# WHAT TO KNOW ABOUT DRY EYE DISEASE

Dry eye disease is a common condition that occurs when the eyes are unable to maintain a healthy layer of tears to lubricate and protect the front surface of the eye, known as the cornea.

Tears are essential for keeping the eyes healthy, comfortable, and functioning properly. Their lubricating, protective, and nourishing properties are crucial for maintaining clear vision and ocular health.

The cornea is a unique tissue due to its avascular nature, meaning it receives oxygen through the air. All other tissue in the human body receives oxygen through blood flow.

It is critical to eye health that there be a healthy interface present between the front surface of the eye and the air. This is where our tears play a pivotal role as the interface that carries the oxygen and nutrients.

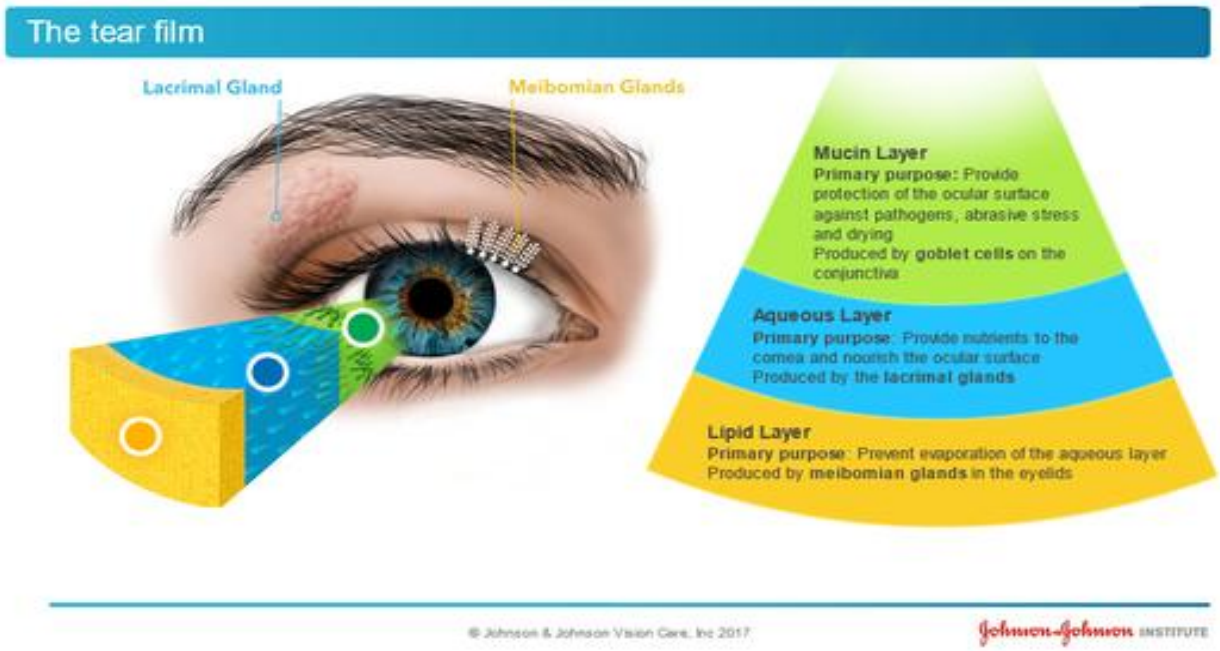
Tears are made up of three layers: the oily/lipid layer on the outside, the watery/aqueous layer in the middle, and the inner, mucus layer. The three layers together are known as the tear film.

---

The Dry Eye Site
104 Buckwalter Pkwy Unit 1 C  Bluffton, SC 29910
843.757.9588
www.theeyesiteofbluffton.com

Jola Rzegocki O.D.  Jennifer Switak O.D.  Robert Szypczak O.D.

