

# How to Implement Tear Osmolarity Testing in a Practice

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The implementation of any new process into a busy ophthalmology practice is never easy. To succeed, an organized approach with a timeline has to be prepared. Even with a 'perfect looking' plan on paper, it will take some time to work out the details and overcome the unforeseen hurdles.

## How to start Tear Osmolarity implementation?

**Physician education:** Start by educating both the MDs and the ODs in your group. Without their support and understanding of tear osmolarity and its importance in the diagnosis of ocular surface disease, the plan will not succeed. It is key for the physicians to understand how to interpret the osmolarity data and how to use it to optimize their treatment plans.

**Staff education:** The staff needs training on how to perform the test. We invited our TearLab® reps to do an in-service on two different occasions a few months apart for all of our staff after patient hours. The staff was able to

practice on each other and ask all the questions they could think of.

**Set-up and calibration:** We realized that one unit for a busy practice created a bottleneck in the patient work up process. Therefore, we quickly expanded the number of TearLab units we use in our offices. The calibration is key for the temperature sensitive test cards to ensure accurate results. The systems, test cards, and calibration supplies should be stored at room temperature. The tear osmolarity results may not be accurate if the temperature between the components varies or if they are exposed to excessive heat. We check each unit for function and calibration using an electronic check card every day before the start of patient hours. We also use control solutions to check every batch of test cards for accuracy anytime we receive a new shipment. If the results from any of these quality control checks are not within the accepted range, we do not use the test cards until the issue is resolved. Following recommended laboratory protocols, we record all of our calibration data in quality control logs.

**Tear Osmolarity Protocol:** The staff needs a directive on when to perform the test and on whom to perform the test since tear osmolarity has to be done prior to the instillation of any drops into the eyes. We came up with a tear osmolarity protocol which we distributed to all staff and discussed at length during staff meetings.

With the above outlined plan, we were very successful in quickly integrating tear osmolarity into our practice.