Irritated and Dry Eyes

Disclaimer

COVID-19 note

The Royal Australian and New Zealand College of Ophthalmologists (RANZCO) and The Royal Australian College of General Practitioners (RACGP) have made recommendations regarding eye examination during the COVID-19 pandemic. See RANZCO – COVID-19: Practical Guidance for General Practitioners Performing Eye Examinations.

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Background – About Irritated and Dry Eyes

- "Dry eye" is a term often used to group together multiple causes of mild, chronic eye irritation, such as blepharitis. These cause similar symptoms of gritty, dry irritation, and are helped temporarily by lubricant drops.
- Irritated and dry eyes are extremely common.

Assessment

1. Ask about:
   - **symptoms**

   May be described as:
   
   o gritty, sharp, momentary pain.
   o scratching or burning.
   o feeling like a foreign body is present under the lid or behind the eye.
   o excessive tearing especially when exposed to wind or air conditioning.
   o brief intense symptoms or symptoms for months.

   - contact lens use.

2. Ask if drops have already been tried, how often they were used, and if they were helpful.

3. Perform examination:
   - Check **visual acuity**

   **Visual acuity**
   Measuring visual acuity:
   
   1. Ask if the patient has distance glasses with them, and if either eye has had known poor vision i.e., a lazy eye.
   2. Test their distance vision in each eye, while wearing glasses, using a 3 or 4 metre chart.
   3. Check each eye separately, with distance glasses if worn. If acuity is subnormal, check with a pinhole.
   4. If vision improves with a pinhole and no cataract is present, then the patient requires a review of their glasses.
   5. Near vision – test while patient is wearing reading glasses.
   6. Corneal ulcers usually reduce vision, while abrasions usually leave vision intact.

   - Examine the **cornea**

   **Examine the cornea**
   
   o Instil fluorescein and examine with blue light.
   o Fine dots may be seen in the inferior cornea, with no other defect present.

   - Examine eyelids for VII nerve palsy (lagophthalmos, incomplete closure of eyelids causing exposure of inferior sclera or cornea), or marked **ectropion**.

4. Consider common causes:
   
   - Idiopathic – most common
   - **Blepharitis**
Management

1. If cause can be identified, manage accordingly:
   - Blepharitis
   - Ectropion
   - Conjunctivitis
   - Keratoconjunctivitis sicca

2. If patient is not using **lubricant drops, gel, or ointment** regularly, start using 4 times a day. Warn the patient not to use decongestant drops, as these dry the eyes.

**Lubricant drops, gels, or ointments**
- There are many types available, but no evidence that any is superior to another.
- Preservative-free products are preferred, as preservatives can irritate an already dry eye. Benzalkonium chloride is the most frequently used preservative and the worst irritant.
- Ointment preparations are particularly useful at night or for patients with poor vision as blurred vision for a period of time can be tolerated.
- Gels provide longer relief than drops, and blur vision less than ointments.

**Lubricants in common brands**

<table>
<thead>
<tr>
<th>Lubricant</th>
<th>Brands (preservative-free)</th>
<th>Brands (with preservative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carmellose sodium</td>
<td>• Optifresh Plus (PBS)</td>
<td>• Refresh Plus</td>
</tr>
<tr>
<td></td>
<td>• Optifresh Tears (PBS)</td>
<td>• Refresh Tears Plus (PBS)</td>
</tr>
<tr>
<td></td>
<td>• Celluvisc (PBS)</td>
<td>• Refresh Liquigel (PBS)</td>
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<tr>
<td></td>
<td>• Cellufresh1 (PBS)</td>
<td>• Refresh Contacts</td>
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<tr>
<td></td>
<td>• TheraTears</td>
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<tr>
<td>Carbomer-974</td>
<td></td>
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</tr>
<tr>
<td>Carbomer-980</td>
<td>• Optifresh Eye (PBS)</td>
<td>• Poly-Tears (PBS)</td>
</tr>
<tr>
<td></td>
<td>• PAA (PBS)</td>
<td>• Tears Naturale (PBS)</td>
</tr>
<tr>
<td>Carmellose sodium with glycerol</td>
<td>Optive Sensitive</td>
<td>Optive Lubricant Eye Drops</td>
</tr>
<tr>
<td>Dextran-70 with hypromellose</td>
<td>Bion Tears (PBS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Poly-Tears (PBS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Tears Naturale (PBS)</td>
<td></td>
</tr>
<tr>
<td>Paraffin (ointment type)</td>
<td>• Refresh Night Time (PBS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Poly Visc (PBS), Ircal (PBS)</td>
<td></td>
</tr>
<tr>
<td>Polyvinyl alcohol</td>
<td>• PVA Tears (PBS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Liquifilm Tears (PBS)</td>
<td></td>
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<td></td>
<td>• Vistil</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Vistil Forte</td>
<td></td>
</tr>
<tr>
<td>Polyvinyl alcohol with povidone</td>
<td></td>
<td>Refresh Eye Drops (PBS)</td>
</tr>
</tbody>
</table>
### South Eastern Melbourne PHN Irritated and Dry Eyes pathway

