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You have been scheduled for a dry eye appointment at Collins Street Optometrists at	
am / pm	on

# What is dry eye?

Dry eye syndrome is a common ocular surface condition that occurs if there is an underproduction of natural tears or if the tears are of poor quality. In the early stages dry eye syndrome is not always symptomatic. Left undiagnosed and untreated, dry eye can lead to inflammation of the front surface of the eye. In the longer term it can have more serious effects on corneal health, as well as reduce vision and cause ocular discomfort.

## Background information on the tear film and dry eye:

The tear film serves a number of purposes. When functioning properly, it provides a smooth layer for light to enter the eye, so it is vital for good optics and vision. The tear film also protects the front of the eye from the environment and allows the lids to slide comfortably over the front surface. The tear film consists of three major layers:

- The outer oily or lipid layer that prevents the tears from breaking up and evaporating, and also helps the tears spread over the cornea. This layer is produced by the meibomian glands, about 25 of which line the margins of each eyelid. The oils secreted by these glands should be clear and run freely, resembling olive oil. Sometimes, however, the glands become blocked and/or the secretions become hard and waxy, no longer flowing freely.
- The middle aqueous layer that makes up the bulk of the tears. This layer is produced mainly by the lacrimal glands along with a number of smaller glands in the conjunctiva; it also contains various salts, proteins and anti-bodies that are critical for corneal wound repair and resistance against infection.
- The inner *mucous layer* that is responsible for enabling the tears to wet the eye by adhering to its front surface. This layer also removes unwanted fatty compounds from the corneal surface.

**Tear quantity** is determined by the aqueous layer whereas **tear quality** is generally dependent on the oily and mucous layers.

#### Types of dry eye disease

There are two main forms of dry eye disease - these are typically called *evaporative dry eye*, caused poor quality tears, and *aqueous insufficiency* due to low tear quantity.

- Evaporative dry eye accounts for around 80% of dry eye disease and is caused by poor functioning and/or blockage of the meibomian glands, also known as meibomian gland dysfunction (MGD - see also below). Decreased oil secretion by the meibomian glands results in rapid evaporation and breakup of the tears.
- Aqueous insufficiency occurs when the lacrimal gland fails to produce enough of the watery component of the tears. This results in hyperosmolarity of the tears, which means the tear salts and proteins become highly concentrated. In turn these high concentrations irritate the front surface of the eye, causing it to become inflamed.

### The Dry Eye Clinic at Collins Street Optometrists

Collins Street Optometrists run a specialised dry eye clinic at Level 9, 267 Collins Street Melbourne, utilising advanced tools and equipment to further assess dry eye signs and symptoms.

On the day of your appointment please do not use any existing drops or ointments. If you currently wear contact lenses please avoid wearing these and if possible attend with spectacles. Please also bring in a list of any medications that you are taking as dry eye can occur with certain systemic conditions.

### **Specialised Treatment and Management Options**

Treatment plans for dry eye patients are very individual and should be based on your individual circumstance. Some of the latest management options available at Collins Street Optometrists include:

- In-office LipiFlow® automated thermal pulsation treatment
- In-office eye-light LLLR and OPE IPL & manual meibomian gland expression
- In-office Blephasteam® & manual meibomian gland expression
- In office Blephex™

### **Fees for Dry Eye Services**

Your visit to Collins Street Optometrists is a specialised consultation. A significant component of this involves viewing your tear function with Oculus K5 keratography. A fee of \$68.20 is charged for this procedure as well as a consultation fee of \$99.30 for the other tasks, discussion and advice involved - this fee will normally attract a Medicare rebate of \$62.45

#### **Further Information**

Further information regarding dry eye is available at the Collins Street Optometrists webpage at www.collinsoptometrists.com.au