

# NEW PRODUCT APPLICATIONS

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## Upgraded Vitrectomy System Offers Surgeon-Driven Innovation

*DORC's EVA now has an ergonomic foot switch and an LED light.*

In response to retinal physicians' feedback, DORC has significantly enhanced its EVA surgical system for vitrectomy.

"Surgeons said they wanted more control during surgery," says James Burckhardt, global marketing director for DORC. To address this request, DORC completely redesigned the foot pedal to allow surgeons to seamlessly switch between vitrectomy and laser modes and eliminate the need for a secondary laser pedal. Surgeons can operate independently of tech support when switching to the laser mode.

Growing interest in smaller, 27-gauge macular surgery drove the second key element of the upgrade. The desire for better illumination when performing 27-gauge surgery inspired DORC to introduce an enhanced LED light module. "When combined with EVA's new generation of light fibers, the enhanced light module increases illumination by 95%" Burckhardt says.

Given these upgrades, Gaurav Shah, MD, retinal physician with The Retina Institute in St. Louis, Missouri, who has used the DORC EVA for many years, was eager to try

the enhanced system. "Like many foot pedals, EVA's previous foot pedal was ergonomically challenging," he says. "The new, ergonomically correct foot pedal is very comfortable. It enables me to switch between all of the system's functions, such as moving between vitrectomy settings, turning the laser

Because 98% of his surgical cases are best performed with 27-gauge surgery, Dr. Shah was also attracted to EVA's improved lighting feature. "Its new LED light source provides 25% to 30% more light," he says. "More light makes it much easier to work on small fibers. It's very noticeable for surgeons and training fellows who serve as assistants. It's a huge improvement in terms of 27-gauge surgery."

As a complete phacovitrectomy system, DORC's EVA system is ideal for both cataract and retina surgery. Its unique VTi fluidics system combined with the first 2-dimensional cutter ensure that EVA is equally suitable for straightforward macular surgery as well as more complex diabetic and proliferative vitreoretinopathy pathologies.

The enhancements are now available in all new EVA systems and can also be retrofitted to all existing EVA surgical systems.

### USER FRIENDLY

When designing the new foot pedal, DORC's research and development team went back to the drawing board. They identified different surgeon preferences for its design. "The end result is now much more comfortable to use for longer procedures," Burckhardt says.



on and off, increasing the laser's power, using cautery, and changing pressure in the eye." Ultimately, the surgeon is in control of about 95 percent of the machine's functions when operating it with the foot switch.

Surgeons can now reach all 6 switching functions without needing to remove their foot from the pedal. Furthermore, a new heel rest provides a more comfortable resting point and lower angle of operation during surgery.

The EVA foot pedal is also the first surgical system to feature interchangeable inlays, which are patent pending. These inlays allow surgeons to choose from 4 alternative designs that can be easily switched. DORC is also considering offering further customizable inlays in the future.

“Surgeons prefer to maintain a fixed stable posture during surgery, because they have instruments inside the eye,” Burckhardt says. “If they’re moving their foot — trying to find another foot switch — it can affect their balance. The new foot pedal minimizes the need to shift positions during surgery. If surgeons encounter a

hemorrhage during the laser phase, for example, they can immediately move to vitrectomy without having to move their foot off the pedal — which was necessary in the past.”

“It took me about 2 cases to learn how to operate the foot pedal,” Dr. Shah says. “It’s like driving a car that’s not your own. It takes a little bit of learning to see where all the buttons are and what they do.” Fellow he works with had similar learning curves.

By having more features controlled by the foot, the surgeon can perform more of the functions essential to surgery. They don’t need to ask a tech to change controls through the screen interface, freeing up techs to focus their attention on a surgery’s peripheral requirements. “They can make sure the surgeon has every other requirement they need to complete surgery in the most efficient way

possible and with the best clinical outcomes,” Burckhardt says.

Along these lines, Dr. Shah says that techs can now pay more attention to what surgeons are doing on the monitor instead of trying to switch machine modes. “They become active spectators,” he says.

“The advantage is control and convenience for surgeons, which leads to efficiency,” Dr. Shah says. “That to me is one of the best parts.”

### **PATIENTS BENEFIT, TOO**

With surgeons more in control, they can be more focused on patient outcomes, Burckhardt says.

“Patients benefit when a surgeon can perform 27-gauge surgery, because incisions are smaller, there’s less inflammation, wounds heal faster, and recovery times are shorter,” Dr. Shah says. **RP**