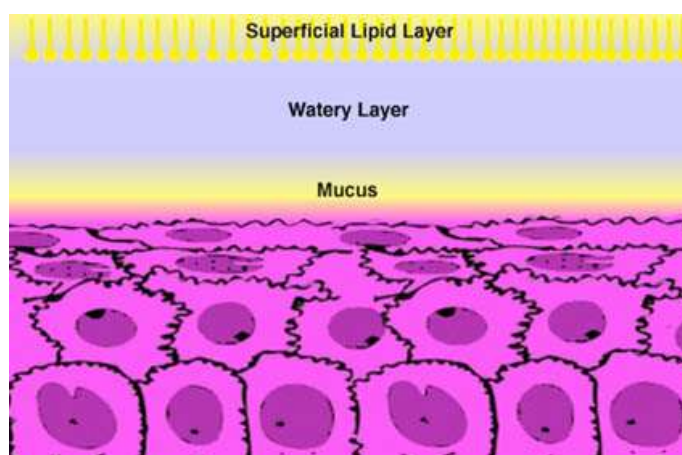


Dry Eyes

Inadequate lubrication of the eyes is a very common problem especially as we get older. It is also more common in people who have lived in hot dry countries or worked outdoors extensively.

Symptoms- These are of burning and irritation. This may be followed by reflex tearing caused by the discomfort. It tends to be worse in the winter when central heating reduces the humidity. The eyes may also be uncomfortable in the morning because strangely when the eyes are closed at night the lids re-absorb your tears making them drier. If mornings are a problem, using an ointment (eg. Lacrilube or Simple eye ointment) at night time may be beneficial.



Cross section of the tear film 1

Tears of emotion are different to Tears of Lubrication. Often people with dry eye can cry and their eyes water. These are produced from the lacrimal gland which is often not affected, whereas the tears of lubrication come from the surface of the eye.

Treatment - Treatment offers only relief from symptoms, not a cure, though regular use of drops often significantly improves the condition.

Artificial tears are the main stay of treatment. There are an ever increasing number of preparations on the market, that are becoming increasingly sophisticated. The Original Hypromellose is the most basic. This works for many people and is the first line often used. If Hypromellose does not work then there is a vast array of ever changing choices. It is a very competitive market which makes a wonderfully wide choice of really some very innovative and sophisticated products. Often it is a bit of trial and error to see which one suits you.

Artelac Rebalance Eye Drops is a combination of NA Hyaluronate and Glycerol together with Vitamin B12. It is also BAC preservative free. It may well prove a very popular dry eye drop. The solution is a comforting pink colour.

Artelac Night Time Gel complements the day time drops for those who get night time or morning discomfort. The eyes actually dry out when we are asleep as the lids are closed absorbing the tears. So it is a common time to feel dry eyes with difficulty in opening the eyes in the morning. A Gel put into the eyes last thing at night before you go to bed will help keep the eyes lubricated over night.



Optive Fusion is a combination of Carmellose with Glycerol and Na hyaluronate. One of the most advanced lubricants. It also can last 6 months after opening.

Optive Plus released 2012 has both Glycerol, Carmellose and Castor oil to mimic the tri laminar nature of the natural tear layer.

More information at www.optive.co.uk



Celluvisc (Allergan) (Carmellose 0.5%&1%) Single dose preparation similar to Optive. It is convenient and also has the benefit of being Preservative free. There is a 0.5% preparation if you find the 1% too thick. Carmellose is also available Generically (usually cheaper) which your General Practitioner may well prescribe.

Gels – Carbomers eg Viscotears (£2.94) from Ciba Vision & Gel tears from Alcon

My favourite preparation is a newish gel that is proving very beneficial in many patients. The gel lasts longer in the eye than regular eye drops but does not blur the vision or make the eye sticky like ointment. Usually twice of four times per day is sufficient but may be used hourly if necessary. Viscotears is also available preservative free if there is any allergy to preservatives, but will be a little more expensive.



