

Corneal Transplant

The New Paradigm

Pivotal Surgical Advances

- 1. Phaco
- 2. YAG
- 3. Vitrectomy
- 4. Excimer
- 5. DSAEK

PK



PLK = DLEK
Melles Terry



DSLEK
Melles, Price



DSAEK
Gorovoy

PK Indications

- 1. Endothelial Dysfunction
- 2. Deep Opacity
- 3. Shape Abnormality
 - a. Keratoconus
 - b. Melts

ALK: Anterior Lamellar Keratoplasty

1. Superficial ($<160\ \mu\text{m}$)
 - a. 2 Stages
2. Deep (DALK) ($>160\ \mu\text{m}$)

ALK Indications

-No Endothelial Dysfunction-

1. Opacity

a. superficial

b. deep

2. Shape Abnormality

a. superficial

b. deep

Anatomy



Key Depth Number = 250 μ m

1. Anterior
2. Posterior

PK Disadvantages

- 1. Longest Visual Recovery Time
- 2. Poorest Visual Quality
- 3. Greatest Risk of Traumatic Wound Rupture

PK Advantages

- 1. Surgeon Familiarity
- 2. Flexibility and Multiple Procedures
- 3. NONE

PLK, DLEK, DSLEK

Advantages

- 1. Shorter Visual Recovery Time
- 2. Superior Visual Quality
- 3. Minimize Traumatic Wound Rupture

Disadvantages

- 1. Surgeon Familiarity
- 2. NONE

DSAEK

Advantages

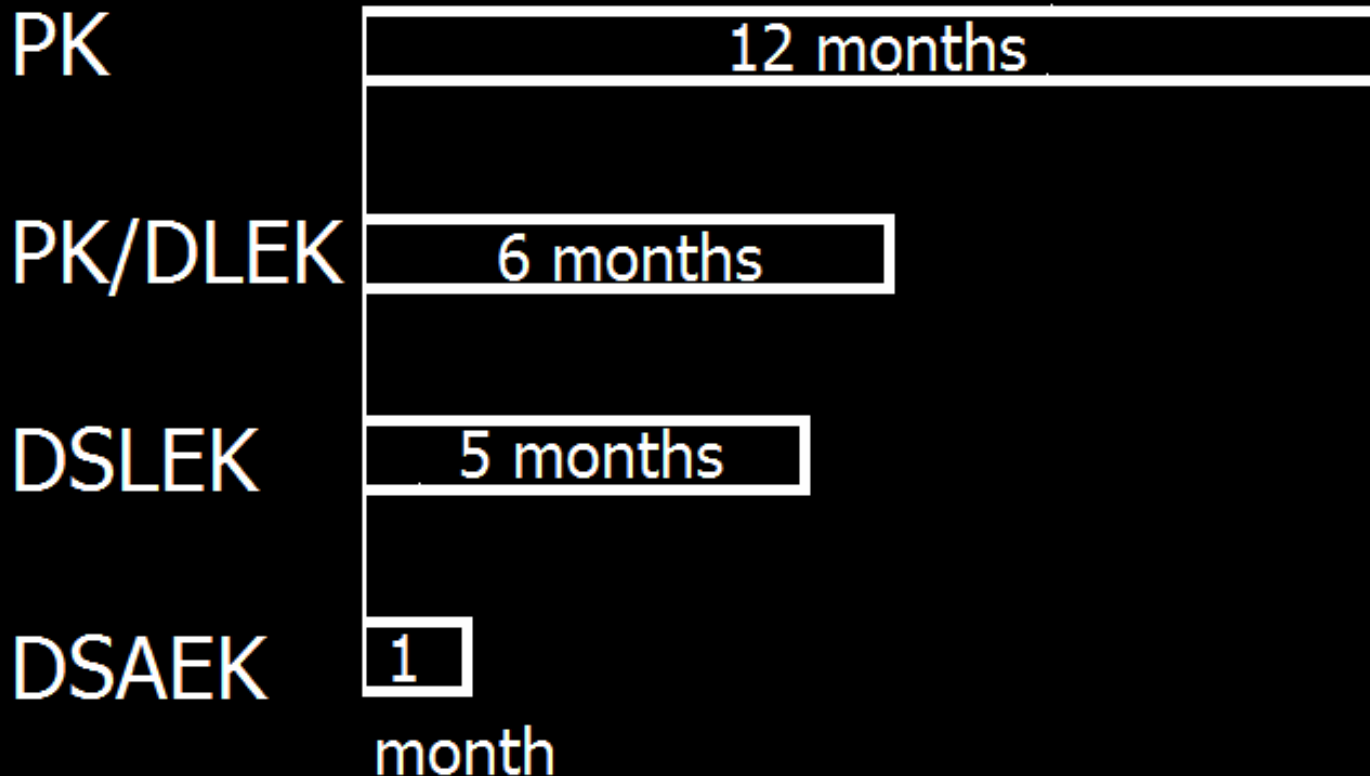
- 1. Fastest Visual Recovery Time
- 2. Best Visual Quality

