

Dry Eyes

Tears keep our eye fronts lubricated and they allow the eyelids to open and close with ease over the eyeball as we blink. For some people the tear sacs do not produce enough tears. This can lead to friction as the eyelids rub off the eyeballs and can cause an irritating condition called “dry eye syndrome”.

Symptoms of dry eye

Symptoms of dry eye can include irritation and redness, itchy eyes, burning eyes, blurred vision (that improves with blinking) and excessive tears (eye tries to over compensate). Air conditioning and central heating can make the problem worse. Dry eyes can give the sensation that there is grit in the eyes.

Excess tears can start running down the cheeks which can make diagnosis confusing as you would imagine that dry eyes would reduce tears. Basically this excess “tears” occurs as the eyes are not being lubricated sufficiently and try to over compensate by producing more tears. These tears are mostly water and do not have the lubricating qualities or the rich composition of normal tears. Thus, these “low quality” tears will wash debris away but do not lubricate the eye sufficiently.

Many people with dry eyes find that the dry eye symptoms are fine in the morning (as the eyelids have been closed overnight and tears do not evaporate) but gets worse as the day goes on as the eyes are exposed to the elements and evaporation of tears increases. The most common treatment for dry eyes is artificial tears that are available over the counter in chemists and are also available on the medical card if the doctor prescribes.

Causes of dry eye

Some medical conditions cause dry eye including, arthritis, thyroid conditions, vitamin A deficiency, Parkinson's disease and Sjögren syndrome (see more info on Sjögren syndrome later).

Ageing

Dry eye mostly occurs as a part of the natural ageing process. It affects about a third of people over 65 and is 50% more common in women than men. The body produces less oils as we get older, including the oily outer layer of the tear film. This oily layer is needed to form a protective coating over the tears and stops tears evaporating. Hormonal changes during menopause can cause eyes problems in women.

Physical problems

Dry eye can also be caused by problems with blinking or problems with the glands which produce the tears. Eyelid issues can include blocked meibomian glands which produce the protective oily layer of the tear film or damage to the tear producing glands. Blepharitis which is inflammation of the eyelids is a common cause. Causes of blepharitis include dry skin conditions like seborrhoeic dermatitis (similar to dandruff) and rosacea (skin condition which causes facial redness and pimples in some cases). Blepharitis tends to cause blockage of the oil producing glands. Many people suffering from allergic conjunctivitis (hayfever or hayfever like symptoms) experience dry eyes.

Medication

Dry eyes are a side effect of some medicines. Some medicines that can cause dry eyes include oral contraceptives, decongestants (used to unblock the nose), diuretics (used to reduce blood pressure and improve fluid control), anti-histamines, beta blockers (used for

heart problems and high blood pressure), some older anti-depressants (eg tri-cyclic antidepressants) and anti-inflammatory medicines. See more about this in the treatment section.

Contact lenses

Contact lenses increase the risk of dry eyes, especially if kept in too long. Water-based lenses tend to absorb moisture from the tear film; this reduces the quantity of remaining tears. Using higher moisture or silicone hydrogel contact lenses reduces dry eye issues.

Sjögren syndrome

Sjögren syndrome is an autoimmune condition in which the body's white blood cells attack other cells in the body. The main symptoms of Sjögren syndrome are dry eyes and dry mouth and enlargement of the parotid glands (salivary gland located in the cheeks just in front of the ears). Dry eyes and mouth occur in 95% of cases. It is reckoned that in 60% of cases, Sjögren syndrome occurs with or is linked to other the inflammatory autoimmune conditions like rheumatoid arthritis, fibromyalgia and systemic lupus erythematosus. Most people with need to use artificial tears on a regular basis to relieve symptoms of dry eyes. More detailed info on Sjögren syndrome is available in Whelehans pharmacy; simply ask staff for our detailed info sheet on the condition.

Other causes

People working on screens for long periods at a time tend to blink less frequently. This allows tears to evaporate more readily which can lead to dry eyes. Smoking or exposure to smoke from a smoker (more common before the smoking ban) can irritate the eyes and cause dryness. Similarly, air pollution (eg. exhaust fumes) can cause the problem.

Diagnosis

In more severe cases, your GP may refer you to an ophthalmologist who can do specialised tests to assess how much tears are being produced. Tests such as tear break-up time or the Schirmer's test can check the quantity and quality of tear production. Corneal damaged can be diagnosed by staining the eyes with a substance like fluorescein. However, most people are diagnosed by description of symptoms and basic eye examination.

Tips for easing dry eyes

If possible, avoid constant exposure to air conditioning and central heating. Avoid draughts. Humidifiers can help in some cases. Blink more frequently if you work on a computer screen or read for long periods. If wearing contact lenses, change to high moisture or silicone hydrogel contact lenses.

Treatment

As mentioned earlier, in many cases dry eyes is caused by medication (both prescription or over the counter) such as anti-histamines, blood pressure medication, some anti-depressants anti-inflammatory medicines. In cases where the medicines are causing severe dry eye problems, the doctor may consider changing to an alternative that does not cause the problem (eg. newer anti-depressants do not cause as many dry eyes issues), however in some cases there is no safe alternative. In these cases, artificial tears are the only effective treatment option. You can also check with your pharmacist if you feel your medicines may be causing dry eyes; your pharmacist will be able to tell you if the medicine could be causing the problem as well as effective alternative options.

