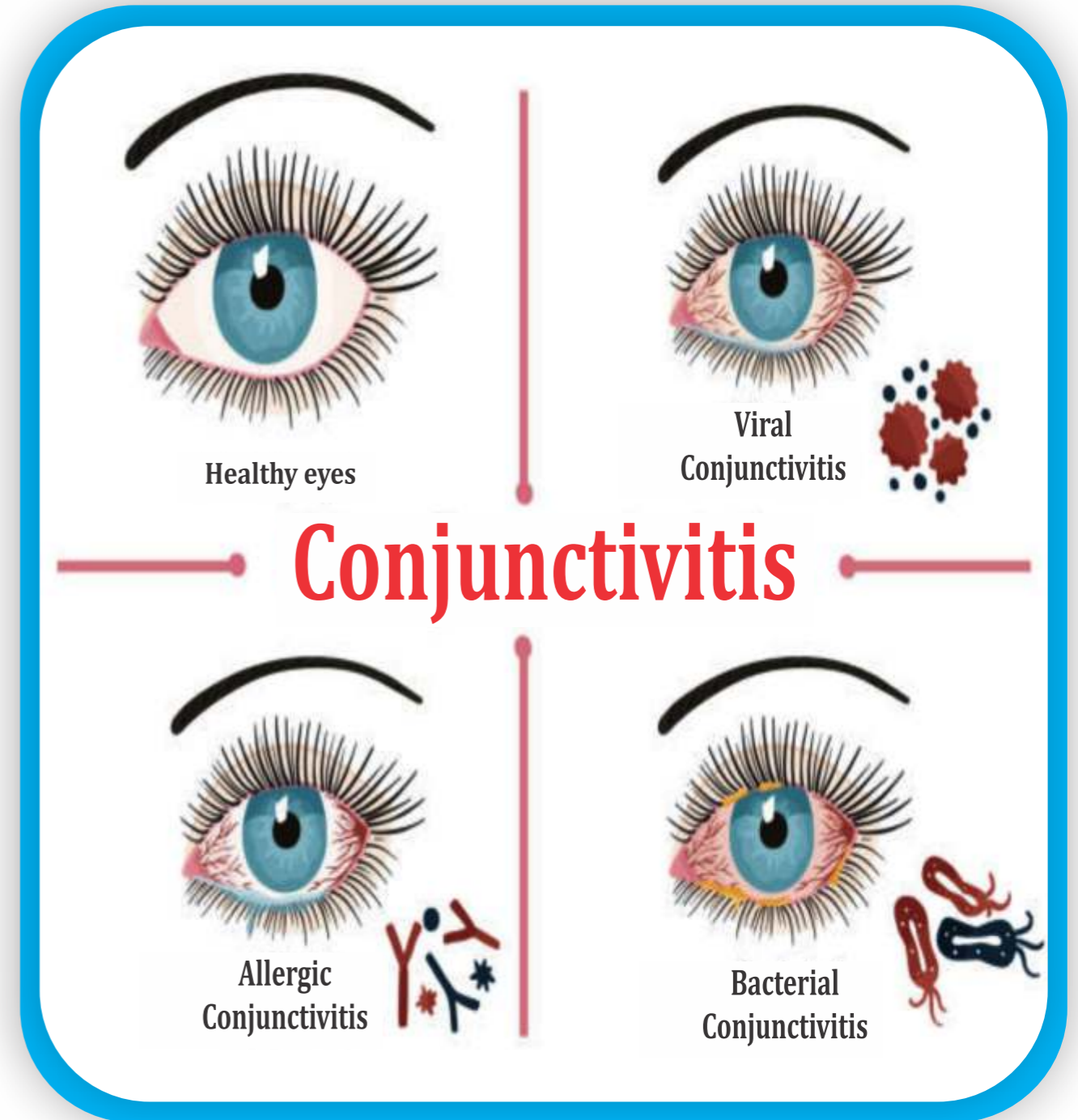


Inflammatory glaucoma

Neovascular glaucoma

Traumatic glaucoma

### HEALTHY EYES



Healthy eyes

Viral Conjunctivitis

Allergic Conjunctivitis

Bacterial Conjunctivitis

#### At a glance: Glaucoma

- **Early Symptoms:** Often none
- **Later Symptoms:** Loss of side (peripheral) vision, blind spots, blindness
- **Diagnosis:** Dilated eye exam with visual field testing
- **Treatment:** Medicine (usually eye drops), laser treatment, surgery

Without access to eye health services and regular screening every two years, early signs of the disease can be missed leading to permanent visual impairment and blindness. Untreated, this can happen within 10 to 20 years.

