

Treatments for Dry Eyes

Dry Eye Syndrome is a multifactorial disease of the tears and ocular surface that results in a range of symptoms, including discomfort, visual disturbance, tear film instability and potential damage to the ocular surface.

Dry Eye Syndrome can be classified as mild, moderate or severe (see table 1 and 2 overleaf); this document covers mild or moderate dry eyes. Patients with recent onset of symptoms can be referred for a [PEARS Optometrist assessment](#). All patients with severe symptoms should be referred to the Ophthalmology Clinic.

General management:

- Treatment should focus on lifestyle/environmental factors that may exacerbate dry eye syndrome. Especially the effects of cigarette smoke. Suggest the use of a humidifier to moisten ambient air.
- Limit contact lens use to shorter periods. Computer monitors should be at or below eye level; and patients advised to avoid staring at the screen for long periods of time and to take frequent breaks.
- Medications that can exacerbate dry eye include: topical and systemic antihistamines, TCA's, HRT, SSRI, diuretics and beta blockers.

Treatment:

- Reassure - when there is no underlying medical condition, most people with dry eyes have only discomfort and no lasting loss of vision, though visual symptoms are common as severity increases.
- Artificial tears/ocular lubricants alone are usually sufficient to provide relief for mild dry eye, and can be bought by the patient without a prescription.
- Hypromellose is a widely used product, and can be administered frequently. Products containing carbomers or polyvinyl alcohol are longer-acting. Sodium hyaluronate is becoming more widely used because of its water-retaining properties.
- Eye ointments containing paraffin's physically lubricate and protect the eye surface from epithelial erosion and are particularly useful when the eye is closed during sleep. They may be uncomfortable and blur vision, and should only be used at night and never with contact lenses.
- Each type of eye drops should be prescribed for 4-6 weeks before a different type is prescribed.
- Refer to a specialist if symptoms of mild dry eye fail to respond to any of the treatment options for "Mild Dry Eye" listed below or symptoms of moderate dry eye fail to respond to Clinitas 0.2% gel or Celluvisc UDV. Refer all patients with severe dry eye. Prescribers should have a lower threshold for referral of unresponsive contact lens wearers.
- If a patient needs to use hypromellose or polyvinyl alcohol eye drops more frequently than 4 times a day a more viscous lubricating eye drop should be prescribed.

Preservative toxicity from eye drops:

- **In the patient with mild dry eye, BAK-preserved drops are usually well tolerated when used 4-6 times a day or less.**
- Benzalkonium chloride (BAK) is the most frequently used preservative in topical ophthalmic preparations, as well as in topical lubricants. Its epithelial toxic effects have been well established. The toxicity of BAK is related to its concentration, the frequency of dosing, the level or amount of tear secretion, and the severity of the ocular surface disease.
- For patients with moderate to severe dry eye disease, the absence of preservative is more important than the particular polymeric agent used in the ocular lubricant. If these patients have more than one eye condition for which they are using eye drops, their potential exposure to preservatives is increased.
- Preservative-free formulations are absolutely necessary for patients with severe dry eye with ocular surface disease and impairment of lacrimal gland secretion, or for patients on multiple, preserved topical medications for chronic eye disease.

Table 1 – Preserved treatments for dry eyes

Mild Dry Eye: Irritation, soreness, burning or intermittent blurred vision. It is often difficult to diagnose dry eye definitively in its mild form because of inconsistent correlation between reported symptoms and clinical signs as well as the poor specificity and/or sensitivity of clinical tests. As most dry eye conditions have a chronic course, repeated observation and reporting of symptoms over time will allow clinical diagnosis of dry eye in most cases.			
Drug	Viscosity	Preserved Product	Cost
Hypromellose 0.3% Eye Drops	Low	Generic Hypromellose 0.3%	£1.21 (10 ml)
Polyvinyl Alcohol	Low	Sno-Tears 1.4%	£1.06 (10 ml)
Carbomer	Medium	Clinitas Gel 0.2%	£1.49 (10 g)
Liquid Paraffin	High	No product available	
Moderate Dry Eye: Increased discomfort and frequency of symptoms, and the negative effect on visual function may be more consistent.			
Carmellose	Medium	Generic	£7.49 (10 ml)
Carbomer	Medium	Clinitas Gel 0.2%	£1.49 (10 g)
Hydroxypropyl Guar	Medium	Systane	£4.66 (10 ml)
		Systane Ultra	£6.69 (10 ml)
		Systane Gel	£7.49 (10 ml)
Sodium Hyaluronate	Medium	No product available	

Table 2: Preservative free treatments for dry eyes

Preservative Free formulations should be prescribed for patients with:			
<ul style="list-style-type: none"> • True preservative allergy (as diagnosed by a specialist) 		<ul style="list-style-type: none"> • Evidence of epithelial toxicity from preservatives 	
<ul style="list-style-type: none"> • Soft contact lens wearers 		<ul style="list-style-type: none"> • Long term treatment > 3/12 or frequency > 6 times daily 	
Mild Dry Eye			
Drug	Viscosity	Preservative-free product	Cost
Hypromellose 0.3% Eye Drops	Low	Lumecare Tear 0.3%	£5.72 (30 UDV)
Polyvinyl Alcohol	Low	Liquifilm Tears 1.4% UDV	£5.35 (30 UDV)
Carbomer	Medium	Viscotears 0.2% UDV	£5.42 (30 UDV)
Liquid Paraffin	High	Xailin Night Ointment	£2.49 (5g tube)
Moderate Dry Eye			
Drug	Viscosity	Preservative-free product	Cost
Carmellose	Medium	Xailin Fresh 0.5%	£3.84 (30 UDV)
		Celluvisc 1% UDV	£3.00 (30 UDV)
Carbomer	Medium	Viscotears 0.2% UDV	£5.42 (30 UDV)
Hydroxypropyl Guar	Medium	Systane UDV	£4.66 (28 UDV)
		Systane Ultra UDV	£6.69 (30 UDV)
Sodium Hyaluronate	Medium	Hylo-Tears 0.1%	£8.50 (10 ml)
		Hylo-Forte 0.2%	£9.50 (10ml)