Dry Eye Disease

Authors: Caroline Yu, MD; Taylor Cork, BS; Erin Shriver, MD, FACS

What is dry eye?
Dry eye occurs when your eyes do not produce enough tears or make the right type of tears. As many as 1 in 5 Americans have dry eye disease. It can happen for many reasons, including other medical conditions and medication use.

Common Symptoms:
- Red, irritated, stinging, scratchy eyes
- Frequent tearing or watering
- Light sensitivity
- Mucus in or around your eye
- Blurred vision that comes and goes
- Eye fatigue

Reduce your risk factors:
- Reduce first- and second-hand smoke exposure
- Reduce screen time
- Wash off makeup fully every night
- Adjust CPAP fit to reduce air leak
- Avoid windy and dry climates
- Use warm compresses to improve eyelid inflammation

Fig 1. Your tears are made of three layers: an oily outer layer, a watery middle layer, and a mucus inner layer.

EyeRounds.org
Treatment:

☐ Artificial tears

Use artificial tears regularly **before** you start feeling symptoms. Most people need to use 3-4 drops daily in order to see an effect. If you use artificial tears more than 4 times a day, it is important to use **preservative free (PF)** formulations. Some example of drops that are available over the counter are:\(^1:\)

<table>
<thead>
<tr>
<th>Thin consistency</th>
<th>Thick consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lipid (oil) replacement</strong></td>
<td><strong>NanoTears TF (PF)</strong>&lt;br&gt;<strong>Oasis Tears Plus</strong>&lt;br&gt;<strong>Oasis Tears (PF)</strong>&lt;br&gt;<strong>Refresh Optive Mega-3</strong>&lt;br&gt;<strong>Retaine MGD (PF)</strong></td>
</tr>
<tr>
<td><strong>Aqueous (water) replacement</strong></td>
<td><strong>Bion (PF)</strong>&lt;br&gt;<strong>GenTeal (PF)</strong>&lt;br&gt;<strong>Refresh Optive Advanced (PF)</strong>&lt;br&gt;<strong>Soothe (PF)</strong>&lt;br&gt;<strong>Systane Ultra (PF)</strong>&lt;br&gt;<strong>TheraTears (PF)</strong></td>
</tr>
</tbody>
</table>

☐ **Lubricating ointments**

These are most commonly used at bedtime because they cause blurry vision. Apply a *small* amount to the corner of your eye, then rub the lower eyelid and blink to spread evenly. Keeping the ointment tube warm will help it come out more easily.

- **GenTeal Gel (PF)**
- **Systane Nighttime (PF)**
- **Soothe (PF)**
- **Refresh Lacrilube**
- **Refresh PM (PF)**

**Ocular Lubrication** – Please do **not** use any that say “Redness Relief” or “Gets the Red Out”

Other Treatments:

☐ **Prescription eye drops** (Restasis, Xiidra, Autologous Serum Tears, other)

☐ **Oral antibiotics**

☐ **Punctal Occlusion**: In-office procedures using plugs (a tear duct drain “stopper”) or cautery to help keep tears on the surface of the eye for longer

---

\(^1:\) Specific name brands are given as examples only. The University of Iowa does not endorse any specific product and does not have any financial relationships with these manufacturers.