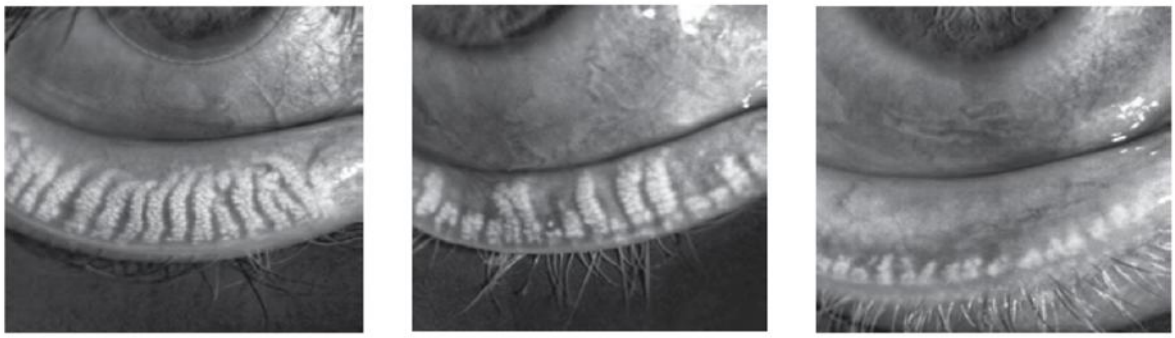
# THE TEAR FILM




The tear film delivers nutrients and oxygen to the cornea, the transparent front part of the eye. Unlike other parts of your body, the cornea doesn't have any blood vessels (avascular), which means it can't get nutrients and oxygen directly from the bloodstream like other tissues.

The tear film is made of 3 layers: mucin layer, aqueous and the lipid layer. The “Oily” lipid layer (meibum) is produced by the meibomian glands, small glands in the upper and lower eyelids. The oily layer is crucial for maintaining the tear film and preventing tear evaporation. When these glands malfunction, known as meibomian gland dysfunction (MGD), it reduces the quantity or quality of meibum, destabilizing the tear film and leading to increased tear evaporation, a key factor in dry eye syndrome.

## Meibomian Gland Dysfunction (MGD)



Normal | Moderate loss | Severe Loss

## SYMPTOMS OF Meibomian Gland Dysfunction (MGD)

- Blurry vision
- Burning and dry sensation
- Difficulty wearing contact lenses
- Eye pain/strain
- Watery eyes
- Red, sore, itchy, and gritty eyes
- Crusty or sticky eyelids
- Light sensitivity

## RISK FACTORS ASSOCIATED WITH MGD:

| | | | |
|---|---|---|---|
| Age | Contact Lens Wear | | |
| Hormonal Changes | Screen Time | | Meibomian Gland Dysfunction |
| Environment | Autoimmune Disease | = | + |
| Medication | Lacrimal Dysfunction | | Inflammation |

## (MGD) can lead to inflammation through a few mechanisms:

1. **Obstruction and Stagnation**: Meibomian glands become dysfunctional, impairing the production or secretion of meibum. This can lead to obstruction of the gland or alteration in the quality of the meibum, resulting in stagnation within the gland.
2. **Bacterial Overgrowth**: Stagnant meibum provides a favorable environment for the overgrowth of bacteria, which can proliferate within the blocked gland, leading to an infection or colonization of bacteria.
3. **Inflammatory Response**: The presence of bacterial overgrowth or other irritants within the Meibomian gland can trigger an immune response. This inflammatory response can cause swelling, redness, and discomfort in the area.
4. **Tear Film Instability**: The dysfunction of Meibomian glands can also result in instability of the tear film covering the surface of the eye. Inadequate oil secretion can lead to increased tear evaporation, causing dry spots on the cornea and conjunctiva. Chronic dryness and irritation can further exacerbate inflammation in the ocular surface tissue.

# THE TREATMENT PROTOCOL

## INTENSE PULSE LIGHT (IPL)

and

## RADIO FREQUENCY (RF)

INTENSE PULSE LIGHT (IPL) works to control the inflammatory process to reduce the need for medications.

IPL treats ocular rosacea, meibomian gland dysfunction, inflammatory dry eye and decreases demodex and bacteria around the eyelids. It transforms the use of light and allows targeted, uniform, precise, and controlled treatment. Specifically designed for the delicate area below the eye, IPL safely and effectively breaks the vicious cycle of inflammation associated with dry eye.

IPL creates tissue heating, which helps to reduce inflammation. During treatment, there will be a bright flash of light and a sensation on your skin that feels like a light snap from an elastic band. Redness and a slight warming of the skin are normal after treatment and usually subside within an hour.

RADIO FREQUENCY (RF) energy generates heat which stimulates collagen formation, bringing white blood cells, and stem cells to the skin around your eyes while reducing inflammation.

This is an innovative nonsurgical procedure that delivers bipolar radiofrequency (RF) technology to smaller, more delicate subdermal layers of the eye. Designed with unprecedented safety, the small size applicator, precision RF depth control, and intelligent temperature monitoring ensure a safe non-drug alternative.

This treatment aids in opening up the clogged Meibomian glands, allowing for improved tear production and secretion. RF is usually followed by a Meibomian gland expression.

