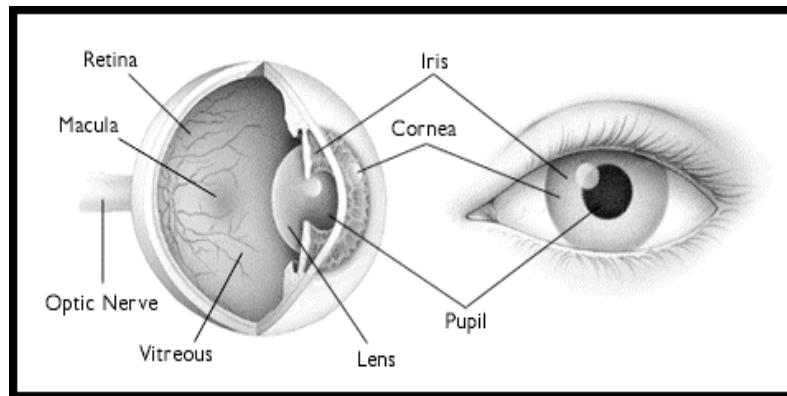


FUCH'S CORNEAL ENDOTHELIAL DYSTROPHY

This uncommon condition, usually affecting older women more than men, can be associated with gradual blurring of vision.

One of the essential requirements to see clearly is a clear cornea. The cornea is the clear window on the front of the eye through which the coloured part (iris) and pupil can be seen. Some people are born with an inherent weakness in the cornea, which means that as they age, the cornea gradually becomes waterlogged and cloudy. The actual defect is in the endothelial cells, which are the cells that line the back (inside) surface of the cornea. These cells are continually pumping fluid from the corneal tissue back to the interior of the eye and maintain the cornea in a dehydrated state. When these cells are insufficient in either number or function, as in Fuch's Dystrophy, the cornea can start to become waterlogged and hazy.

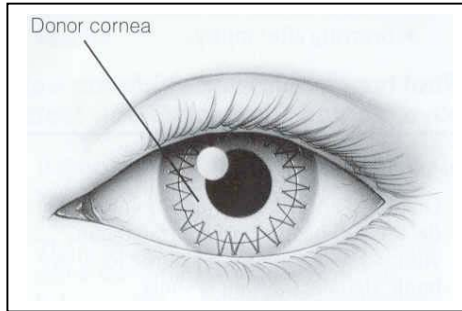


Often the first symptoms are blurred vision early in the morning, when the cornea is at its most waterlogged. Once the eye is open and the tears have started to evaporate from the surface, this takes some of the fluid out of the corneal tissue and the vision can clear. Some patients use a hair dryer, held at arms length directed towards their eyes, as a treatment first thing in the morning to help to dehydrate their corneas and clear their vision more quickly. An alternative way to do this is to use high concentration salt water (saline 5%) drops to dehydrate the corneal tissue.

Great care should be taken when performing intra-ocular surgery in patients who have Fuch's Dystrophy as any further injury to the cells lining the back surface of the cornea, may cause the condition to deteriorate more rapidly. In particular, this is relevant to cataract surgery.

TREATMENT:

The dehydrating treatments noted above are worthwhile for a variable period of time. In some patients, the condition will deteriorate so that the vision is blurry most of the time and at that stage, it is time to consider a corneal transplant. In a corneal transplant, a central disc of the cloudy cornea is removed and replaced with some clear corneal tissue donated by an organ donor. This tissue is sutured into place and usually leads to gradually improving vision over subsequent months (diagram next page). The time to consider having a corneal transplant is when the surgeon and the patient considers that the patient's vision is inadequate for their needs and that it is likely to improve with surgery.



CONTACT LENS WEAR:

Conventional soft contact lenses are often not recommended in patients with Fuch's Dystrophy as they can stress the remaining endothelial cells and cause a more rapid decline in vision. If contact lenses are essential, then the newer Silicone Hydrogel lenses or even Rigid Gas Permeable lenses may be recommended. Often however it is decided that it is safest to use only spectacles to correct any focus error. Laser surgery for refractive error is usually not recommended for patients with Fuch's Dystrophy.