

Dry Eyes Web Page

ADVANCED VISION CARE, INC, IS THE REGION'S LEADER IN DRY EYE CARE

Dry Eye Symptoms

Up to 30% of people over the age of 50 have dry eyes. Are you one of them? But not all dry eyes are alike. In fact, not all dry eyes feel dry. The following are some of the words people use to describe their eye symptoms - any of which could mean dry eyes for you, too.

- Dryness
- Grittiness
- Scratchiness
- Soreness
- Redness
- Irritation
- Burning
- Watering
- Eye fatigue
- Fluctuating vision



Dry Eye Causes

Sorry to tell you this, but the biggest reason for dry eyes is that nasty thing we call aging. Other than aging, though, there are many causes for dry eyes, including certain medications (see below), skin diseases, hormonal factors, eye injuries, allergies, poor blinking or eyelid closure, long-term contact lens wear, immune disorders such as rheumatoid arthritis, chronic eye inflammation, and after some eye surgeries.

Medications causing dry eyes

There are too many eye medications that could contribute to dry eye symptoms to list here. However, below are some of the major ones:

- Blood pressure medications - such as
 - ACE inhibitors - such as benazepril (Lotensin), captopril (Capoten), enalapril (Vasotec, Epaned), fosinopril (Monopril), lisinopril (Prinivil, Zestril), moexipril (Univasc), quinapril (Accupril), ramipril (Altace).
 - beta blockers - such as acebutolol (Sectral), atenolol (Tenormin), bisoprolol (Zebeta), metoprolol (Lopressor, Toprol-XL), nadolol (Corgard), nebivolol (Bystolic), and propranolol (Inderal LA, InnoPran XL).

- thiazides or diuretics - such as hydrochlorothiazide (HCTZ), furosamide, and HCTZ/triamterene.
- Antihistamines and Decongestants - such as
 - over-the-counter antihistamines including diphenhydramine (Benadryl), chlorpheniramine (Chlor-Trimeton), and loratadine (Claritin).
 - over-the-counter cold preparations, sedatives, antidiarrheals, and nasal decongestants.
- Hormones for post-menopausal symptoms and for birth control.
- Anti-anxiety medications - such as benzodiazapines including alprazolam (Xanax), lorazepam (Ativan), chlordiazipoxide (Librium), and diazepam (Valium).
- Antidepressants - such as amitriptyline (Elavil and Endep), bupropion (Wellbutrin), citolpram (Celexa), doxepin (Adapin and Sinequan), escitalopram (Lexapro), paroxetine (Paxil), fluoxetine (Prozac), sertraline (Zoloft).
- Pain relievers - such as
 - over-the-counter ibuprofen (Addaprin, Advil, Ibu-Tab, Midol, Nuprin).
 - prescription propoxyphene/acetaminophen (Darvocet-N), and hydrocodone/acetaminophen (Lortab).
- Dermatologic medications - such as isotretinoin for acne, psoriasis, and leukemia.
- Gastrointestinal medications - such as lansoprazole (Prevacid), omeprazole (Prilosec), esomeprazole (Nexium), ranitidine (Zantac), and cimetidine (Tagamet).
- Chemotherapy medications - such as cyclophosphamide (Cytoxan).
- Antipsychotic medications - such as thioridazine (Mellaril).

So, what can you do on your own about your dry eyes?*

Here are the things that you could try for your dry eyes before you make an appointment with us for an evaluation:

- Humidify your house, especially in cold winter months.
- Avoid air that is blowing directly on you.
- Drink plenty of water.
- Blink more frequently. Be sure your blinks are complete, not partial.
- Change your pillowcase weekly.
- Daily place a warm washcloth over your eyes for 8-10 minutes, then gently cleanse and massage the edge of your eyelids for 10 seconds.
- Use an artificial tear drop up to 4 times daily (see below).

*But remember, these only improve the symptoms but do not properly address the root of the problem.

