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The Best Vision Newsletter

### New Advances in Cornea Transplantation

It's a simple idea: Why transplant the entire cornea when only the diseased layers of the cornea need to be replaced? Recent innovations in equipment and techniques have changed the way we approach corneal transplantation and are making this previously elusive goal a reality for many of our patients.

#### Penetrating Keratoplasty (PK)

PK involves full-thickness corneal transplantation and has been the standard of care for virtually all corneal diseases. This surgery has changed very little over the last 50 years despite drawbacks that include dramatic shifts in refractive error, large amounts of iatrogenic astigmatism, and the possibility of graft rejection and failure. Incremental improvements include the use of topical steroids, adjustable running suture, and post-operative **LASIK** for resultant refractive error.

However, newer cornea transplant techniques offer several dramatic advantages over PK in those patients without full thickness corneal disease:

#### Descemet's Stripping Lamellar Keratoplasty (DSEK)

DSEK is indicated for patients without corneal scarring and with disease limited to the inner cornea layer (endothelium), such as **Fuchs' endothelial dystrophy (FED)** or **pseudophakic bullous keratopathy (PBK)**. DSEK preserves the majority of the cornea and involves transplantation of only the endothelium. The incision is significantly smaller than in PK, and typically does not require sutures. As a result the healing is quicker and the wound is less susceptible to injury or rupture. Visual recovery is much faster since there is little refractive shift because the cornea's original anterior curvature is left unchanged.

#### Deep Anterior Lamellar Keratoplasty (DALK)

DALK is a partial thickness graft that preserves the two inner-most layers of the cornea, Descemet's membrane and endothelium. The goal of DALK is to replace the diseased anterior cornea while preserving the endothelial layer of the host. This essentially eliminates the risk of graft rejection. The best DALK candidates are patients with anterior cornea scarring or with severe **keratoconus** who are contact lens intolerant and who are poor candidates for **INTACS**.

<http://www.icanseeclearly.com/otherservices/INTACS.htm>

Dr. Erdey considers the addition of these new cornea procedures a paradigm shift in his cornea practice, and he is currently working to help refine these techniques. He is increasingly impressed by the rapid visual rehabilitation and impressive clinical results in his patients that have required these procedures.

For more information: <http://www.icanseeclearly.com/otherservices/cornea.htm>

Dr. Erdey prefers DSEK over PK for suitable candidates with FED or PBK.  
He also prefers DALK for patients with advanced keratoconus.

Feel free to contact us to schedule a corneal consultation for your patients with Dr. Erdey. Thank you!

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We dedicate ourselves to enhancing the quality of life of every individual whose life we touch, by helping each to see his or her best, and by preserving our patients' vision and eye health throughout life.

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