

At the New England College of Optometry (NECO), preparing the next generation of optometrists requires equipping them with a comprehensive skill set for practice.



Practice Information: New England College of Optometry, Boston MA
Optometrist: Timothy Bossie, Director of Owned Clinics & Outreach Services, Attending OD
Device: *California*
Reasons for Purchase: Education, clinical enhancement, increase patient flow

Timothy Bossie, OD, an Assistant Professor of Clinical Optometry at NECO, observes that such proficiency should encompass being comfortable with cutting edge diagnostic technology. Bossie, who serves as a preceptor for 2nd, 3rd and 4th year students, shares that a recent implementation of the Optos *California* ultra-widefield (UWF™) imaging system has proved to significantly enhance examination of the retina, as well as, improve productivity in the busy teaching clinic.

The NECO clinic provides multiple specialty services including primary care, contact lenses, myopia control, vision rehabilitation, post-concussion care and low vision. The *California* device was quickly embraced by the providers at the clinic. The **optomap** imaging was integrated in a broad application, used primarily as a screening tool and for baseline images in the primary care setting, but also in the low vision clinic for documentation and diagnosis with the population that presents with a variety of

preexisting retinal conditions. Bossie notes that being close to Boston University means that a majority of NECO patients are young students and college educators who are often pressed for time and wish to defer dilation to expedite a routine visit. He points out that in these cases the **optomap** technology allows the patient to be screened quickly with a comprehensive view of the retina which allows the doctors to determine if there is any potential issue that would necessitate dilation and further examination.

“ I am blown away by how I can get a really good ultra-widefield view of the retina and then, with the **OptosAdvance** software, zoom in and out on any portion of the image without losing any resolution. ”



optomap produces UWF images of approximately 82% or 200° of the retina, providing detailed information of pathology that may be present beyond the vortex vessels. These far peripheral pathologies may often go undetected using traditional examination techniques and equipment. **optomap** can image up to 200 degrees of the retina in a single capture. Unlike full spectrum, white-light used in conventional devices, **optomap** technology incorporates low-powered laser wavelengths that scan simultaneously. The lasers create a virtual point, posterior to the iris plane and then the lasers pivot in order to create the large scanning angles.

Bossie underscores that the technology has enhanced the ability to educate students on peripheral retinal disease. “Being able to quickly photo document so far out allows us to review and assess everything but in particular far peripheral retinal lesions which we’ve always had a hard time imaging. For example, I recently had an urgent examination and the patient was diagnosed with two peripheral retinal tears. I was able to utilize the retinal image to tangibly educate both the patient and the students on what I saw and how it needed to be treated.”

Bossie shares another recent case that cements the exceptional value he places on **optomap** as a true non-mydratric technology. “I had a recent patient who came in as an urgent triage screening. He was a twenty-year-old student who presented with a red eye. On initial examination I found his vision had been significantly reduced and he also had substantial anterior and posterior segment inflammation. He had uveitis and vitritis which was very dense and made it hard to get a good look at the back of the eye. Additionally, he was myotic, photophobic and had significant synechia which prevented him from dilating properly. I wanted to get a look at the nerve, but it was extremely difficult.”

Bossie explained that he then imaged the patient on the **California**, which penetrated through the undilated pupil and the severe opacity. “I was finally able to image the back of the nerve and this revealed to me that he had severe Papillitis. It was really intense to see. I was truly surprised that I was able to get through all of these issues to get a good image and that obviously impacted how he was



Timothy Bossie OD, reviewing an **optomap** image with students using Optos **Advance** software.

going to be treated.” Bossie referred the patient immediately to Massachusetts Eye and Ear where he was treated with IV steroids. His vision improved and the inflammation and swelling were resolved.



Optos plc
Queensferry House
Carnegie Campus
Enterprise Way
Dunfermline, Fife
Scotland KY11 8GR
Tel: +44 (0)1383 843350
ics@optos.com

Optos, Inc.
500 Nickerson Road
Suite 201
Marlborough, MA 01752
USA
Call Toll-free (US & Canada): 800 854 3039
Outside of the US: 508 787 1400
usinfo@optos.com

Optos Australia
10 Myer Court
Beverly
South Australia 5009
Tel: +61 8 8444 6500
auinfo@optos.com

