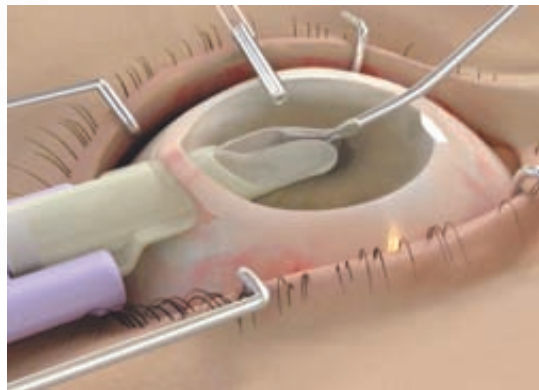


CORONET

Tan EndoGlideTM



SYSTEM & PROCEDURE

The TAN EndoGlide™ system

A new DSAEK donor delivery system with reduced endothelial cell loss.

Corneal transplantation is undergoing a paradigm shift with the development of Endothelial Keratoplasty.

The main focus today is to reduce iatrogenic damage of donor endothelium caused by manipulation and insertion of the donor through a small incision, a difficult surgical task.

The EndoGlide is a device for surgeons to use which consistently delivers a donor lenticule through a small incision, with minimal endothelial loss, whilst making the insertion procedure relatively reliable and consistent, with the surgeon in full control of the donor at all stages of insertion.

The TAN EndoGlide System

Consists of a preparation base, glide cartridge and a glide introducer.



Code 51-820

Introducer and Glide Cartridge



Design Features

Oval diameter designed to fit through a 4.5mm scleral or corneal wound to fully protect the donor graft tissue from the wound margins

Designed with an integral glide platform for ease of insertion without iris prolapse

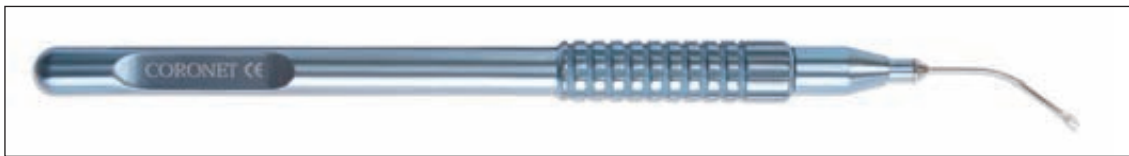
Cartridge can hold a donor up to 250µm in thickness.

Advantages

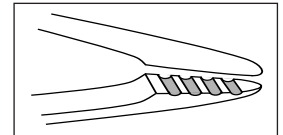
- Minimal endothelial damage - double coiling of the donor, no contact with wound, endoforceps grip stromal edge only
- Minimal endothelial touch during donor coiling - 'double coil'
- Minimal endothelial touch when the donor is 'pulled through' the wound
- No folding assists with unfolding and orientation in the anterior chamber
- Can be used in small eyes with shallow anterior chambers or high vitreous pressure
- Transparent cartridge allows for good visualisation
- Stable anterior chamber throughout insertion procedure 'closed eye' system
- Reliable consistent results
- Supplied sterile for single use only.

Instrumentation

Forceps



53-951 TAN EndoForceps



53-952 TAN EndoGlide Loading Forceps

Donor Punch



PATENT APPLIED

- Super sharp blades
- Lateral windows allow 360° access to sclera
- Visualisation of the donor graft at all times
- Base provides stable operating platform
- Supplied one per box
- Supplied sterile for single use only

Trephine Size (mm)	Code
6.00	51-850-6.00
6.25	51-850-6.25
6.50	51-850-6.50
6.75	51-850-6.75
7.00	51-850-7.00
7.25	51-850-7.25
7.50	51-850-7.50
7.75	51-850-7.75
8.00	51-850-8.00
8.25	51-850-8.25
8.50	51-850-8.50
8.75	51-850-8.75
9.00	51-850-9.00
9.25	51-850-9.25
9.50	51-850-9.50
9.75	51-850-9.75

Donor Vacuum Punch



- Super sharp blades
- Lateral windows allow 360° access to sclera
- Visualisation of the donor graft at all times
- Base provides stable operating platform
- Supplied one per box
- Supplied sterile for single use only

Trephine Size (mm)	Code
6.00	51-835-6.00
6.25	51-835-6.25
6.50	51-835-6.50
6.75	51-835-6.75
7.00	51-835-7.00
7.25	51-835-7.25
7.50	51-835-7.50
7.75	51-835-7.75
8.00	51-835-8.00
8.25	51-835-8.25
8.50	51-835-8.50
8.75	51-835-8.75
9.00	51-835-9.00
9.25	51-835-9.25
9.50	51-835-9.50
9.75	51-835-9.75

The TAN EndoGlide™ procedure

1



Both anterior and posterior lenticules of the donor are first placed, endothelium up, into the donor well of the preparation base. A small amount of dispersive viscoelastic is applied to the endothelial surface in a thin strip.

2



The glide cartridge, designed to fit through a 4.5mm incision, and to accommodate a donor measuring up to 9.5mm in diameter and 250 microns in thickness.

