

TABLE 27-1  
DIFFERENCES BETWEEN DSEK, DMEK, AND PDEK

	<i>DSEK</i>	<i>DMEK</i>	<i>PDEK</i>
Technical difficulty	Easy	Difficult	Moderate
Type of procedure	Tissue additive	Tissue neutral	Minimal tissue additive
Artificial anterior chamber	Required	N/A	N/A
Microkeratome	Required (DSAEK)	N/A	N/A
Induced hyperopia	Yes	No	No
Corneal thickness	Increased	Normal	Minimal
Intrastromal interface	Yes	No	Minimal
Cost	Costly	Cost effective	Cost effective
Eye bank–prepared donor tissue	Available	No	No
Graft unrolling	Easy	Difficult	Moderate
Tissue handling	Good	Difficult	Good
Visual recovery	Slow	Fast	Fast
Surgical layers	STROMA + DM + ENDO	DM + ENDO	Pre-Descemet's + DM + ENDO

## DIFFERENCES BETWEEN DSEK, DMEK, AND PDEK

Please see Table 27-1.

### IT TAKES TWO TO TANGO— PDEK WITH GLUED INTRAOCULAR LENS

PDEK was described by Profs. Agarwal and Dua.<sup>6</sup> Here the newly described pre-Descemet's layer, the Descemet's membrane, and the endothelium are transplanted after host Descemet's membrane stripping. The combination of PDEK with glued IOL (Figures 27-7 through 27-9) serves the purpose of handling corneal endothelial dysfunction and secondary IOL fixation simultaneously.

#### Technique

A trephine of suitable diameter is used to mark the anterior corneal surface for Descemet's stripping. The desired diameter of the graft should be about 0.5 mm smaller than the recipient eye. The PDEK graft is then prepared. A 30-gauge needle attached to an air-filled 5-mL syringe is introduced in a bevel-up position into the donor corneoscleral rim placed endothelial side up. Air is then injected to form a Type 1 bubble of the desired diameter. The Type 1 bubble consists of the pre-Descemet's layer, the Descemet's membrane, and the endothelium and is seen as a dome-shaped elevation that is around 7 to 8 mm in diameter. It typically enlarges from the center to the periphery and has a distinct edge all around. Trypan blue is then used to stain the graft with a 26-gauge needle introduced into the edge of the bubble. Vannas scissors are used to cut the graft