Disadvantages

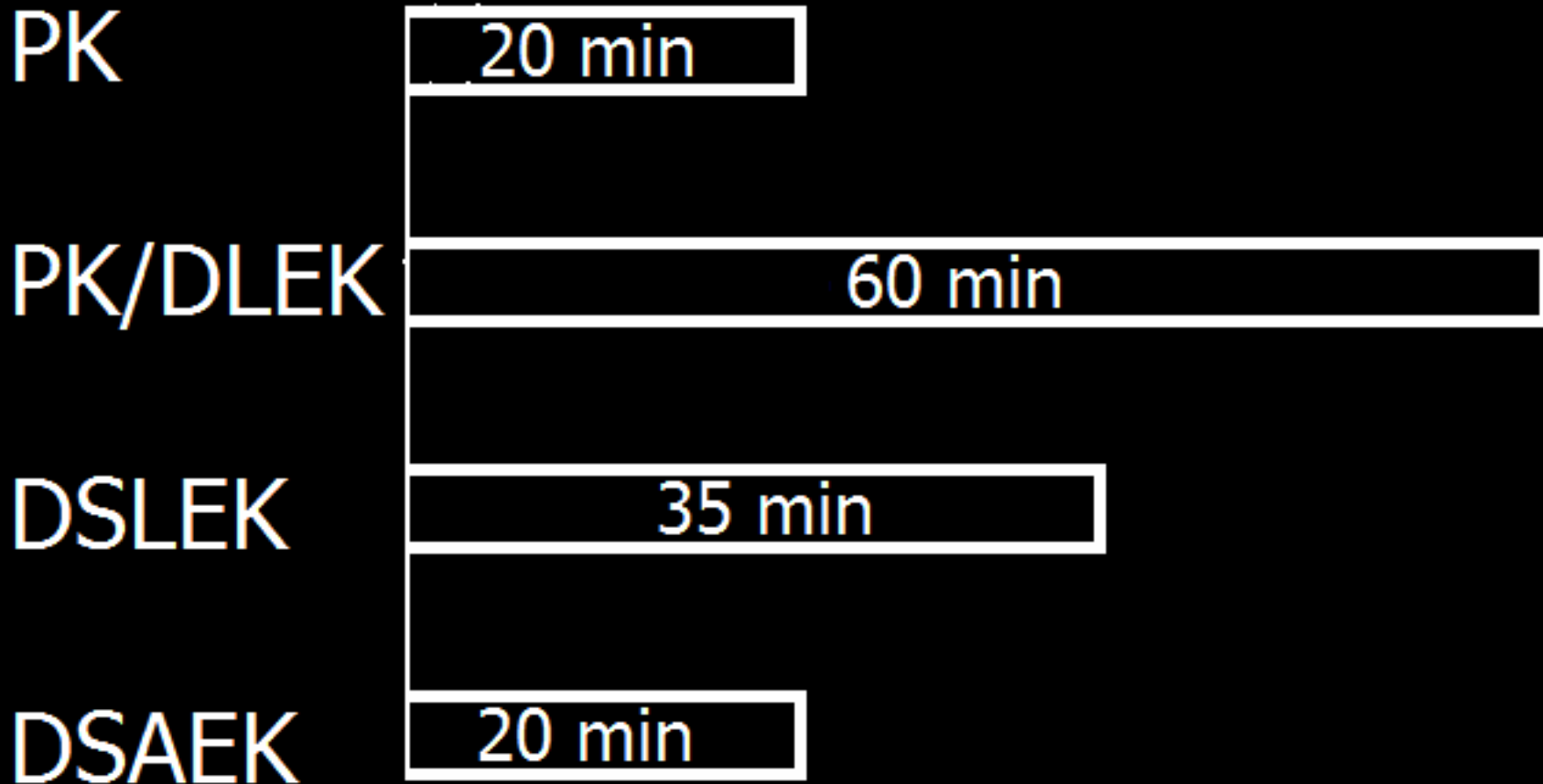
- 1. Surgeon Familiarity
- 2. Expensive Equipment

