

Futuristic light therapy for dry eye (and the skin)!

Sheraz Daya

MD FACP FACS FRCS(Ed) FRCOPhth

Dry eye is an increasingly common condition, which gets worse with age and leads to considerable misery for many. Understanding what causes dry eye is necessary to appreciate how light therapy might help.

The vast majority (80%) of dry itchy, burning eyes is from a condition that affects meibomian glands, which are like keys of a piano, embedded in the eyelids. These should normally produce clear oils that mix with tears preventing evaporation.

Omega 3 deficiencies can cause dry eye

Abnormalities in oil production often from Omega 3 deficiency can lead to stagnation of oils and, in turn, infestation from parasites (*Demodex folliculorum*) and varieties of bacteria. This sets up a viscous cycle of inflammation, gland blockage and further problems.

Patients typically complain of tearing and irritation in air-conditioned rooms or when they are out in windy conditions. With no healthy oils, tears evaporate rapidly and the eyes dry out. This results in “reflex tearing” and the eyes start streaming – no wonder they look at us bewildered when we tell them the cause of their streaming eyes is dry eye!

Correcting the source of the problem with supplemental Omega 3 is one approach and can take months to years. To really kick-start recovery, a form of light therapy called Intense Pulsed Light (IPL) is very effective. Multiple wavelengths of high energy light are delivered in short rapid pulses.



Light therapy stimulates oil production

The five-minute treatment involves covering the eyes with a light blocking sticker or goggles, application of a gel and delivery of treatment from one ear across the lower lid, nose and on the lid on the other side all the way across to the other ear. All one feels is a sense of warmth when the light is delivered.

The light delivers heat under the top layer of the skin. In doing so, the meibomian glands are stimulated to produce oils, inflamed vessels absorb the light and shrink, and offending bacteria and parasites are killed. While there are several IPL devices in use, in my experience the “Rolls Royce” device is the Optima IPL, from Lumenis, who invented the procedure and made considerable advancements in its protocols.

Intense pulsed light can also be used to treat rosacea, a skin condition that affects the nose, cheeks and forehead, which, in 30% of cases is associated with lid disease contributing to dry eye and known as ocular rosacea.

If you have dry eye, ask your surgeon about Optima IPL and, who knows, you might also benefit from treatment to your face too!