

# TREAT DRY EYE TO PREVENT CONTACT LENS PROBLEMS

Multifocal lenses are challenging enough without adding a dry eye to the mix.

BY SCOTT SCHACHTER, OD



It is 4:00 PM and you are ready to see your final patient of the day. You have a 5:30 PM meeting that should be no problem. You take a look at your schedule and see that your next patient is a 50-year-old woman, a heavy computer user, emmetropic,

presbyopic, who wants to be fitted with multifocal contact lenses. You sigh and accept that you will be late to your meeting.

Multifocal contact lenses can be challenging enough, but adding a dry eye into the mix can make it logarithmically more difficult. A tear film of the right quantity and quality is crucial to comfort and vision, especially in multifocal lens wearers for whom compromise is already considered the norm.

Don't give up hope on that dinner meeting just yet. Let's talk about ways to get you there on time and keep your patient happy as well.



## Tip No. 1: Look carefully for dry eye.

The Beaver Dam Offspring Study found that prevalence of dry eye symptoms in the study population was 14.5% overall (14.1% in those aged 21 to 49 years, 15.2% in those 50 years and older) and was significantly higher in women (17.9%) than men (10.5%,  $P < .0001$ ; Figure 1).<sup>1</sup>

As a computer user, your patient is even more likely to experience dry eye. It is widely known that blink rate decreases with prolonged computer use. Contact lenses can challenge an eye that is borderline dry, ultimately leading to contact lens dropout.



## Tip No. 2: Ask the right questions.

All of my patients fill out the Standard Patient Evaluation of Eye Dryness questionnaire, which, as its name implies, can be taken and scored quickly. A score of 7 or higher prompts further evaluation. The Standard Patient Evaluation of Eye Dryness questionnaire has been shown to be a valid and repeatable instrument for measurement of dry eye symptoms.<sup>2</sup>

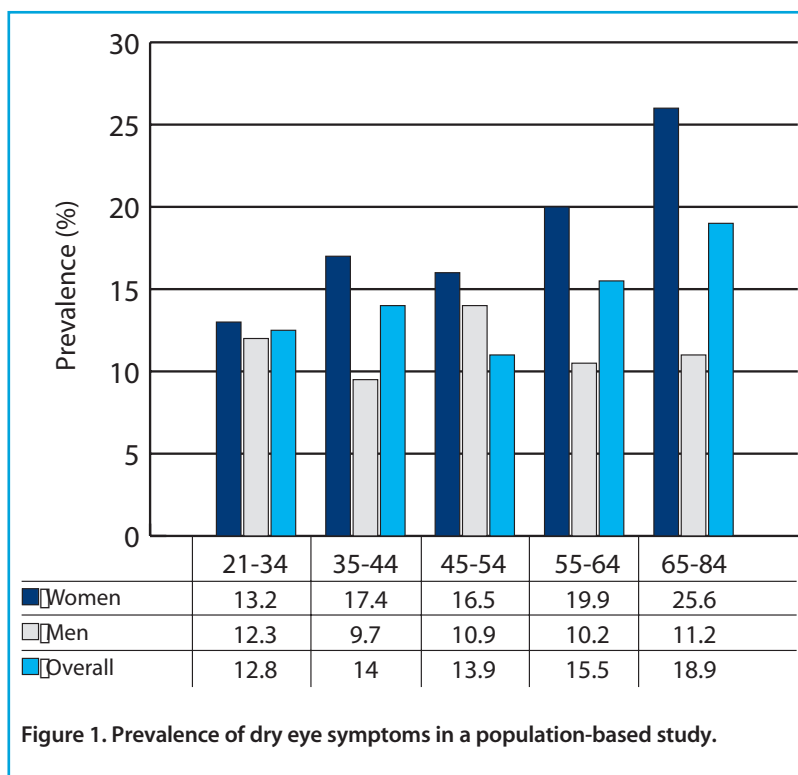


Figure 1. Prevalence of dry eye symptoms in a population-based study.



If your patient has dry eye disease, then treat the ocular surface before considering contact lenses. If there is no dry eye present, fit the patient immediately for contacts.

“ In the exam room, I stain the cornea with fluorescein and lissamine green simultaneously.



**Tip No. 3: Measure important parameters.**

Test the patient's tear quantity and quality and stain the eye. At our office, we use the Zone Quick Phenol Red Thread (FCI Ophthalmics) test for quantity, and we either test osmolarity with the Tear Osmolarity Test (TearLab) or look for inflammation with Inflammadry (Rapid Pathogen Screening) point-of-care testing, which measures the level of matrix metalloproteinase 9 (MMP-9) in the tears. Then, we scan the lower meibomian glands with the slit lamp-mounted Meibox meibographer (Box Medical Solutions). This is all done by technicians before the clinician's examination.

In the exam room, I stain the cornea with fluorescein and lissamine green simultaneously. In addition, I use the Meibomian Gland Evaluator (TearScience) to evaluate the quality of the meibum, which can range in viscosity from olive oil to toothpaste consistency.



**Tip No. 4: Treat appropriately.**

If I see gland atrophy and a thickened meibum, I recommend treatment with LipiFlow (TearScience). This technology has been extensively researched, and a recent

## Methods of Treatment

If your patient appears to have dry eye, start treatment with either cyclosporine or lifitegrast ophthalmic solution 5% (Xiidra, Shire) and have them check back in a few weeks. Educate your patient about the importance of a properly hydrated eye for successful contact lens wear. As needed, add warm compresses and nutraceuticals to their care regimen. Bruder masks may be a good choice, as they retain heat longer than most alternatives.<sup>6</sup> For nutritional support, gamma-linolenic acid (HydroEye, ScienceBased Health) has been found to improve signs and symptoms at 2 months.<sup>7</sup>

paper showed improved gland function for at least 1 year after treatment.<sup>3</sup>

At this initial exam, I am trying to decide if the tear quality and quantity are adequate to support successful contact lens wear. The most important thing I want to know is whether inflammation is present. A positive result on the Inflammadry test (RPS Diagnostics) for MMP-9 means that the tear film is essentially toxic to the eye. If MMP-9 is negative, inflammation may be present on the Th17 pathway. Look for lissamine green staining, a waxy tear film, or hyperosmolarity to know whether this pathway is involved, as goblet cell apoptosis is associated with Th1.<sup>4</sup>

If inflammation is present, treatment will be required before lens wear is possible. Hom found that, in patients receiving 5 weeks of treatment with cyclosporine ophthalmic emulsion 0.05% (Restasis, Allergan), contact lens wearing time increased by 1.9 hours per day, and corneal staining was significantly decreased.<sup>5</sup>

### AND IF THERE IS NO DRY EYE? GET FITTING!

In the absence of dry eye, fit this patient today for contact lenses.

I have had excellent success with the Ultra for Presbyopia (Bausch + Lomb) contact lenses. The lens is made of polyvinylpyrrolidone, which is excellent at resisting dehydration. I find that the optics are superior to anything that I have tried before. This is a three-zone progressive with a center-near aspheric lens design. Power profiles are consistent through each range. As with all lens models, users should follow the fitting guide. Contact lens manufacturers invest heavily in helping practitioners by developing their fitting guides so don't toss the owner's manual.

If the patient's problem is on the ocular surface, fix the eye first, rather than being a "brand chaser," and your chances of success will be far greater. ■

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