Na Hyaluronate Eye drops available from a number of companies. May be beneficial in healing Corneal keratitis aspect. Na Hyaluronate is well know to eye surgeons as we use it extensively in eye surgery. Boots supply their own brand.



Vismed (Na Hyaluronate 0.18% Preservative Free Drops 20 × 0.3 mL = £5.10) and available as VisMed Multi (10 mL = £6.81). The later is 10mls and lasts 3 months.

New preparation that is aimed to provide lubrication all day. Advise try twice per day. These are safe to use with contact lenses.

VisMed Gel is a thicker 0.3% preparation – useful for severe dry eye and overnight.

Hylo-Prompt Na Hyaluronate with no preservatives. Last for 3 months available from Spectrum Ophthalmics, Fernbank house, Tytherington, Macclesfield, Cheshire. SK10 2XA Tel: 01625 618816 (£14.95 +VAT) Twice per day or more if needed.

Lubrisitl Na Hyaluronate – Individual Single use Vials from Moorfields Eye Hospital.

Optrex Dry eye Drops – Na Hyaluronate 0.15%

Oxyl is another Na Hyaluronate preparation. May be used with all types of contact lenses as well. Has a preservative that is rapidly neutralised when applied to the eye.

Ocusan/Hycoscan –Other Hyaluronate preparation. Can be helpful in Thyroid Eye disease dry eye.

Other Drops - There are several types and they can be used anything from just when needed to four times a day to every half and hour in the most severe of cases.

Hypromellose Traditional preparation: Hypo tears is a variant of Hypromellose. Very cheap £1.69 over the counter.

Tears Naturale My second favourite after Viscotears

Liquifilm A Polyvinyl alcohol useful in those with unstable tear films.

Sno-Tears Popular tear substitute

Systane Popular Glycol drop but contains preservatives.

Saline Drops 0.9% Simple but effective in some people.



Preservative Free Drops Used only in those who are allergic to the preservatives as they are packed in single dose units and therefore both more expensive and more difficult to use.

Celluvisc, Vis Med, Viscotears all come in preservative free preparations now.

Hydromoor Hypromellose from Moorfields Eye Hospital.

Saline Drops Used only in those whose eyes reacted to other drops.

Liquifilm Tears Preservative Free

Refresh Allergan another popular preservative free eye drop that is not as thick as the gel tears. Carboxymethylcellulose

Tears Naturale Popular new preservative free preparation.

These can also be used with contact lens wearers as well



For Use with Contact lenses in place

These need to be preservative free. There are several types that your Optometrist who looks after your contact lenses can advise.

Blink Tears (AMO)

NIGHT TIME ONLY- Ointments

Ointment - Though ointment lasts much longer than drops it blurs the vision for some time after instillation. Therefore is particularly useful at night or in eyes that are blind.

Preparations:

Lacri-Lube (Allergan) - Very viscous ointment useful in very severe dry eyes at night. Generally recommend Artelac first of all.

Lubri-Tears (Alcon)

Simple eye Ointment (Martindale)

Optrex Dry Eye Liquid Gel



Artelac Nighttime Eye Gel

This is much more of a gel than ointment so is far easier to apply into the eye. It is designed to be used at night to cover the dry eye over night. However it can be used during the day as well but may blur the vision some what. Very useful if you have dry eyes at night, which is not uncommon as the eyes dry out overnight. Very common to wake up with eyes stuck together and painful. This is due to the drying over night. This ointment is aimed to alleviate the symptoms.

I like to use the NightTime Gel with the Artelac Rebalance during the day, a nice combination. It is important with moderate dry eyes to keep regular drops going to keep the eye moist so using them regularly twice a day or more is advised.

VisMed Gel is a thicker 0.3% preparation unit dose (20 x 0.45 mL = £5.98)– useful for severe dry eye and overnight.

Other Advice - Use a humidifier on your radiators during the winter time. Avoid being under

ventilation ducts or drafts. Direct the air vents in the car away from your eyes and avoid using the windscreen except when de-humidifying the windscreen.

