



monitoring glaucoma patients, as well as patients with other conditions. In addition, the instrument captures 16 images of the corneal endothelial cell layer and automatically indicates the optimal image for analysis.

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— Emile Fadel, OD

Once I choose the image of interest, a complete analysis is generated in 2 seconds. The analysis includes two histograms depicting variation in cell shape and size and allows visualization of the cells in four different modes. Image acquisition is efficient, too, because it is enhanced by the instrument’s 3-D auto-tracking, auto-focus, auto-shot, and tilttable touch screen features.

Dr. Fadel: I have had other specular microscopes in my office in the past, and they required their own instrument table. That meant patients had to be moved to another station to complete their testing with the technician. The NIDEK CEM-530 is small enough to fit on the same desk with other instruments, which helps to smooth patient flow within the practice. The CEM-530 also has a built-in printer that provides an instant printout of images and data from the analysis. As such, I never have to worry about whether the office Wi-Fi is functioning properly at that moment, and I don’t have to walk to a printer in another room to retrieve the printout.

4. Is the NIDEK CEM-530 specular microscope easy to use? Does your staff like it?

Dr. Fadel: I started with one CEM-530 a few years ago, and

now I have several. Our staff likes the speed and ease of use. They also like its small stature, in particular, because it fits nicely within the established patient flow. Technicians have a limited amount of time with patients for preliminary testing, and they appreciate being able to take patients through a series of instruments efficiently — one, two, three, and so on.

5. How has the NIDEK CEM-530 specular microscope changed your approach to patient care?

Dr. Fadel: The NIDEK CEM-530 specular microscope furnishes information about parameters of the corneal endothelial cell layer that are relevant to corneal health and patient care, including cell density, coefficient of variation in cell area (CV), and percentage of hexagonality. In contrast with other instruments in its category, it images and analyzes not only the central and paracentral endothelium, but also the peripheral region. Although all of this information is valuable in a variety of patient scenarios, it has a marked impact in my busy contact lens practice.

The CEM-530 helps me to determine whether patients are compliant with proper contact lens wear, which can otherwise be tricky to ascertain. For example, if the percent hexagonality is reduced, or if the CV is elevated, it indicates overwear, perhaps ill-advised overnight wear. This prompts me to provide additional education about contact lens safety or recommend reduced wear time or a different type of lens. I show patients their microscopy findings on the computer screen so they can see for themselves the problems — at the cellular level — that are caused by improper contact lens wear.

Rarely has any other doctor spoken with them about this, or showed them images of their cells. The fact that I do definitely helps to differentiate my practice from others. The more differentiators I can create, the more my practice is positioned as the contact lens center — a center to which patients are eager to come.



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