



Bowman's Layer Conserving Corneal Crosslinking For Keratoconus



The New Standard of Care for Bowman's layer conserving Corneal cross linking for treating Keratoconus

EBK™ (Epi-Bowman's Keratectomy) - Cross is the only procedure that removes the epithelium layer by layer, leaving Bowman's layer completely intact and creating clear and graduated borders that enables maximal riboflavin absorption for enhanced healing enables uniform riboflavin absorption for faster and enhanced re-epithelialization.

With EBK™ epithelium-off crosslinking, the outer portion of the cornea (epithelium) is removed to allow the application of riboflavin, a type of B vitamin, into the cornea, which then is activated with UV light. Epithelium-off corneal crosslinking allows faster penetration with liquid riboflavin and requires less riboflavin loading time. Corneal crosslinking with riboflavin and UVA light has proven to be an ideal first-line treatment for people with eye conditions such as keratoconus, pellucid marginal degeneration and corneal weakness (ectasia) after LASIK.

EBK™ creates the optimal conditions for successful corneal crosslinking and lowers risk of haze. EBK™ completely preserves corneal biomechanical integrity, protecting the cornea from further damage, and creates optimal conditions for regularized and smooth corneal epithelium healing compared with other mechanical epithelium removal methods. In addition, EBK™ reduces post-op pain and lowers risk of complications.

EBK™ Advantages

High Safety Profile

Disposable device means less risk of inflammation and infection

Better outcomes

Uniform riboflavin absorption, Faster re-epithelialization and recovery and reduced risk of haze factors

Fast

Epithelial layer removal in only seconds

Leaves the tissue smooth

No epithelial cell residue

Reproducible

Creates a reproducible and precise treatment bed for optimal cross-linking treatment

Rapid Recovery

Minimally invasive procedure allows the epithelium to completely heal and leaves no epithelium scarring

Patient Comfort

Short recovery time and maximal patient comfort

Max K value reduction

Studies have shown a substantial Max-K value reduction after 3-8 months



The EBK is less traumatic to the patient and the best tool for my Epi-off CXL patients with fast and better re-epithelialization

- Prof. Cosimo Mazzotta



Unique Design For Fast, Sterile Procedure

The Epi-Clear™ device is patent protected, consists of a single use handle and a single use tip, made from recyclable materials. Each handle is intended for single use on one eye only. The special ergonomic design allows physicians full control on multiple positions either in the operating room or outside of it



Maintains Bowman's Layer Completely Intact

Maintains Bowman's layer completely intact

EBK™ - cross uses a specialized dynamic multi-blade polymer epikeratome device to preserve Bowman's layer for precise epithelium surface removal. The dynamic epikeratome gently sweeps the epithelial surface and simultaneously collects discarded epithelial cells into the multi-blade tip for thorough removal. Because Bowman's layer remains completely intact, healing and recovery time are shortened significantly.

Faster re-epithelialization and healing

The resulting treatment bed has distinct and clear borders that augment epithelium periphery growth. By creating a smoother and superior treatment bed free of residue, EBK™ - cross enables less painful healing, shortens recovery time and reduces the incidence of corneal haze.

Fast recovery

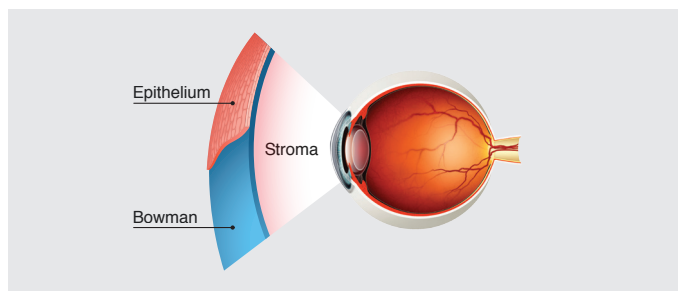
Patients can return to their daily routines right after the EBK™ - cross procedure.

Suitable for all patients

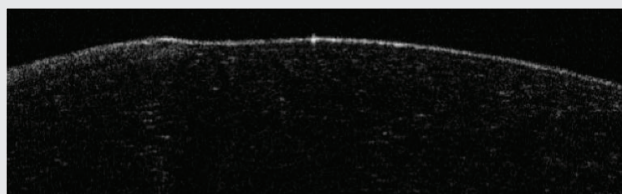
EBK™ - cross is suitable for all keratoconus patients and completely preserves corneal biomechanical integrity.

Clinically Proven

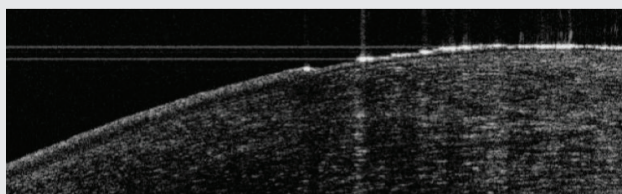
EBK™ - cross has been clinically proven in corneal crosslinking to deliver faster re-epithelialization, preserve the integrity of the cornea and produce a less painful alternative than other epithelium-off cross linking procedures.



Intra-Op SD OCT Images

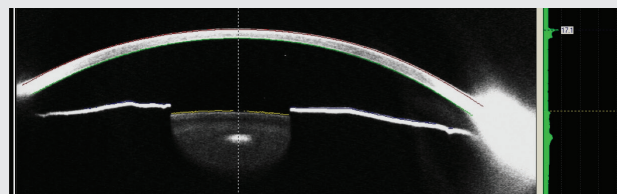


EBK™ Cross
Intact and smooth Bowman's membrane



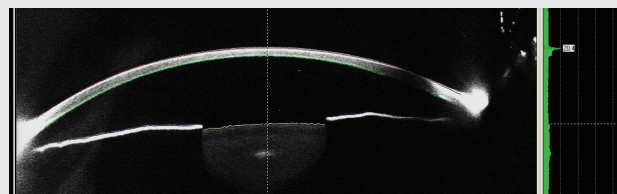
Mechanical scrapper
Damage and nicks to the Bowman's membrane

Corneal Haze On Scheimflug Imag



EBK™ Cross

17.1



Mechanical scrapper

20.4

About Orca Surgical Ltd.

Orca Surgical is the developer of the EBK™ procedure, a pioneering solution for ophthalmologic surgery focused on the cornea. The company innovates and brings to market sophisticated surgical devices and technologies for refractive surgery, keratoconus, refractive enhancement, and treatments for recurrent erosions of the cornea. These elegant devices and technologies are uniquely designed to offer safer alternatives that deliver highly reproducible results.