RF feels like a warm massage, improving blood circulation. A bonus of the RF treatment is that it reverses the signs of aging by stimulating collagen production by smoothing wrinkles and fading dark circles

THE DRY EYE SITE OF BLUFFTON OFFERS ADVANCED TREATMENT FOR MGD & INFLAMMATION USING **FDA APPROVED** OPTILIGHT AND OPTILIGHT PLUS


1. How Many Sessions Are Recommended?

    4 to 5 sessions with specific treatment time and frequency are to be performed based on your personal condition. However, we have created a specified protocol tailored to obtain the optimal results for every patient.

2. Are There Any Side Effects or Reaction?

    Most patients do not experience any side effects, and any skin reaction typically resolves within a few hours. There is no recovery period or downtime associated with these procedures.

3. What Can I Expect?

    All treatments are performed in the office. As a result, there is no general anesthesia, no incisions, or downtime that is associated with excisional interventions. Most patients find the treatments very comfortable. We will discuss in detail with you the specifics of your customized treatment plan and how it will address your individual condition.

4.How Safe Are Treatments?

    These advanced technology treatments are FDA approved and recommended for patients who are seeking non-invasive procedures to address their symptoms. The small-sized applicators allow for treatment in small and delicate areas around the eye.

# Pricing for Custom Treatment Packages:

Radio Frequency $1400 (4 sessions)

IPL  $1400 (4 sessions)

Radio Frequency + IPL $2400 (4 sessions)

Radio Frequency + IPL + Skin Rejuvenation for Rosacea  $2800 (4 sessions)

*If additional treatments are needed, they will be complimentary (up to 2 additional)
**Some patients are unable to be treated with IPL due to skin type.
To ensure long-term results, a maintenance session will be every 6-12 months.

Chalazion (stye) removal:
$350 (up to 2 treatments included) or spot treatment only $150 per treatment

Advance technology treatment is not covered by insurance. We understand that the cost of the procedure may pose a challenge for you. Please know that we're committed to finding a solution that works for you.

Please be advised that you can use your HSA/FSA card for these treatments.

Discount options: Pay in full (cash or check) 15% off or Pay in full (credit card) 10% off

# Pre-Post Care Instructions

**Pretreatment Care**:
Avoid skin irritation or intentional skin tanning. Sunscreen is advisable when outdoors during daylight hours. Discontinue retinols and/or Botox 2 weeks before treatment. Discontinue any skin tanner 7-10 days before treatment. No fillers for 1-3 months. If having RF, be well hydrated 24-48 hours before treatment. We recommend 11 8 oz glasses of water for women and 15 8 oz glasses of water for men.

**Day of Appointment**:
Please arrive for treatment with clean skin. (no lotion, make-up, perfume, powder, or bath/shower oil, or lotion)
What to Expect (You make experience some of the following short-term effects):

- Hypersensitivity (especially to heat): Do not apply heat on the face for 24 hours.
- Avoid hot baths and showers for a few days following the treatment.
- A warm shower should be tolerable, but make sure the water is not directly hitting the skin.
- Immediately after treatment patients may notice redness on their eyes, eyelids and face. This may last anywhere from several hours to three days.
- Within 2–5 days after your IPL treatment, the dark spots and other bits of superficial hyperpigmentation will begin to rise to the surface of the skin. Flaking of pigmentation lesions may occur for 5 to 10 days. Blemishes will be naturally exfoliated from the skin's surface. It is important not to manipulate or pick at them as it may lead to scarring. Pigmented areas on the skin may appear darker. Deeper pigment will darken and then slowly fades as the body absorbs the remnants of damaged pigment.
- Reddening, swelling, severity and duration depend on the intensity of the treatment and the sensitivity of the treated area. These phenomena may be reduced with application of cooling and/or anti-inflammatory creams. You may apply an ice pack or cold compress.
- Bruising may rarely occur and may last up to 2 weeks.

**Post-Treatment Skin Care**:
SKINCARE (Days 1 to 5 after each treatment):

- Gentle Cleansers (use a clean, soft washcloth) with cool or lukewarm water
- Gentle Oil Free Moisturizer
- Serums (Growth Factor Serums, Stem Cell Serums, Antioxidant Serums)
- SPF 30 or higher applied daily
- Avoid any products with perfumes and products with alcohol or acid

MAKEUP

- Makeup may be safely applied 24 hours after each treatment session.
- Clean and disinfect your make-up brushes before applying makeup.
- Use a new makeup sponge.

If you are have any additional problems, questions or concerns, please contact our office at 843-757-9588.
Optometrists: Jola Rzegocki O.D. Jennifer Switak O.D. Robert Szypczak O.D.
Ocular Hygienist: Sabrina Siegel