Visual Recovery Time

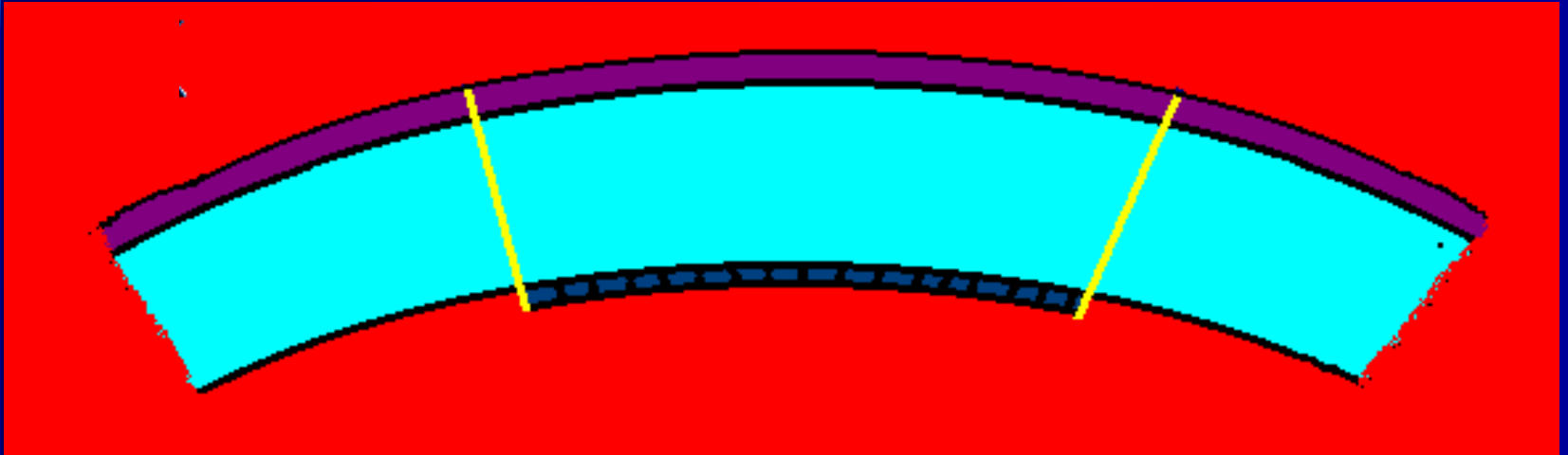
Visual Recovery Time



Operating Time

