

Dye Eye Syndrome

What is it; what are its causes; and how is it treated?

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Summary: Scratchy, gritty eyes seem to become more common as we age. The reasons are numerous, but all of them produce the common condition known as “dry eye syndrome.” This is an eye problem that should be considered far more than just an annoyance. Understanding it will help you better protect your eye health.

Perhaps the most common eye problem aging patient’s face is the “dry eye syndrome.” It is an acute or chronic problem associated with many causes including environmental factors, some eye and systemic diseases, certain medications (topical or systemic like antihistamines), hormonal problems in women, contact lenses and refractive surgery. However, aging, especially over 65 is undoubtedly the leading cause.

What is dry eye syndrome?

The delicate surface of the eye is protected by a very thin and fragile tear film. This film helps lubricate and protect the ocular surface. Any compromise in the quality or quantity of this tear film jeopardizes the effective lubrication and protection of the eye’s surface. This results in symptoms of irritation, scratchy, dry feeling, burning, tearing and redness (inflammation).

There are actually two kinds of tears, one for comfort (lubricating tears) and one for protection (reflex tears). Lubricating tears keep the ocular surface moist. They also provide some degree of natural protection as well against infectious agents like common bacteria and other airborne irritants.

But when the eye becomes irritated from things like smoke, foreign substances, injury (scratches, burns, etc.) and even “emotional irritation,” the tear glands of the eyes (called the lacrimal and accessory glands) produce reflex tears or “watery eyes.” This “reflex” response helps protect the eyes and attempts to neutralize the irritating cause.

What are the causes of dry eye syndrome?

Ironically, even the dry eye syndrome itself can serve as an irritant that produces reflex tearing and watery eyes. Thus, paradoxically, one of the symptoms of “dry eye” syndrome could be watery eyes. As a matter of fact, when we diagnosis a watery eye as dry eye syndrome (from other signs and symptoms we’ll discuss below), we call the watery symptom “paradoxical tearing.” But it’s important to understand that none of these reflex tears from any cause provide adequate protection as normal lubricating tears do and thus, with dry eye syndrome the ocular surface is at risk for irritation, inflammation and infection.

Some causes of dry eye syndrome are transient or temporary. In these cases, the condition itself will self limit in the absence of its cause like leaving an adverse environment of smoke and irritants in the air or discontinuing a medication which might be drying your eyes. Some causes, however, are not as easily removed or even upon removal, especially if the eye has become inflamed, the signs and symptoms of the dry eye syndrome may persist.

How is dry eye syndrome treated?

Of course, the most important treatment for dry eye syndrome is identifying and removing the aggravating cause. If accompanying treatment is required along with or after removal of the cause, or if the cause cannot be removed (an eye or systemic disease producing dry eye syndrome), the most common approach is artificial tears. These are usually topical eye drops (sometimes ointments as well) that can be used frequently to substitute for the reduced tear film and provide lubrication and protection.

Sometimes, the “lacrimal puncta” (openings to drainage tubes at the inner corners of the eyes) can be mechanically blocked to backup additional tears onto the ocular surface. These puncta can be temporarily or permanently blocked by “lacrimal plugs,” lasers or cauterization (the later two are always permanent).

Because so much of dry eye syndrome is systemically related (hormones in women, diseases, etc.) we have begun to find that certain nutritional supplements may help varying forms of chronic dry eye, especially in aging. This supplementation may be provided by simple daily vitamin supplements or your eye doctor might prescribe a specific vitamin or mineral which has been shown to be beneficial for the type of dry eye syndrome you may have.

As the reduction or lose of the tear film in dry eye syndromes reduces protection to the ocular surface against common bacteria, occasionally, especially in chronic forms, we may prescribe a topical or oral antibiotic to reduce the risk of secondary infections to the ocular surface membranes including the conjunctiva and cornea. Also, if the dry eye syndrome is producing redness and inflammation (conjunctivitis or keratitis), an anti-inflammatory eye drop (steroid drops) may be needed to treat the surface tissues.

Because the eyes have constantly exposed surfaces, you can understand how important tear film protection is. Besides being uncomfortable for the patient, the dry eye syndrome must be viewed as a distinct risk to the health of the eye itself. So those symptoms of dry, scratchy eyes should never be neglected, especially in the aging eye.