



# A GAME-CHANGING APPROACH TO HELP OVERCOME CONTACT LENS DROPOUT

How point-of-care testing can grow your contact lens practice by aiding in lens selection, treatment recommendations and patient education.

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**C**ontact lens dropout rates have not changed appreciably in nearly two decades. Although new materials and preservative-free products have helped, neither was the tipping point we hoped for in contact lens practice. What's more, as clinicians, we now face even greater challenges than we once did. The explosion in digital device use has placed an unprecedented burden on the ocular surface, erecting yet another hurdle to comfort. If there is one thing we have learned about contact lens dropout, it is this: We are less likely than ever to overcome it using traditional strategies. It's time to start thinking outside the box.

In our clinical experience, and in that of many of our forward-thinking colleagues, the most effective way out of what is otherwise sure to be a downward spiral is to catch as many patients as we can as they come in for their annual exams. In other words, we need to identify which patients are at risk of dropping out prior to first fittings and before refits.

In this three-part series, we will explore how osmolarity testing

can be the catalyst for change that the contact lens industry has long sought. This surprisingly simple approach is both practical and profitable. In this first installment, we will make the case for how point-of-care osmolarity testing can benefit your contact lens practice. We will also explore different ways you can integrate it into your practice routine. In parts two and three, we will explain how osmolarity can help guide lens selection, setting the stage for better patient education, less dropout and a better bottom line in terms of reimbursements.

## STRATEGIES FOR TESTING NEW WEARERS

While many clinicians believe that osmolarity testing is most appropriate for monitoring disease progression, an even better use of tear osmolarity testing is to determine whether a patient has dry eye disease, especially in its early stage when other dry eye signs may give conflicting information. In a recent study by the National Health Service (Great Britain, UK), osmolarity was shown to have the highest positive predictive value for dry eye disease compared to other routine dry eye diagnostic

tests.<sup>1</sup> Furthermore, TearLab Osmolarity testing is not only the most predictive test for dry eye, it's also the fastest, requiring fewer than 30 seconds from test to result.

There are several ways to approach dry eye diagnosis at an initial lens fitting. Some practices find that the best approach is to perform osmolarity testing on every new contact lens patient using the TearLab Osmolarity System while others wait to perform osmolarity testing pending other indicators, such as a poor score on a subjective questionnaire.

If your decision to perform osmolarity testing depends on subjective symptoms or surveys, bear in mind that dry eye disease is often asymptomatic—until the ocular surface is “challenged” by a contact lens, so adopting a protocol like this requires greater clinical diligence. In fact, research suggests that relying on symptoms to diagnose dry eye would produce a missed or incorrect diagnosis more than 40% of the time.<sup>2,4</sup>

## HOW TO APPROACH REFITS

Have 50% of your current lens wearers mentioned that they have dry eye symptoms? Probably not. Yet dry eye affects nearly 30 million

Americans—including 50% of all contact lens wearers.<sup>5-9</sup> The “don’t ask, don’t tell” strategy is not working for the contact lens industry and largely explains why about 16% of contact lens wearers drop out every year.<sup>10-11</sup>

A more proactive approach is clearly required. We suggest one of three options: Ask the right questions, perform diagnostic testing on all lens wearers or, better yet, do both. The following probing questions can help tease out information that will let you know whether a patient is at risk of dropping out:

- *Do your eyes ever feel dry or uncomfortable?*
- *Are you bothered by changes in your vision throughout the day?*
- *Are you ever bothered by red eyes?*
- *Do you ever use or feel the need to use drops, especially after prolonged lens wear?*

A yes to any of these is a red flag. But even if a patient reports none of these problems and is currently asymptomatic, osmolarity testing might reveal early signs of dry eye.

One of the most convenient aspects of the TearLab test is that it can be performed while wearing contact lenses. When this quick test shows that osmolarity is high, you can use this information to guide lens selection and treatment. And, since the TearLab provides an objective score—correlating well with severity—it helps encourage compliance with your recommendations. All you have to say is, “This test shows that your tear chemistry is out of normal range, which indicates that you have dry eye.” Then you can detail the steps you’ll take to lower the “score” and help patients under-

stand why you recommend a certain lens option, such as a daily disposable modality, which may help with comfort. We’ll discuss this in greater detail in Part 2 of this series.

### SPECIAL CONSIDERATIONS FOR PRESBYOPES

Multifocal contact lens patients can be one of the greatest profit centers in an optical practice, but can also be one of the most challenging ones since this group is at particularly high risk of developing dry eye. On a case-by-case basis, success with a multifocal contact lens almost always hinges on ocular surface integrity. For this reason, we recommend that all patients who wish to be fit in a multifocal lens be tested first with the TearLab Osmolarity System.

If osmolarity reveals that there’s a barrier to successful wear, we treat it first, so we have the best chance of keeping the patient happy in their lenses. The osmolarity score also aids in setting realistic expectations with a multifocal lens. When patients know that their osmolarity score is too high, they’re less likely to conclude that multifocal contact lenses—or worse, your clinical skills—are to blame.

In some cases, when scores are high or there is significant disparity between the left and right eye, we may recommend shorter wearing times or simply waiting for the score to improve before moving the patient to a multifocal lens.

### THERE’S NOTHING WRONG WITH DOING WHAT’S RIGHT

Whether a patient is male or female, young or old, and wearing a daily or a specialty lens, we can help

maximize their contact lens success by proactively identifying and treating patients who have tear film instability—indicating a compromised ocular surface. Osmolarity testing allows us to catch early patients at risk of dry eye, fit patients in lenses that they’re most likely to wear with success, and set appropriate expectations. It shows the need to address contact lens fitting from a proper and essential clinical perspective, and differentiates you from the “800 Contact Lens” competition. This, in turn, lessens the likelihood of contact lens dropout and makes for happier, more loyal patients. In fact, the beauty of this approach is that everyone wins. Patients succeed, contact lens practice flourishes and doctors enjoy doing what they do best—offering complete vision and wellness solutions.

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### OSMOLARITY EXPLAINED

As the volume of the aqueous component of the tear film declines, the salt concentration in tears increases. This brings the tear fluid out of homeostasis, and adds insult to the ocular surface. The TearLab test indicates whether or not the patient has a higher salt content than normal. Therefore, hyperosmolar status, resulting from either decreased tear production or an increased evaporative state, indicates reduced aqueous levels and is an important indicator of ocular surface health.\*

\*Baudouin C, Aragona P, Messmer EM, et al. Role of hyperosmolarity in the pathogenesis and management of dry eye disease: proceedings of the OCEAN group meeting. *Ocul Surf.* 2013 Oct;11(4):246-58.