Artificial tears

Your GP, pharmacist or optician can advise on drops, ointments and gels. They are available without prescription at your pharmacy. They replicate the role of natural tears. Drops are often used during the day (eg. three times daily) and an ointment or gel is used at night as they are thicker and tend to last for longer while you sleep. There is no evidence that one brand is any more effective than the next; though preservative free versions are recommended by some eye specialists to reduce the risk of preservative causing irritation (though these are more expensive). Contacts lens should not be used with artificial tears; if they must be used, use preservative free artificial tears and hold off inserting contact lens for 30 minutes after using the artificial tears. Always use artificial tears at a different time from other prescribed eye drops (eg. glaucoma drops, antibiotic eye drops) as the artificial tears will dilute or wash away the other drops. Artificial tears are available on the Medical Card Scheme and the Drug Payment Scheme with doctor's prescription.

Punctal occlusion

This is done by a specialist and involves reversible blocking of the punctal ducts to block the release of excess tears (which occurs due to the eye trying to over compensate). The tear duct plugs used can be either semi permanent (silicone) or dissolvable. Punctal occlusion does not work for everyone and should only be considered when artificial tears fail to work.

Omega 3 Oils

In recent years, studies have indicated that a diet rich in Omega 3 oils can reduce the risk of developing dry eye and also ease symptoms. Omega 3 fatty acids are primarily found in oily fish such as salmon, fresh tuna, mackerel, herring, sardines and pilchards. We should eat two portions of fish per week, one of them oily. Flaxseed oil which is also known as linseed oil is six times richer than most fish oils in and its oil are perhaps the most widely available botanical source of omega 3. You can buy flaxseed in supermarkets and you can add to the likes of porridge and yogurt to boost your omega 3 levels. For people who do not eat sufficient fish oils, I recommend a fish oil supplement called MorEPA[®] as it contains the highest level of pure omega 3 fatty acids (EPA and DHA) of any fish oil supplement on the market. It is simpler to take than many other brands as it is a simple once daily capsule. It is available in Whelehans.

How Omega 7's can relieve dry eyes?

Omega-7 fatty acids help boost the immune system and (like omega 3) reduce inflammation. Their main benefits are their ability to reduce dryness in membranes of the body. Thus they can help reduce the likes of dry eyes and reduce vaginal dryness (a common cause of irritation during menopause). I got introduced to Omega 7 in the last year by a pharmacist colleague of mine who mentioned that many of his patients found it helped relieve dry eyes. I was a little sceptical at first; however I recommended it to a few people suffering from Sjögren's syndrome (an inflammatory condition that causes severe dry eyes) and they got a benefit of it; a significant improvement in a few cases. In Whelehans Pharmacy, we stock the Pharma Nord brand of Omega 7 capsules. While omega 7 is not as beneficial to overall health as Omega 3 and it should not be seen as an alternative to proper medical assessment, it may give some relief to those suffering from dry eyes or vaginal dryness.

Omega-7 fatty acids are derived from berries of a shrub called sea buckthorn which originates in the Himalayas. Most research into the sea buckthorn plant has been carried out by Chinese and Russian scientists; sea buckthorn is widely used for its health benefits in these countries. It has long been used as part of traditional Chinese medicine. In recent years, the benefits of the sea buckthorn are becoming more recognised in Europe and North America.

Benefits of omega-7 fatty acids

Omega-7 fatty acids help maintain healthy mucous membranes throughout the body. They increase fluidity in the membranes and prevent oxidation. Thus they prevent dryness of the eyes and genital tract lining (particularly in menopausal women). Omega-7 fatty acids accelerate tissue regeneration and have an anti-inflammatory action in the skin and mucosa.

Clinical studies demonstrate that omega-7 fatty acids have the following benefits:

- Prevention of vaginal dryness in menopausal women
- Prevent and ease dry eyes
- Promote normal immune function reduce inflammatory disorders

Relieving Dry Eyes

One clinical study conducted on one hundred men and women aged 20 to 75 experiencing dry eye symptoms demonstrated the benefits of omega 7. For 12 weeks, half the participants took an omega 7 supplement. The group who took the omega 7 supplement experienced less redness and burning sensations than the group who took the placebo. Other studies show that omega 7 increases the fatty acid composition of the tear film meaning that the traditional symptoms of dry eyes reduced significantly.

Omega 7 has produced positive results in studies of women with Sjögren's syndrome, an autoimmune disease (more common in women than men) that causes excessive dryness in the eyes, mouth, and vagina. In one double-blind, placebo-controlled study, 24 women aged 35 to 66 took an omega 7 supplement or a placebo for 12 weeks. The omega 7 supplement gave relief to itch, pain, dryness and burning sensations in the mucosal tissues experienced by those with Sjögren's syndrome. There are no reports of significant adverse effects with Omega-7 fatty acids. Omega 7 is a supplement, not a drug. It is not meant as a substitute for proper medical assessment with your doctor and should not replace prescription medication. However, it may compliment conventional medicines. Omega 7 is not a cure all for dry eyes, however taking it as a supplement may give some relief.

For comprehensive and free health advice and information call in to Whelehans, log on to www.whelehans.ie or dial 04493 34591.