**Early detection and treatment of Glaucoma is very critical.**

**Increased intraocular pressure if undetected and untreated leads to the damage of the optic nerve and consequently, irreversible blindness.**

**. Glaucoma is one of the diseases of the eyes that leads to irreversible blindness**

Glaucoma can be difficult to diagnose because symptoms develop slowly over many years.

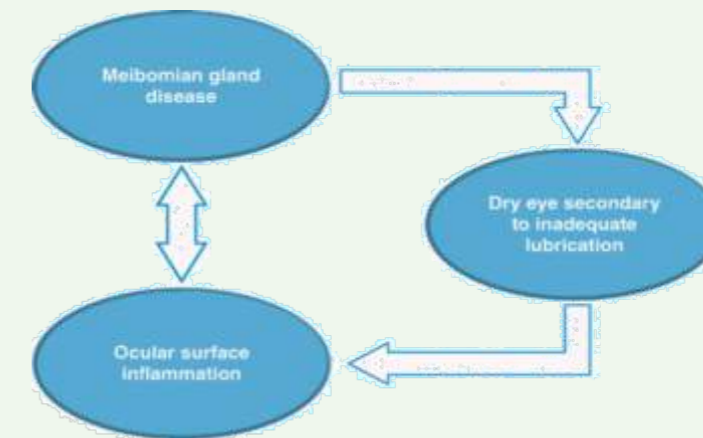
Due to lack of early signs, many patients seek treatment when they start noticing loss of sight, as symptoms may delay until the later stages of the disease, when severe damage to the optic nerve has already occurred, causing blind spots and vision loss.

Specific causes of Glaucoma are not clearly known but certain risk factors such as age, family history, racial background and other medical conditions such as diabetes and short-sightedness can increase the risk.



## ▶ CYPMAL®

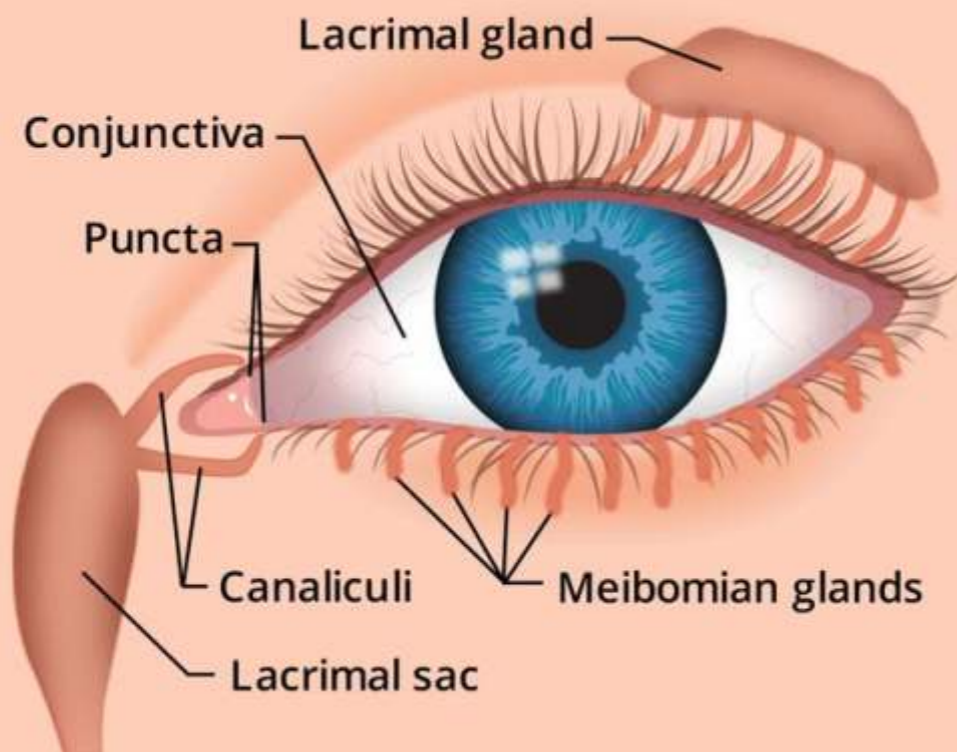
(brand of Hydroxypropyl Methylcellulose, Hypromellose, ophthalmic drops USP 0.3%, 10ml)



