

# Your Custom Treatment

# Normal Tear Film

# DRY EYE

*Ocular Surface Disease*

## Artificial Tears - Brand \_\_\_\_\_

Use artificial tears \_\_\_\_\_ times/day  
\_\_\_\_Add gel/ointment at bedtime

## Omega 3 Fish Oil OR Flax Seed Supplements

Recommended dose 2,000 - 4,000mg of Omega-3/day

## Moist Heat Therapy/Gland Expression

Recommended to apply warm/moist heat to the lids for 10 minutes/day followed by eye lid massage (Bruder Eye Mask - 20 seconds in microwave)

## Mibo ThermoFlow

In office professional sebaceous gland treatment

## Restasis/Xiidra

Use twice daily (one in both eyes each morning and night) to decrease ocular inflammation and help you produce more of your own tears

## Punctual Plugs (Temporary/Permanent)

Occlusion if tear duct is recommended to retain more of your natural tears

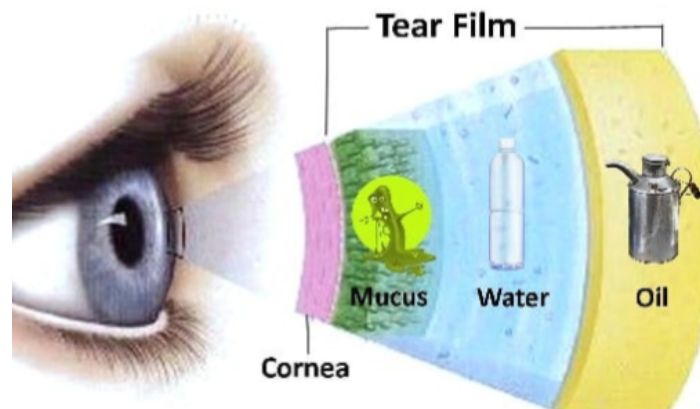
## Lid Scrubs/Lid Massage

With eyes closed, gently cleanse along the base of the eye lashes (Ocusoft or Avenova)

## Hydrate

Drink plenty of water - twice as much water as caffeinated or alcoholic beverages

## What Are Tears Made Of?



- **Lipid (oil):** Smooths the surface and prevents tears from drying too quickly. The meibomian glands produce this layer.
- **Aqueous (water):** Nourishes and protects the cornea. Most of the tear film is aqueous, and is produced by the lacrimal gland.
- **Mucin (mucous):** Helps spread the watery layer across the surface, and helps the tear adhere to the eyes.



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# What Is Dry Eye?

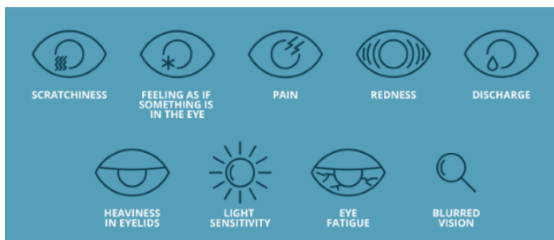
Dry eye occurs when the eye does not produce tears properly, or when the tears evaporate too quickly.

## Dry Eye Types:

1. **Aqueous Dry Eye:** a disorder in which the lacrimal glands fail to make enough of the watery component of tears to keep the eyes moist.
2. **Evaporative Dry Eye:** results from inflammation of the meibomian glands. These make the oily part of the tears that slows evaporation and keeps the tears stable.
3. **Tear Consumption Imbalance:** occurs in any of the 3 layers of tear film

## Dry Eye Symptoms:

- Stinging or burning sensation
- Sandy or gritty feeling, as if something is in the eye
- Watery eyes
- Stringy discharge
- Fluctuations of vision and/or intermittent blurry vision
- Inability to cry when emotionally stressed
- Uncomfortable contact lenses
- Decreased tolerance of reading
- Decreased sustained visual attention on the computer
- Eye fatigue



# Why Are My Eyes Dry?

## Environmental and Lifestyle Changes

- Dry climates, high altitude, and frequent wind
- Infrequent blinking, as a result of staring at video screens
- Following LASIK surgery (usually temporary)
- Allergies
- Pregnancy

## Medications and Supplements

- Can be a side effect of some medications, including allergy or cold medicine, tranquilizers, blood-pressure medicines, birth control, and antidepressants.
- Both excessive and insufficient dosages of vitamins



## Eyelid Conditions

- Skin disease on or around the eyelids, e.g. rosacea
- Symptom of chronic inflammation of the conjunctiva or lacrimal gland

## Other Conditions

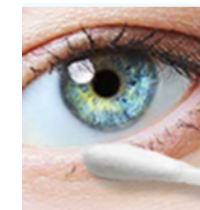
- Immune system disorders such as Sjogren's Syndrome, lupus, and rheumatoid arthritis have higher risk
- If the surface area of the eye is increased, as in thyroid disease, when they protrude forward

# How Is Dry Eye Treated?



**Supplements:** Omega-3 fatty acids (DHA and EPA) may decrease symptoms of irritation. The use and dosage of nutritional supplements/vitamins should be discussed with your primary care physician.

**Prescription Eye Drops:** Restasis and Xiidra are prescription drops available to treat dry eye. They decrease corneal damage, increase basic tear production, and reduce symptoms.



**Gland Treatments:** A regular regime of warm, moist heat followed by eyelid massage can help unblock clogged oil glands. Your doctor will recommend a treatment that best fits your needs.

**Tear Duct Plugs:** We can temporarily or permanently plug your tear ducts, which normally serve to drain tears away. This is done to reduce tear loss, by keeping your tears from leaving your eyes too quickly.



**Special Contact Lenses:** Some with severe dry eye may opt for special contact lenses, called scleral lenses. Their design protects the surface of your eyes and traps moisture.

Dry eye is a chronic condition that requires a custom prescribed treatment program. These treatments take time and require diligent follow up care to manage and control.