

REACHING NEW HEIGHTS IN CORNEAL CROSS-LINKING




avedro

The World Leader in Corneal Cross-Linking Science and Technology



KXL: The First True Breakthrough in Corneal Cross-Linking Technology in the Last Decade

The KXL® System achieves accelerated cross-linking in just minutes by increasing the UVA power and reducing the exposure time while maintaining the same total energy on the eye as standard cross-linking. In addition, the KXL System is the first and only cross-linking system manufactured with:

- Accelerated cross-linking with pulsed or continuous wave illumination
- The highest power available, up to 45 mW/cm²
- Superior top hat beam profile, precise depth of focus
- Wireless control for beam alignment in the X, Y & Z axes
- Fully integrated stable delivery platform
- Touch screen programming & operation
- Untethered battery operation for enhanced mobility

The KXL System's higher power yields shorter UVA exposure times for increased patient comfort and improved practice efficiency.

Procedures performed with the KXL System and Avedro's proprietary riboflavin formulations:

Procedure Name:	Purpose:	Related to:
Lasik Xtra®	Corneal cross-linking in conjunction with LASIK	Improving corneal biomechanical strength following LASIK
Accelerated Cross-Linking	Accelerated cross-linking for keratoconus & ectasia	Halting progression of disease
	Accelerated cross-linking for forme fruste keratoconus	Slowing or eliminating the development of acute keratoconus



Mosaic™: The the next revolution in refractive correction

Avedro has developed the Mosaic System to integrate patient topography with real-time eye tracking and programmable UVA illumination patterns to provide a truly customizable procedure for every patient. These features are designed to provide refractive correction with cross-linking alone.

Avedro's Mosaic System allows patterned, precise, topography-guided accelerated cross-linking with:

- Active eye-tracking
- Integration of corneal topography data
- Custom patterns with digital micro-mirrors
- Significantly higher power and energy
- PiXL, Lasik Xtra®, Accelerated Cross-linking procedures

The PiXL (Photorefractive Intrastromal cross-linking) procedure performed by the Mosaic device gives you the ability to target new populations of patients with low myopia and post-cataract refractive error.

Family of Riboflavin Products



For Faster Diffusion

VibeX Rapid™ is formulated with no dextran, thus reducing corneal thinning. It has a diffusion rate of twice that of standard riboflavin. VibeX Rapid is typically applied to the cornea after epithelium removal, then UVA light from the KXL or Mosaic System is applied to activate it for accelerated cross-linking.

Technical Information:

- Formulation
0.1% Riboflavin
Saline, HPMC
- Procedure
Accelerated Cross-Linking
for Keratoconus & Ectasia
- Application
Epi-Off

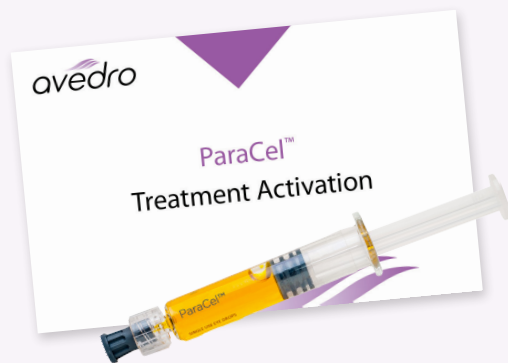


For Lasik Xtra

VibeX Xtra™ is formulated specifically for use during a Lasik Xtra procedure. VibeX Xtra is applied directly to the stromal bed prior to replacing the flap following excimer laser ablation. Formulated in an isotonic solution, VibeX Xtra diffuses quickly to minimize flap exposure time and deliver the appropriate concentration of riboflavin for cross-linking. Once the flap has been repositioned over the cornea, UVA light from the KXL or Mosaic Systems is applied to activate VibeX Xtra, restoring the biomechanical integrity of the cornea.

Technical Information:

- Formulation
0.22% Riboflavin
Saline
- Procedure
Lasik Xtra
- Application
Stromal Bed



For Trans-Epithelial Cross-Linking (Epi-On)

ParaCel™, Avedro's two-part trans-epithelial riboflavin, is specifically formulated for direct application on the intact epithelium. Its higher concentration of riboflavin and proprietary formulation allow for the fastest penetration and diffusion into the corneal stroma.

Intact epithelium diminishes the effect of cross-linking when low powered UVA devices are used. Only Avedro's KXL and Mosaic Systems offer power high enough for effective, accelerated cross-linking through the intact epithelium using ParaCel.

Technical Information:

- Formulation
0.25% Riboflavin
HPMC, BAC, EDTA
- Procedure
Accelerated Cross-Linking
for Keratoconus & Ectasia
- Application
Epi-On

PiXL Fully Customizable Treatments



For PiXL

Photorefractive Intrastromal Cross-Linking

The Mosaic System delivers accelerated cross-linking as well as the PiXL procedure providing fully customizable intrastromal treatments. These treatments are based on each patient's topography and have uniquely designed energy delivery patterns.

Potential treatment options include refractive change for low myopia and post-cataract myopia and astigmatism with cross-linking alone.

Procedure Information:

- Riboflavin Solutions
VibeX Rapid
VibeX Xtra
ParaCel
- Procedures
Accelerated Cross-Linking
for Keratoconus & Ectasia,
Lasik Xtra, PiXL for Low
Myopia, Post-Cataract
Myopia & Astigmatism
- Application
Epi-On
Epi-Off

Physician Testimonials

“Having been the first corneal surgeon to perform laser refractive surgery in Canada over 20 years ago, I have seen many innovations, and believe Lasik Xtra to be one of the simplest to perform and most beneficial to my Lasik patients.”

- Howard Gimbel, MD, Gimbel Eye Centre

“We are extremely pleased with the KXL System and with the Lasik Xtra procedure. Lasik Xtra now makes it possible for Shinagawa LASIK Center to provide enhanced treatments to our current Lasik patients.”

- Minoru Tomita, MD, PhD, Shinagawa LASIK Center

“I feel there is an added benefit to having Lasik Xtra as its stabilizing effect “locks-in” a prescription after surgery. For certain people interested in having Lasik, it would almost be a disservice to not offer Lasik Xtra!”

- Christoph Kranemann, MD, Clearview Institute

About Avedro

Avedro is a privately held pharmaceutical and medical device company advancing the science and technology of corneal cross-linking and refractive correction.

Avedro distributes its products in countries outside of the United States through a network of ophthalmic medical device distributors. Avedro’s products include capital equipment such as the UV-X devices, the KXL® and Mosaic™ Systems, and related proprietary pharmaceuticals such as the VibeX® and MedioCROSS® formulations. These systems and products are used in a variety of treatments including accelerated cross linking for keratoconus, Lasik Xtra® and PiXL™.

Avedro’s KXL System and pharmaceuticals are being used in an open-label study involving 83 KXL Systems placed in U.S. clinical sites. Avedro products are not approved for sale in the United States.



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Avedro’s cross-linking systems and family of riboflavin products are not for sale in the US.
MA-00163G