### Dosage & Duration

Instil one drop 3 to 4 times daily or as often as required

Cypmal, Hydroxypropyl methylcellulose, classified as artificial tears, is indicated to relieve dryness and irritation caused by reduced tear flow, thereby helps prevent injury and infection to the eye by its lubricant efficacy through moisture addition to the eyes.



Dry eyes can become red and irritated, causing a feeling of scratchiness.



**VATROP®**  
(brand of Atropine 1% eye drops, 10ml)

VATROP, Atropine ophthalmic preparation is an anticholinergic agent.

#### Dosage & Duration

##### Adults

Refraction:- One or two drops to be instilled into the eye(s) one hour before refracting.  
Uveitis / iritis:- One or two drops to be instilled into the eye(s) to a maximum of 4 times daily.

##### Elderly

Mydriatics and cycloplegics should only be used with caution in the elderly and others who may have raised intra ocular pressure

##### Children

Refraction:- One drop to be instilled into each eye twice daily for 1 - 3 days prior to the examination.  
Uveitis / iritis:- One drop to be instilled into each eye to a maximum of 3 times daily.

##### Mydriasis/Cycloplegia

1-2 gtt solution, cycloplegia 1 hour before refraction & mydriasis 7-14 days

##### Uveitis

1-2 gtt up to four times daily

VATROP, Atropine eye drop belongs to the drug class, Mydriatics.

It is indicated for dilation of the pupil prior to eye examination or other diagnostic procedures, such as in refraction. It is also used to treat other eye conditions like, Uveitis, Amblyopia (lazy eyes) and other eye conditions like, Cycloplegia.

Topical ophthalmic drops of atropine induces mydriasis by inhibiting contraction of the circular pupillary sphincter muscle normally stimulated by acetylcholine. This inhibition allows the countering radial pupillary dilator muscle to contract which results in dilation of the pupil.

Atropine causes the muscles in your eye to become relaxed. This widens (dilates) the pupil so that it will not respond to light. Atropine ophthalmic is used to dilate the pupils in inflammatory condition or in postsurgery situations in which this effect may be helpful.<sup>2</sup>

Dry eyes, Keratoconjunctivitis sicca and dysfunctional tear syndrome, Lacrymal keratoconjunctivitis are types of dry eyes, occurs when the eyes are unable to produce adequate aqueous fluid to lubricate and moisturize the eyes.

Signs and symptoms include: a stinging, burning or scratchy sensation in your eyes, sensitivity to light, redness, sensations, irritations, inflammation, difficulty with night driving, scarring of the eyes, blurred vision or eye fatigue. If untreated, it can lead to eye infection.

Need to lubricate the eyes..... Eye lubricants moistens the eyes, protects the eye from injury and infection, clears symptoms of dryness such as pain or redness, burning, itching, heavy eyelids, sandy or gritty feeling in the eyes, eye fatigue, inability to cry, sensitivity to light .

Article References [1] Javadi, M. A., & Feizi, S. (2011). Dry eye syndrome. Journal of ophthalmic & vision research, 6(3), 192-198. [2] Lee, M. H., Sarossy, M. G., & Zamir, E. (2015). Vitamin A Deficiency Presenting with 'Itchy Eyes'. Case reports in ophthalmology, 6(3), 427-434. doi:10.1159/000441969 [3] Messmer E. M. (2015). The pathophysiology, diagnosis, and treatment of dry eye disease. Deutsches Arzteblatt international, 112(5), 71-82. doi:10.3238/arztebl.2015.0071