

Dry eye is a common problem that often 11-22% of the general population, accounting for about 40% of all visits to the eye M.D. Its effects can vary from being a nuisance to a lifestyle-altering phenomenon.

Multiple causative factors exist for dry eye including age (e.g. senior citizens), gender (e.g. females more than males), environmental influences (e.g. forced air conditioning or heating), systemic medications with drying side effects (e.g. antihistamines), postsurgical situations (e.g. refractive surgery) and extended “visual tasking” (e.g. computer work). Severe dry eye resulting from inflammation can be associated with systemic diseases like Sjogren’s syndrome, lupus, and rheumatoid arthritis.

Dry eye syndrome is characterized by a breakdown in the tear film. Common signs and symptoms can include dryness, foreign body sensation, grittiness, pain, photophobia, burning, stinging and blurred vision. Despite being widespread, it often goes underdiagnosed. Some patients may experience ocular discomfort similar to that seen with dry eye but not manifest clinical signs of the disorder. A complete medical history and a detailed lifestyle assessment obtained by questionnaire is necessary to identify this group. The distinction between allergic conjunctivitis and dry eye is crucial to realize as both conditions share some signs and symptoms but require different therapies.

Effective management of dry eye requires comprehensive examination of the tear film’s three layers (lipid, aqueous and mucus). The outer lipid layer retards evaporation while the innermost mucin layer binds the tear film to the outer corneal epithelial surface. The middle aqueous layer provides nutrients to the cornea. If the tear film is unhealthy, then the corneal epithelial cells are damaged, leading to sloughing of the tear film and ensuing corneal surface damage.

Dry eye treatment begins with patient education and behavior modification to avoid aggravating factors. A trial of one or more artificial tear products may be indicated. Each preparation

has a different mechanism of action and positively impacts one or more of the tear film layers. Some formulas include Soothe® and Refresh Endure® that enhance the lipid layer or Genteal® and Refresh® Tears that thicken the aqueous layer and limit evaporation. Systane® acts on the entire tear film to strengthen its ability to coat the cornea. Permanent or temporary punctual plugs may be necessary to delay tear film drainage from the eye and increase contact time with the cornea. However, the quality of the tear film may suffer.

A prescription dry eye medication like Restasis® may then be of value. It is the only FDA approved product indicated for moderate to severe dry eye. It is most effective when used in combination with an artificial tear product. A potential side effect of discomfort upon instillation may be controlled with a prescription topical steroid or non-steroidal product like Alrex® or Acular LS®. Dietary changes such as increasing intake of omega-3 fatty acids may also be of benefit. Other prescription products awaiting FDA approval (i.e. diquafosol, pimecrolimus, and rebamipide) may expand the treatment options available to combat dry eye.

Until then, if you suffer from any of the signs and symptoms of dry eye, be sure to see your eye M.D. for a thorough evaluation. Don't suffer any longer!