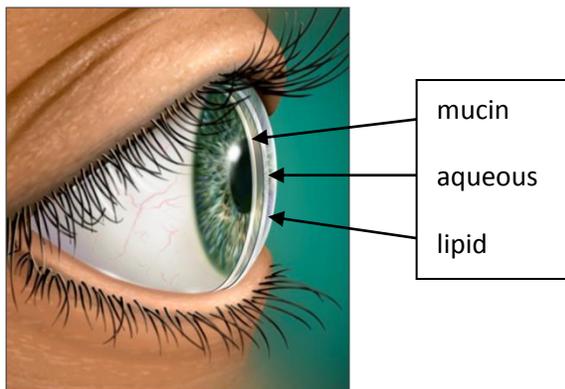


Which artificial tear brand might you try?

There are a zillion and one (okay, maybe not quite that many) brands of eye lubricant drops on the market. Some are watery, some are slightly gooey, some are a little oily, some have preservatives. One of these types may work better for you than another. Without an eye exam, it's hard to advise you on a website. You're welcome to try any one of them if you'd like. If it feels good, great! For the most part, though, you should not use them any more than 4 times per day, and you should avoid the ones that remove redness from your eyes unless an eye doctor has recommended this. If you do come in for an eye exam, bring the bottle(s) that you've tried with you.

Normal tears / Abnormal tears

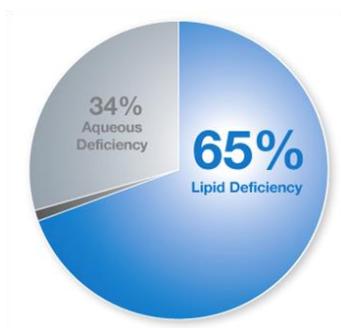
In addition to helping focus our vision, our tears also protect our eyes by forming a barrier over the outer surface. If not well protected, our eyes are subject to damage from debris in the air as well as the air itself which can dry the eye out. There are three main layers that make up normal tears: mucin layer, aqueous (water) layer, and lipid (oil) layer. All three layers are needed in their proper quantity and in their proper quality to keep the front surface of the eye happy and healthy and functioning properly. If any of the three are not right, the eye (and the person) suffers.



When the tear layers are not right

There are two main types of dry eyes:

- 1) Aqueous Deficiency - the tear glands don't make enough water.
- 2) Lipid Deficiency - meibomian (lipid or oil) glands don't make enough oil or the oil quality is poor.

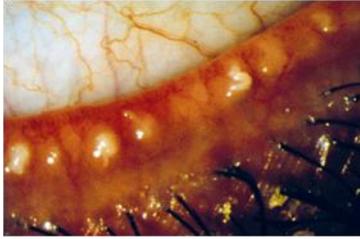


The oils (meibum) are produced within the edges of the eyelids in special glands called meibomian glands. The oils that are produced are expelled into the tear layer when the upper and lower eyelids meet together when we blink. These oils protect the watery portion of the tears from evaporation.

If the oils produced are of poor quantity or poor quality (called "Meibomian Gland Dysfunction"), they do not adequately protect the watery portion of tears and the eye dries out quickly. This can lead to all the symptoms listed above.



Normal, clear meibum



Abnormal, thickened meibum



Normal meibomian glands

MGD - it's common

In recent years, much has been learned about treating dry eyes and MGD as a disease condition rather than just an annoyance (to the doctor and the patient). Meibomian glands naturally lose some of their ability to function with aging. Poor or incomplete blinking is also thought to be a major cause of meibomian gland clogging. This is occurring more frequently in the age of computers and cell phones. In addition, hormonal shifts with pregnancy or menopause, poor blinking, chronic blepharitis (inflammation of eyelash edge from many causes), skin conditions (such as rosacea), chronic conjunctivitis, immune system disorders (such as psoriasis, rheumatoid arthritis, and Sjogren's syndrome), antidepressants, antihistamines, and long-term contact lens wear can also lead to meibomian gland dysfunction.