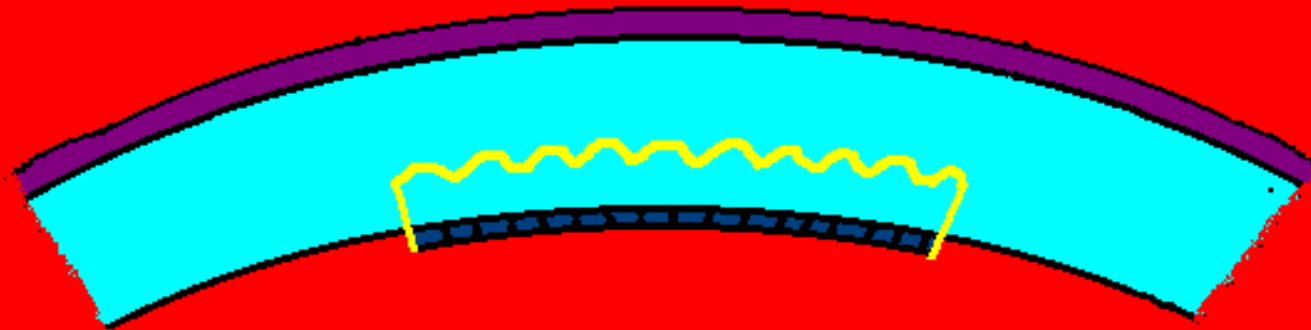


PK

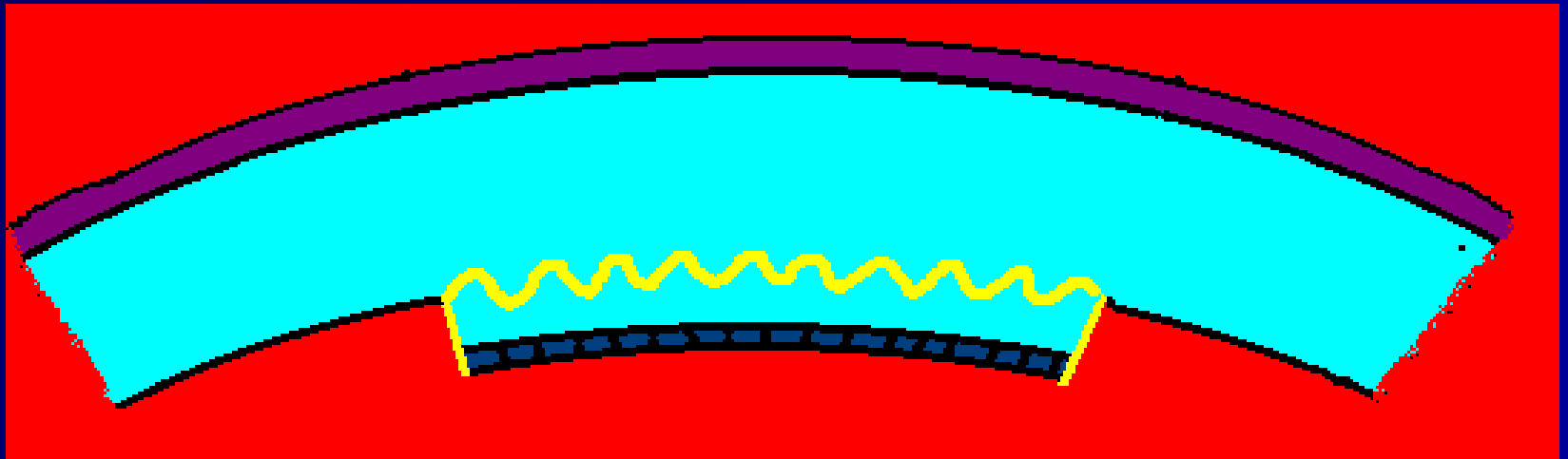


PLK = DLEK

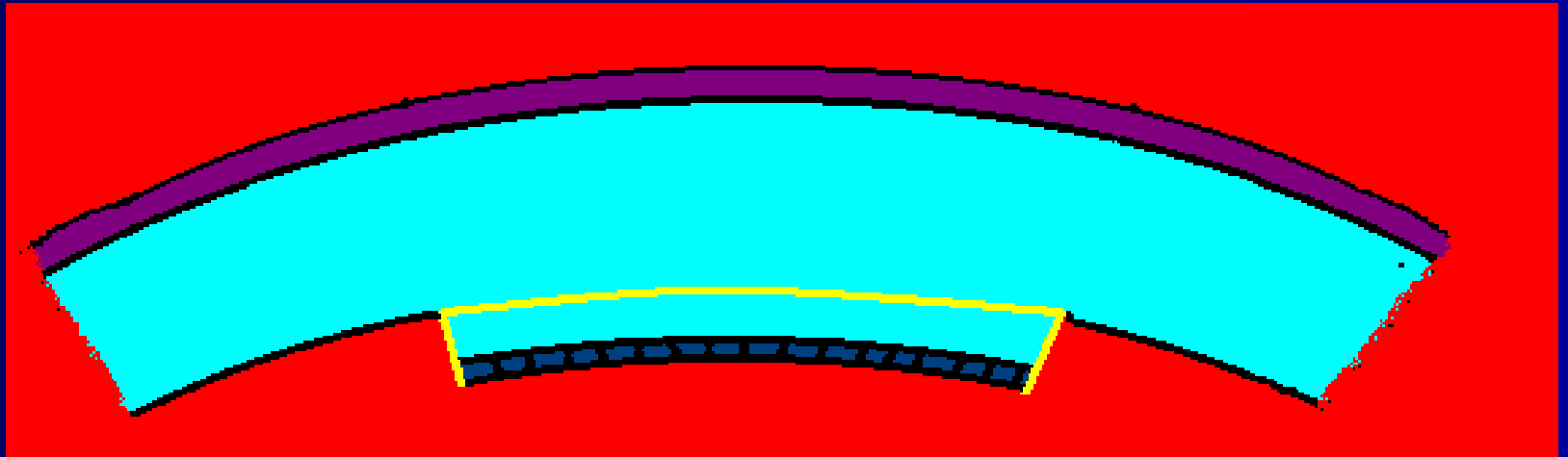
