Introduction

The endothelium is a layer of cells that regulate fluid transfer into and out of the cornea. Visual acuity is impacted by the proper balance of fluid in the eye **(*Terry et al; 2008*).**

Corneal endothelial failure may result in impairment or loss of vision. Restoration of vision with corneal transplantation has been the standard of care to treat diseased or damaged corneal endothelial tissue such as Fuchs' endothelial dystrophy, pseudophakic/aphakic bullous keratopathy, and failed prior corneal transplant **(*Chen et al; 2008*).**

Penetrating keratoplasty (PK) has been used for decades as a corneal reparative technique, but unsatisfactory optics can impede the visual recovery. New Posterior keratoplasty techniques such as Descemet's stripping endothelial keratoplasty (DSEK) and Descemet's stripping automated endothelial keratoplasty (DSAEK) offered numerous advantages over PK. **(*Goins ; 2008*).**

PK provides healthy donor endothelial tissue, it also replaces the overlying normal corneal stroma in patients with disease limited to the endothelial layer while in DSEK and DSAEK utilize a partial-thickness corneal transplant involving primarily the transplantation of corneal endothelial cells. The full thickness graft used in PK is secured with suture resulting in higher irregular astigmatism post operatively than with DSAEK and DSEK **(*Bahar et al; 2008*).**

Descemet's stripping automated endothelial keratoplasty (DSAEK) has gained popularity in the surgical treatment of endothelial disorders as there is structural integrity for the recipient, minimal change refraction, and faster recovery of vision **(*Suh et al; 2008*).**