

Intense Light Therapy (IPL)

Every day, a growing number of patients present complaints of dry, gritty, uncomfortable eyes, blurred vision and chronic eye redness. With an explosion in the use of digital devices, shifts in diet, certain medications, auto immune conditions, contact lenses, certain cosmetics, altered lid microbiome build up, or the inability to close the eyelids completely, to name a few reasons, eye-care providers are encountering a significant increase in their volume of dry eye patients.

We know, Meibomian Gland Disease (MGD) is a chronic, abnormality of the meibomian glands resulting in a lack of tear homeostasis, reduced tear film quality, inflammation, and ocular surface disease. Although MGD is complex and multifactorial, MGD arises from a combination of the following conditions:

- Primary obstructive hyperkeratinization
- Abnormal meibomian secretion
- Eyelid inflammation
- Corneal conjunctival inflammation
- Epithelial damage
- Ocular bacteria

Intense Pulsed Light treatment for dry eye utilizes pulses of light to liquefy and release thickened oils that have clogged meibomian glands in the eyelids with the use of expression. IPL also affects vascularization and inflammation of the eyelids, reducing eyelid redness and stimulating healthy gland function. Our IPL treatments include photobiomodulation masks of specific wavelengths to stimulate gland efficiency around the eyes to maximize cellular and gland enhancement. Dry eye is an inflammatory eye disease. This inflammation damages the glands primarily in the lower eye lid as well as the upper eye lid, leading to decreased oil production, loss of eyelashes and scarring and thickening of the lid margin. The oil is required to protect the ocular surface from drying out, and is important for good vision and comfort.

Inflammation is caused by an increasing effect of the small blood vessels that your body produces in response to inflammation. They are weak and leak inflammatory products. Although tears may temporarily make your eye feel better, they do nothing to address the cause of the inflammation.

The only procedure we have found to be successful at addressing the cause of this inflammation due to this is IPL. It will destroy the small blood vessels that cause the inflammation and may even promote your glands to function better. As an added bonus this is the only dry-eye treatment that has an aesthetic benefit.

Although many people notice improvement in dry eye symptoms after their first or second treatment, your doctor will recommend an initial series of four IPL treatments, performed over six to eight weeks. This initial treatment bundle is designed to help with long-term success in treating both chronic dry eye disease and Meibomian Gland Dysfunction (MGD), the root cause of dry eye disease.

After the initial series of IPL treatments, most people will need only occasional maintenance treatments, depending on the severity of their dry eye condition. Your doctor may also recommend combining IPL treatments with other dry eye therapies such as [LipiFlow](#)[®], punctal plugs, or medications to maximize effectiveness and enhance symptom relief.

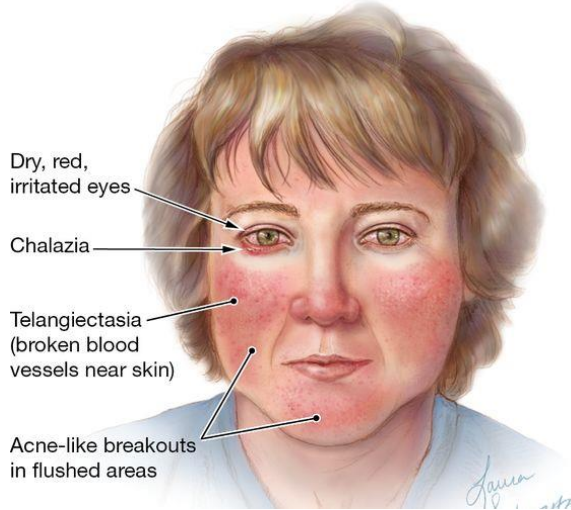
IPL stands for Intense Pulsed Light, and is a light-based technology commonly used in dermatology to treat rosacea and reduce telangiectasia. IPL is now being used in ophthalmology to treat meibomian gland dysfunction and dry-eye disease.

During the procedure, a strategic level of light pulses is administered to penetrate the skin under the eye and targets the root cause of the inflammation. As the IPL treatment treats your overall skin appearance, your eyelid inflammation is treated and improved as well. IPL procedures are effective, gentle and safe.

Additionally, the link between rosacea and MGD is well established, with 80 percent of rosacea patients suffering from symptoms of MGD. IPL stimulates facial tissue through controlled light pulses, usually used to target chromophores in the melanin or blood. The light emitted during an IPL procedure is absorbed by the oxyhemoglobin, creating heat and coagulating the vessel to reduce its appearance below the skin. There are certain foods and activities that can trigger ocular rosacea such as: spicy foods, hot caffeinated drinks, extremely cold or hot temperatures, anger and stress, UV sunlight, vigorous exercise, saunas or hot baths, corticosteroids, poor eating habits, (processed food, low vegetable intake) and poor hygiene.

OCULAR ROSACEA

Variety of features that may be present in individuals with rosacea



Ocular rosacea is inflammation that causes redness, burning and itching of the eyes and eyelids.

Signs and symptoms of ocular rosacea may include: dry eyes, burning or stinging in the eyes, itchy eyes, grittiness or a feeling of a foreign body in the eyes, blurred vision, sensitivity to light, dilated small blood vessels on the white part of the eye that are visible in the mirror, and/or dilated small blood vessels on the inner skin of the upper and lower eyelids. Some patients also have redness of the nose and cheeks.

Some patients feel that dietary restrictions of caffeine, spicy foods and alcoholic beverages may reduce or eliminate symptoms. Protecting your eyes from UV rays may also reduce symptoms.

The exact cause of ocular rosacea may be due to one or more of the factors, including:

- Heredity
- Environmental factors
- Bacterial involvement
- Blocked glands in the eyelids
- Eyelash mites

Some treatments that are effective for the management and decrease of ocular rosacea symptoms include:

IPL TREATMENTS (INTENSE PULSE LIGHT THERAPY)

Intense pulse light therapy is intended to reduce ocular lid inflammation, which can contribute to lid discomfort, ocular surface issues and low grade infection. IPL is a light therapy that uses a broad range of wavelengths to warm the skin and reabsorb abnormal blood vessels. In addition to IPL constricting unwanted blood vessels that contribute to inflammation, it acts as a warm compress and helps to soften oil secretions that have plugged the meibomian glands. The IPL device will deliver light to the treatment area on the upper part of your face and across the nose region with the added benefit of reducing wrinkle lines and skin blemishes.

MBE (MICROBLEPHARO-EXFOLIATION)

Microblepharo-exfoliation is to reduce the bacterial bio-load of the lids and soothe inflammation in and around the eyelids. It also targets the reduction of excess demodex mites on the eyelids. This in-office procedure takes approximately 15 to 20 minutes and will need to be repeated at regular intervals to keep the bacteria from returning to excess levels. Most patients choose to repeat this procedure annually or semi-annually.