The EndoGlide cartridge is supplied positioned in the preparation base and some BSS is injected for lubrication. The TAN EndoGlide loading forceps are introduced through the cartridge, to grasp the stromal edge of the posterior donor lenticule.

3



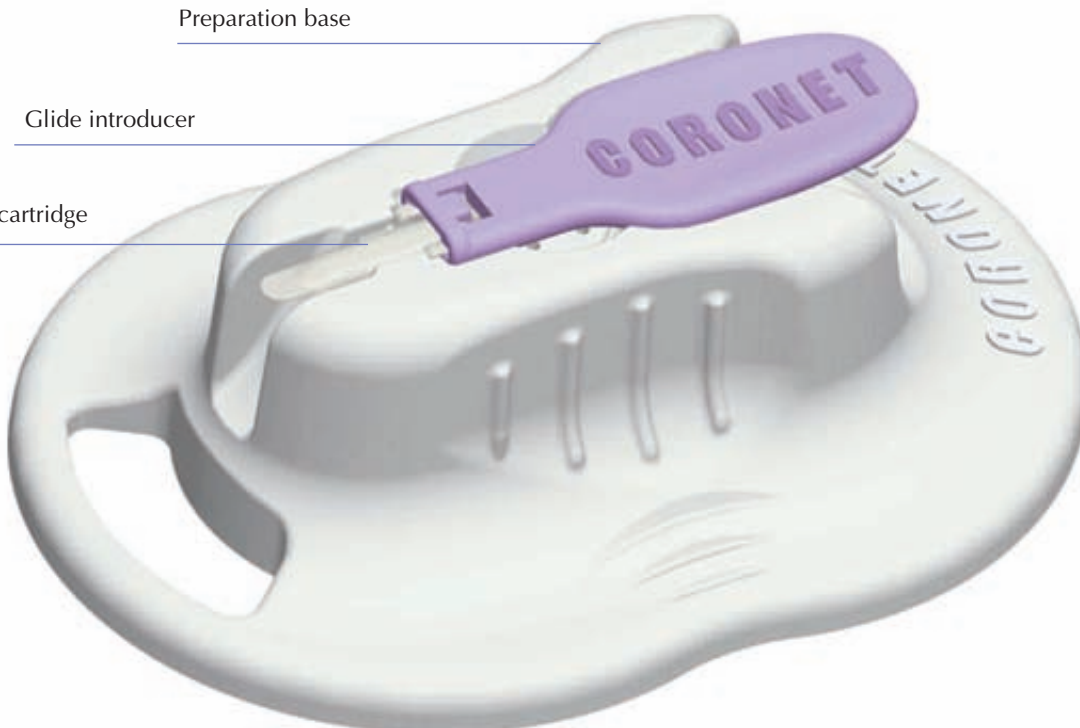
Pulling the lenticule into the cartridge automatically coils the donor into a double coil configuration, with no endothelial surfaces touching. Symmetrical coiling may be facilitated with a sinsky hook or BSS cannula.

The EndoGlide introducer is attached, sealing the back end of the capsule. The assembled EndoGlide is removed from the base, rotated the right way up, and is ready for insertion.

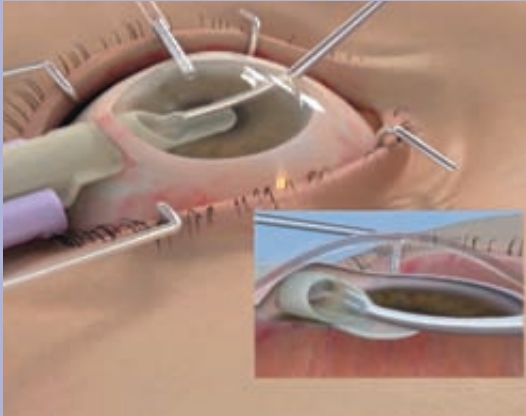
Preparation base

Glide introducer

Glide cartridge



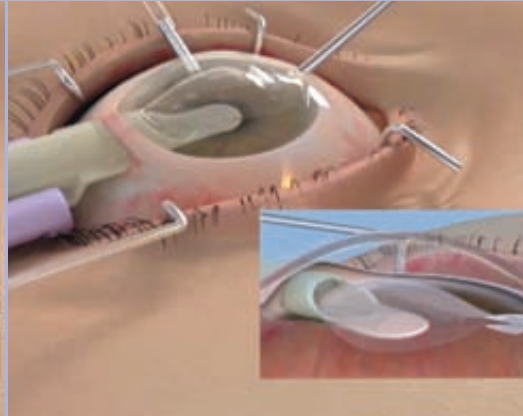
4



In the recipient cornea, 4 venting incisions are made in the midperipheral cornea before donor insertion.

An AC maintainer can be used to stabilize the chamber, the EndoGlide is carefully inserted through the scleral tunnel, forming a complete seal of the wound. The TAN EndoForceps, introduced through the nasal paracentesis, simply grasps the stromal leading edge of the donor and pulls it completely into the AC.