PKL=DLEK



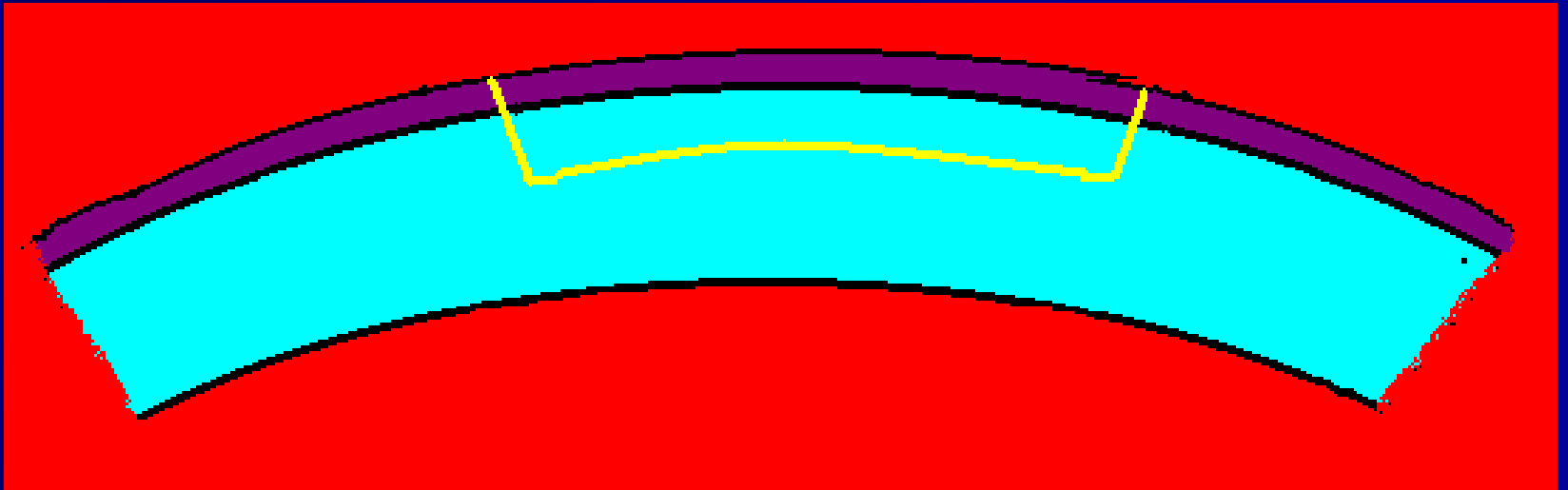
DSLEK



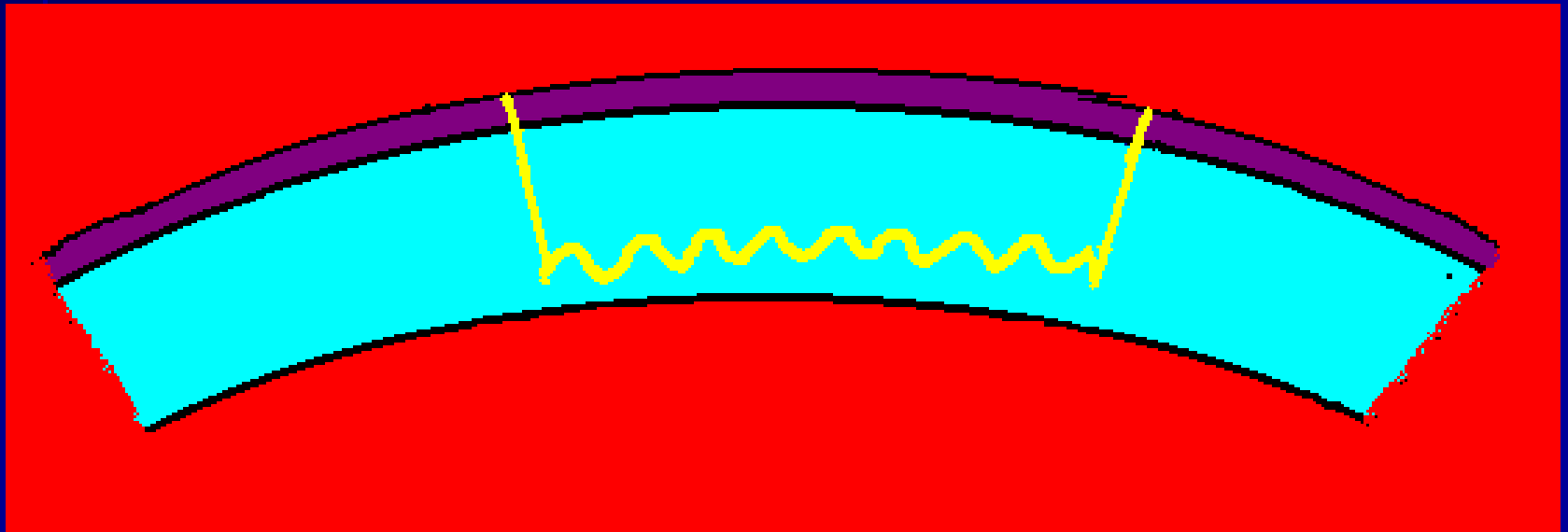
DSAEK



ALK - Superficial



DALK



Transplant Evolution

PK



PLK →
DLEK



DSLEK



DSAEK

ICCE



ECCE



phaco-
PMMA



phaco-
foldable