Mild shrinkage and mild obliteration of meibomian glands.



Moderate shrinkage and obliteration of meibomian glands.



Severe shrinkage and obliteration of meibomian glands.

MGD - it naturally gets worse

We now know that if you let MGD run its natural course, it will get progressively worse. If left untreated or partially treated, permanent obliteration and shrinkage of the glands can occur. When severe, this can lead to permanent damage to the eyelids, the eye surface, and to the vision.

Traditional diagnosis and treatment

In the past, the diagnosis of dry eyes was based on a patient's complaints. If you complained, the traditional treatment centered around covering up your symptoms. This typically took the form of saline-based compounds known as "artificial tears" and also warm compresses on the eyes. Sometimes this is all that is needed. But we know now that this rarely solves the problem.

Advanced Eye Care diagnosis and treatment

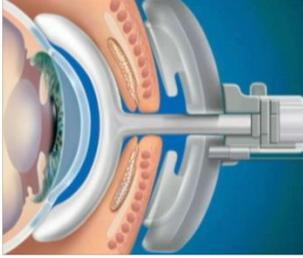
Today, at Advanced Vision Care, there are many new state-of-the-art diagnostic tools to analyze your eyes and tear film to assess your dry eye condition. These tests might include measurement of the saltiness of your tears, the quantity of your tears, the drainage of your tears, any inflammation within your tears, the coating ability of your tears, and the extent of temporary or permanent damage to your eyelid structures and to your eye surface due to problems with your eyelid health or tear gland health. Based on our findings and assessment, we can offer you a treatment designed specifically for your particular condition. We offer the latest treatment options: punctal plugs, neutraceuticals, moisture goggles, specific artificial tear recommendations, oral and topical prescription medications aimed at treating the source of the problem, therapeutic membranes to supplement healing properties, and eyelid treatments including thermal pulsation treatment (LipiFlow®).



LipiFlow® activator in place for treatment of MGD.

More on LipiFlow® - available now at Advanced Vision Care

Because Meibomian Gland Dysfunction (MGD) is the most common cause of dry eye, and because it is a progressive condition (gets steadily worse and worse), treating dry eyes with artificial tears alone or in combination with warm eyelid compresses may relieve symptoms for a short time, but that does not stop or improve the downward course of this condition. Of all the wonderful treatments recently available, the only one that has been FDA approved to treat MGD is LipiFlow®. LipiFlow treatment unclogs the meibomian glands more effectively than using warm compresses. This can result in a rejuvenation of obstructed glands and can "reset" the glands.



Schematic drawing showing positioning of LipiFlow® activator over the eyeball (providing protection) and between the eye lids (providing warmth and massage).

LipiFlow® treatment

LipiFlow safely and effectively treats meibomian gland obstruction in both upper and lower eyelids simultaneously in an in-office procedure. Special activators are placed over the eye to insulate and shield the eyeball itself while both the upper and lower eyelids are warmed from the inside out. Once the eyelids are warmed enough to liquefy obstructed glands, LipiFlow inflates and deflates in such a way as to massage the eyelids to completely "milk" clogged glands and alleviate the obstruction. The treatment procedure takes only 12 minutes and enables the patient to experience little to no discomfort. The effect of the treatment is expected to last between 9 and 18 months or longer.

Conclusion

Dry eye conditions affect many people, especially over the age of 45. Dry eyes may present in a number of different ways and from a number of different causes. Depending on the cause and severity, symptomatic treatment of dry eyes with occasional lubricant eye drops may not be enough. In fact, since certain types of dry eye conditions progressively lead to permanent damage to the eyelids and eyeball surface, ignoring the condition or treating merely the symptoms is not wise.

If you are one of the millions of people with dry eye symptoms and your symptoms remain despite trying those things listed in the first few sections of this page, have your eyes evaluated by one of the doctors at Advanced Vision Care, Inc.

Dry eye care is one of our specialties!

Call 419.991.3937 to schedule a dry eye evaluation.