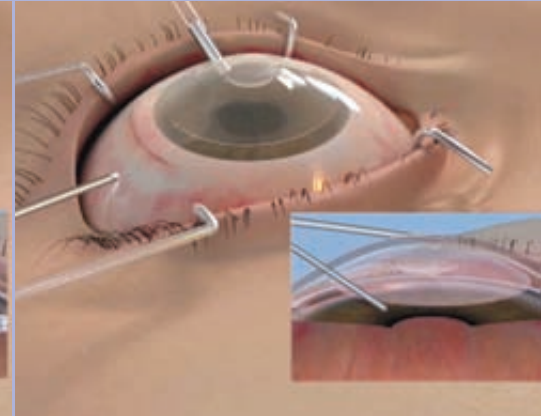
5



Gentle manipulation of the donor with the forceps, coupled with the deep AC enables automatic uncoiling of the donor without risk of donor inversion.

The Tan EndoForceps hold the donor in the anterior chamber until the EndoGlide has been withdrawn.

6



The EndoGlide is removed.

A small air bubble is injected beneath the donor to prevent descent onto the iris.

The donor is released and the Tan EndoForceps withdrawn.



Below is an extract from a presentation given by Professor Donald Tan, 2009.

“Donor insertion with the EndoGlide is performed through a 4.5mm temporal incision. In our video a scleral tunnel approach is shown, which is preferred to reduce the risk of astigmatism, although the procedure may also be performed through a clear corneal tunnel. The scleral tunnel should be approximately 2mm in depth. No entry into the AC should be made at this stage.

A small conjunctival peritomy is opened at the 6 o'clock limbus in preparation for an inferior peripheral iridotomy, and the corneal epithelium is removed.

A 1mm paracentesis is made adjacent to the scleral tunnel to insert an anterior chamber maintainer (NB: it may be possible to perform the procedure without the use of an AC maintainer in eyes without excessive high vitreous pressure). A small opening is made in the scleral tunnel to insert a reverse sinskey hook to perform descemet stripping. We prefer stripping under air for maximal visualization and control of Descemet membrane, and air is constantly injected through the AC maintainer by the assistant with a 60ml syringe attached to the AC maintainer through a 3-way trap. Forceps are used to remove detached Descemet membrane. Of course, one may resort to using a cohesive viscoelastic to strip Descemet membrane, but all viscoelastic should be removed after stripping.

A nasal 1mm paracentesis is made at the peripheral cornea for entry of the EndoForceps which are used to pull the donor. The same EndoForceps may be used to perform a small peripheral iridotomy through a 6 o'clock paracentesis. The scleral wound is then fully opened.

*The **EndoGlide Cartridge** is supplied positioned in the preparation base, and some BSS is injected for lubrication. The precut donor can be inked at one edge and carefully separated from the anterior cap with a BSS cannula. Both anterior and posterior lenticules are transferred endothelium up, into the donor well of the preparation base, and a small amount of viscoelastic is applied. The straight microforceps are introduced through the cartridge to grasp the inked stromal edge of the posterior donor lenticule, which is gently pulled in. The donor automatically forms a double coil configuration.*

Symmetrical coiling may be facilitated with a sinskey hook or BSS cannula.

*The donor is advanced until it reaches the front opening of the cartridge which is inferior in this position. The **EndoGlide Introducer** is clipped into position, sealing the back end of the cartridge. The fully-assembled EndoGlide with the donor in place is removed from the preparation base and inverted the right way up, ready for donor insertion.*

In the recipient cornea, four venting incisions are made in the midperipheral cornea before donor insertion (this is obviously optional). With the AC maintainer on, the EndoGlide is carefully inserted through the scleral tunnel, ensuring that it completely enters and seals the wound. The EndoForceps are introduced through the nasal paracentesis, over the EndoGlide platform and simply grasps the leading stromal edge of the donor, and pulls it completely into the AC, at which point the EndoGlide may be removed. Gentle manipulation of the donor with the forceps, coupled with

the deep AC from the AC maintainer enables automatic uncoiling of the donor without risk of donor inversion. Whilst still holding onto the donor, a small amount of air is introduced below the donor to prevent descent onto the iris, and the donor is then released.

The scleral wound is sutured, the AC maintainer is removed and that paracentesis site is also sutured, for a tight seal for pressurised air injection. It is not usually essential to suture the nasal and inferior paracentesis sites. The donor can be repositioned by tapping or gentle rubbing over the cornea, and some BSS is injected to reform the AC to allow entry of a 30 gauge needle beneath the donor.

Air is injected slowly to form a complete air fill under pressure, which forces the donor to adhere to the posterior corneal surface. A full air fill is seen when a complete silvery meniscus is visualized at the edge of the donor, and the venting incisions are gently opened to release any remaining pockets of retained BSS between the donor and the recipient cornea. Air compression is maintained for at least 6-8 minutes, during which time the conjunctiva may be sutured and sub-conjunctival injection of antibiotics and steroid may also be given.

Finally BSS is injected and some air is removed to leave behind an air bubble which approximates the size of the donor, and a bandage lens completes the procedure.”

Professor Donald Tan

FRCSE FRCSG FRCOphth FAMS

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