Some people find having side pieces fitted to their spectacles reduces the effects of the wind on the eyes.

OMEGA 3 Fish oils – For dry eyes.

Fish Oils Omega 3 - Some people believe this help and are readily available from Health food shops and may be worth trying. Cod Liver oil fortified with Omega 3 is cheaper than buying Omega 3 on its own. A recent study in Cornea 2010 journal undertook a Randomised trial of Omega-3 supplements. Amazingly 70% of those with supplements were asymptomatic compared to only 7% in the placebo group. Thus a marked positive effect.

However it may be appropriate to take 1000mg of Omega-3 Oils in tablet form, as well as a diet rich in oily fish (Mackerel, sardines, Anchovies and Tuna). These can be bought cheaply from Chemist Direct (0845 259 0175) at 1.89 per bottle, or at local health food shops.



For Vegetarians there is Omega 3 From Flaxseed oil from Healthspan.co.uk on 0800 73 123 77

Optrex "Red Eyes" (Extract of Witch Hazel) is of benefit if the eyes are very red and may be helpful in certain circumstances. <http://www.optrex.co.uk>

Punctal Plugs (Insurance Code C2920 Insertion of Punctal Plugs)

The tears drain naturally away through the lacrimal drainage system. This starts on the inner corner of your lid with two small tubes one in each lid upper and lower and then pass down into the back of the nose. Clearly if you have dry eyes you do not wish the tears or drops to drain quickly. By using Punctal Plugs (Like a sink Plug) these can block the lacrimal system and stop the tears draining away.

They are very easy for the doctor to insert and completely painless. You do not really feel them going in or when they are in. If in the unlikely event you find the eye waters, they can simply be removed.



There are few risks with the plugs though rarely they can move down the lacrimal system which can occasionally cause an infection or they have to be flushed down. Otherwise the only common problem is that they can be rubbed out and have to be replaced.

Please discuss this option with your doctor if you would like to consider it.

A new product to spray on to the lids which is claimed to re-fresh the eyes is Clarymist. So

patients have reported that it helps.

Pilocarpine 5mg tablets

Pilocarpine tablets for dry eyes – Study in 1999 showed significant benefit in this randomised trial. 5mg quid is well tolerated.

Spray Mists for the eyes

There is now a number of products you spray onto the eye lids which patients find helpful. Strangely it would appear they work not by absorbing through the lid, but the mist moves down to the lid margin and the oils then lubricate the eye. The spray application means there is no danger of injuries caused by bottles or tubes touching the eye.

A sufficient quantity of the lipid ingredients seeps gently between the eyelids and onto the very outer layer of the eye's tear coating. With no immediate and direct contact with the eye, there is no blurring or impairing of the vision. That means it is safe for use immediately before driving or operating machinery, and if you are at work you can continue uninterrupted.



Clarymist™ eye spray contains preservatives which assure it of a long life without deterioration. Once opened **Clarymist™** eye spray is safe to use up to three years from the date of manufacture – the 'use by' date is marked on both the pack and the bottle.

There is also ActiMist Eye spray

(http://www.optrex.co.uk/optrex_range/optrex_actimist_how_it_works.php) from Optrex which is a similar spray to use on the eye lids.

Restasis – Cyclosporin

In severe dry eyes Restasis has been shown to stimulate tear production. Unfortunately this drug is only available and approved in the USA despite clinicians requests for it to be licensed in the UK. However it is possible to obtain the eye drop in the UK from John Bell and Croydon, Wigmore street London on 0207 535 5613. However the price is £182.34. It is not available on an NHS prescription.

LACRISERT® is a new slow release pelt that is available only in USA at present but we may see in the UK in due course.

LACRISERT® is indicated in patients with moderate to severe Dry Eye syndromes, including keratoconjunctivitis sicca. LACRISERT® is indicated especially in patients who remain symptomatic after an adequate trial of therapy with artificial tear solutions. LACRISERT® is also indicated for patients with exposure keratitis, decreased corneal sensitivity, and recurrent corneal erosions.

