



FALL RIVER —VISION—

Understanding Your Tear Film Imbalance

Our tears are made up many components, but the three major parts are: oil, water, and mucous. All of these elements need to remain balanced in a specific ratio for our eyes to feel comfortable, see well, and be in perfect harmony. Most people think of “dry eye” as not having enough tears, but this is not always the case. Dry eye is an imbalance of these layers. This means your eyes can be dry and they can still be tearing and watering excessively.

Many things can disrupt the natural balance of our tears including but not limited to: decreased blink rate (usually from screen use), dehydration, weather such as a windy day, environment such as heating systems in the winter, not eating a balanced diet (not enough Omega 3 or consuming too much Omega 6), medications, abnormal body metabolism (diabetes etc), age, hormones (menopause), as well as our natural body chemistry (some people tend to run more dry vs. oily).

Because tear health is influenced by many different things, there is not a one-size-fits-all solution and we must take a whole body holistic approach to treatment. Dry eye is always chronic and progressive. It never goes away, and it always gets worse over time due to increased age and more cumulative years of being on screens. This is why it is so important to initiate treatment early, because once your eyes get worse it becomes all the more challenging to help you maintain clear vision and good eye comfort.

It is expected that some days your eyes will be worse than others and it is common to get “flare ups” of your eyes feeling dry, itchy, uncomfortable, or for your vision to fluctuate when blinking. Our goal is to help you form good routines so that you can take care of your eyes, so that they will age comfortably and you can continue to enjoy screen time, contact lenses, and everything else you would like.

What are Meibomian Glands?

Our natural oil layer of the tear film is produced by glands inside our lids called meibomian glands. Each upper and lower lid can have 40-60 of these glands. The glands are like little tubes inside our eyes lids and they are filled with oils. Healthy oils are soft like cooking oil. When our eyes blink, the blink has a suctioning mechanism that pulls this soft oil out of our glands and into little pores on our lid margin and into our eye.

Meibomian Gland Dysfunction (MGD)

The vast majority of tear film imbalance (over 70% and rising) is caused by Meibomian Gland Dysfunction, more commonly called MGD. MGD occurs when our natural oils aren't being released into the tear film as they should be and our oils remain stuck in the



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lid. This is usually accompanied by the oils becoming thickened like butter. All the factors that can cause tear film imbalance can play a role. Blockages of these glands can lead to painful lid styes, heavy eyelids, pain or pressure in the eyes, inconsistent vision that changes with the blink, stinging/watery eyes, or sometimes no symptoms at all.

If these glands stay blocked for too long, they can die off and atrophy. Once this happens it is nearly impossible to get them back. People who lose too many glands need to be on special tear replacement eye drops around the clock for the rest of their lives. This is why it is important to maintain good lid hygiene to keep your glands functioning for as long as possible.

(MGD) Treatment

Since this is becoming such a widespread issue, there are a lot of new treatments coming on the horizon such as special drops and in-office procedures, but the backbone of all treatment is good lid hygiene with warm compresses. Everyone who owns a phone or a computer should be doing warm compresses each day- after all, we are looking at screens each day. Warm compresses are akin to brushing your teeth- you need to repeatedly do this for good maintenance. The purpose of warm compresses is to melt the stagnant oil in your lids. This oil is something your eyes constantly need, and it is constantly being made by your body. If you stop, the oil can build up again.

Warm Compress Instructions

I recommend picking up a doctor approved, reusable warm compress eye mask. With good care, this should last you a very long time. Masks are filled with beans or gel and need to be heated in the microwave to 120 degrees F. This equates to about 20-30 seconds of heating time for most microwaves. Most microwaves have splatter, so I heat my mask up on a clean plate so it stays sanitary. After heating, check the mask to make sure it is very warm but not hot enough to burn you. Put a timer on for 10 minutes and put the mask over your eyes for 10 solid minutes of warm compress time. Sit back, relax, and enjoy good ocular health and comfy eyes ☺ .

Do these compresses twice a day to help prevent styes and promote healthy eyes. If you build it into your routine (after you brush your teeth etc) it will be easier to remember. It does not matter what time of day you do it as long as you are consistent. When you are done, you can get the most value if you do a quick lid massage in small circles and then press toward your lid margin to try to squeeze more oil into your eye.



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WCP Tips:

- It's normal to feel like your vision is blurry for a few minutes after you finish your compress mask- if you do, great job! That probably means you got a lot of oil out. You might want to think about putting a paper towel between the mask and your eyes to absorb extra oils that may come out so you can keep your mask clean.

- If you are like me and 10 minutes of sitting still feels like an eternity, you can compress one eye at a time while you are working, relaxing, or watching TV.

-Some people ask if they can use a wet facecloth - NO! Recent studies have shown that facecloths do not get hot enough and they do not retain heat well enough. Some people ask about tea bags- this is introducing something foreign to the eye and I would not recommend it. Some people ask about masks that you can plug in. This is okay if you don't have a microwave, but heat from a microwave is best.

- These glands are in the back of your lid, so you really do need to give it the full ten minutes in order to let the heat penetrate all the way through your lid.

-Be patient. Warm compresses are re-training your eyes to produce natural oils. This usually takes 2-3 months of consistent effort in order to get results.

-We can speed up the process by adding an Omega 3 supplement if needed which will help chemically break down the oil and make the compresses more effective.

- If your eyes are feeling so dry they are uncomfortable, you can use artificial tear drops (try to get oil based) while you wait for the compresses to work their magic. The goal of this therapy is to decrease the number of drops you need so the eyes can function better on their own. However, if you have multiple types of tear film imbalance, you might not be able to completely get rid of drops.

In-Office Expression

Most times, if you are consistent with warm compresses, you will be ready to do an in-office expression in about 3 months. At this visit, you will bring your warm compress mask with you and we will heat it up for you at the office. After your glands warm up, your doctor will use a paddle to get deeper into those glands and get even more oil out to fully unblock your lids. Everyone is different, but most expressions have patients feeling better for about 3-6 months. This procedure is "preventative" and usually self pay. We do not do it unless your doctor sees that it will be successful. If things still look blocked to the point that in-office expression will not be successful, or if you have not been consistent with the compresses, we will forgo expression and adjust our plan accordingly.