<table>
<thead>
<tr>
<th>Polyethylene glycol-400 with propylene glycol</th>
<th>Systane Eye Drops (PBS)</th>
<th>Systane Ultra Eye Drops</th>
<th>Systane Gel Drops</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypromellose</td>
<td></td>
<td></td>
<td>Methopt (PBS)</td>
</tr>
<tr>
<td>Hypromellose with carbomer-980</td>
<td></td>
<td></td>
<td>Genteal (PBS)</td>
</tr>
<tr>
<td>Sodium hyaluronate</td>
<td></td>
<td></td>
<td>HPMC PAA, (PBS) Genteal Gel (PBS)</td>
</tr>
<tr>
<td>Soy lecithin with tocopherols (vitamin E) and vitamin A</td>
<td>Tears Again Spray (PBS)</td>
<td>Vita-POS (ointment type) (PBS)</td>
<td></td>
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</tbody>
</table>

3. If already using lubricants:
   - increase frequency of usage.
   - change to preservative-free lubricant drops.
   - consider further treatment of blepharitis.

4. If lubricant drops are not providing adequate relief, consider prescribing doxycycline 50 mg, daily, for 3 months.

5. If contact lens wearer, advise use of **contact lens lubricants**.

   **Contact lens lubricants**
   - Lubricants are often recommended for contact lens wearers to enable better tolerance of contact lens, given their increased susceptibility to dry eye.
   - Avoid lubricants with these characteristics as particles may adhere to contact lens:
     - Preservatives
     - More viscous
     - Paraffin-based
   - All lubricants are now available over the counter and often they will specifically state safety or appropriateness for use in contact lens wearers.
   - Preservative-free lubricants are best e.g., Refresh Plus, Systane Ultra, Hylo-fresh.
   - Do not use gels and ointments during the day with contact lens in situ. For use at night, gels and ointments are acceptable if contact lenses are removed.

6. If the patient still has significant symptoms (eye pain, redness, or irritation) after conservative treatment, or without obvious diagnosis, arrange **optometry assessment**. Optometrists frequently assess and manage this condition, and arrange **urgent or routine ophthalmology assessment, if required**.

7. If mild VII nerve palsy, consider using paraffin ointment at night to prevent the eye from drying out.

8. If moderate VII nerve palsy with corneal changes, arrange prompt **urgent or routine ophthalmology assessment** for corrective surgery.
Referral

- If moderate VII nerve palsy with corneal changes, arrange **urgent or routine ophthalmology assessment**.
- If the patient still has significant symptoms (eye pain, redness, or irritation) after conservative treatment, or without obvious diagnosis, arrange **optometry assessment** or refer to a **private ophthalmologist**.

Information

For health professionals

**Further information**
Sydney Hospital and Sydney Eye Hospital – Pharmacopoeia [app]:
- **iOS**
- **Android**

For patients

- Better Health Channel – **Dry Eye**
- RANZCO – **Dry Eye Syndrome**

References

**Select bibliography**