

## Patient Information: IPL Treatment for Dry Eyes

### What is IPL Treatment?

Intense Pulsed Light (IPL) therapy is a quick, non-invasive treatment originally used for skin conditions, such as rosacea. It has now been adapted to treat **dry eye disease**, especially in cases caused by **Meibomian Gland Dysfunction (MGD)**—a common contributor to evaporative dry eye. IPL uses controlled pulses of light energy to reduce inflammation and improve the function of the meibomian glands in your eyelids, helping restore a healthy tear film. Options Eyecare have been offering this treatment to our patients since 2015.

Prior to the option of IPL treatment for dry eyes, there were only symptomatic treatments like artificial tears eye drops, warm compresses, or manual expression of the Meibomian glands. These treatments may offer temporary relief, but they do not help to target the root causes of your dry eye symptoms.

### Potential Benefits of IPL for Dry Eye

- **Improved tear quality:** Reduces tear evaporation by restoring healthy oil production.
- **Reduced inflammation:** Helps control redness, irritation, and swelling of the eyelids.
- **Fewer symptoms:** Many patients report reduced dryness, burning, and discomfort after treatment.
- **Long-lasting relief:** With regular treatments, IPL can provide sustained improvement.

### Who Can Benefit from IPL?

- People with **Meibomian Gland Dysfunction (MGD)** or **evaporative dry eye**.
- Patients with **chronic inflammation** of the eyelids (blepharitis), recurrent styes or chalazia (cysts).
- Those who have **rosacea** or other inflammatory skin conditions affecting the eyelids.
- Individuals who have not responded well to traditional treatments like artificial tears or medications.

### Why is it important?

- Chronic Meibomian Gland Dysfunction leads to meibomian gland atrophy (loss), resulting in permanent loss of oils in the tear film.
- Left untreated, the meibomian gland functions cannot be restored and continuous use of lubricating drops will be required.
- It is therefore vital to restore the glands to their normal function before permanent damage occurs.

## How Does IPL Work for Dry Eye?

- IPL reduces the inflammation that drives dry eye symptoms. The light pulses target **abnormal blood vessels** and **inflammatory mediators** on the ocular surface.
- IPL also **heats and unblocks the oil glands** (meibomian glands) in the eyelids, helping improve the quality of the tear film and reducing tear evaporation.
- IPL is also effective against **demodex** mites and **bacteria** – the normal skin micro-organisms that can live on the eyelids and cause dry eye symptoms.
- IPL stimulates the parasympathetic nerves that supply the meibomian glands, and helps to **improve meibomian gland function** and reduce the frequency of dry eye symptoms.

## What to Expect During IPL Treatment

### 1. Preparation

- Your optometrist will apply a cooling gel to the treatment area and provide protective goggles to shield your eyes.
- We ask that at each appointment you **don't wear any makeup or sunscreen** on your face.

### 2. The Procedure

- Five pulses of light are applied to the skin beneath the lower eyelids.
- The treatment is generally painless, though you may feel a warm sensation on your skin or mild discomfort. It is not painful like laser hair removal.

### 3. Post-Treatment

- Some patients experience mild redness or sensitivity in the treated area for a few hours afterwards.
- Most people can return to their normal activities immediately after the session.
- It is recommended to avoid direct sun exposure immediately following a treatment, and to wear sunscreen to protect the treated skin after a treatment session.
- Your optometrist may recommend you use eyedrops alongside your IPL treatments to maximise your results – this is dependent on the severity of your symptoms.

## Results

- The best results from IPL are obtained with a course of **four treatments**, performed at **day 1, 15, 45, and 75**.
- Many people notice some improvement in symptoms after the first treatment, which can last for up to two weeks. The results from each session are cumulative, with the improvement in symptoms lasting longer after each treatment. If your dry eye is quite severe to start with, it may take the full course of four treatments for you to start noticing changes.
- In a study performed in New Zealand in 2015<sup>1</sup>, 86% of participants noted reduced symptoms in the treated eye at day 45 after three IPL treatment sessions.

## Are There Any Risks or Side Effects?

- Numerous studies<sup>2</sup> have demonstrated that IPL is a safe and effective procedure for treating MGD.
- There is very little risk to the eyes themselves, as they are shielded during the procedure, and the treatment is applied to the skin beneath the eyelids. There is no risk of skin cancer from IPL because the light is filtered to remove harmful UV wavelengths.
- IPL is generally safe, but it may not be suitable for people with certain skin types (very dark skin), health conditions or medications that increase light sensitivity. Due to a lack of available research data, we currently do not recommend IPL for pregnant women, people with a pacemaker, people with photosensitive epilepsy, or diabetes.
- You may experience mild **skin redness** or **swelling** in the treated area (usually resolves within a few hours). We apply a cooling gel to protect your skin during the treatment to minimise this risk.
- As with any medical treatment, results may vary, and it's important to follow your optometrist's recommendations for ongoing care. Dry eye is a chronic condition; the goal of IPL is to reduce the frequency and severity of your flare-ups.

## IPL Treatment Schedule and Pricing

- IPL treatments are typically done in a **series of 4 sessions** spaced **2-4 weeks apart**.
- Maintenance sessions may be recommended every **6-12 months** to maintain results.
- An IPL treatment is **\$240** for a single session. Options Eyecare offers a **package discount at \$750** for your four initial sessions if paid in full at your first treatment.

## Conclusion

IPL is a promising option for individuals with chronic dry eye caused by Meibomian Gland Dysfunction or eyelid inflammation. It offers a **non-invasive** way to improve tear quality, reduce inflammation, and relieve symptoms. Speak with your optometrist to determine if IPL is the right treatment for your dry eye condition.

## References

1. J.P. Craig, Y.H. Chen, P.R. Turnbull. Prospective trial of intense pulsed light for the treatment of meibomian gland dysfunction. *Invest Ophthalmol Vis Sci*, 56 (2015), pp. 1965-1970
2. B Tashbayev, M Yazdani, R Arita, F Fineide, T.P. Utheim. Intense pulsed light treatment in meibomian gland dysfunction: A concise review. *The Ocular Surface*, 18 (2020) pp 583-594. <https://doi.org/10.1016/j.jtos.2020.06.002>.