CORDELIA

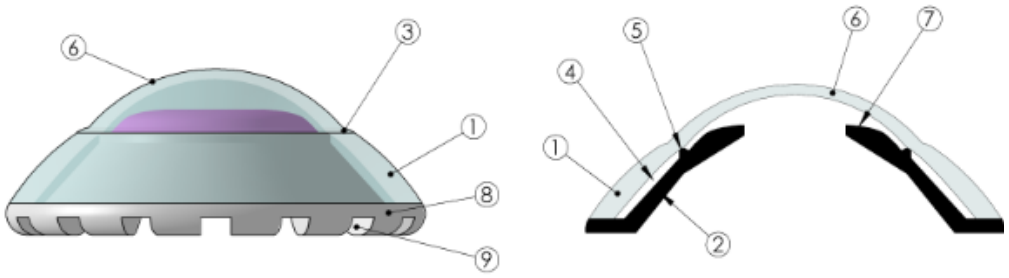
CORNEA/RECOVERY

BIONIKO MODELS

INSTRUCTIONS FOR USE

Watch an instructional video:

CORDELIA focuses on providing a realistic anatomical reference for practicing gross corneal dissection techniques like in-situ corneal excision and corneal trauma repair.

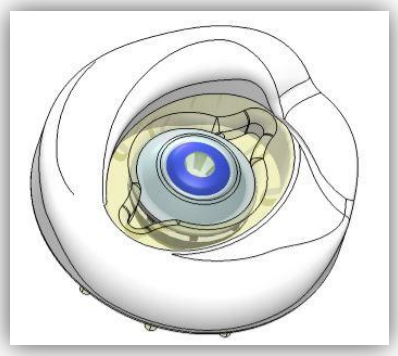


1- SCLERAL LAYER
2- CHOROID LAYER
3- LIMBUS
4- SUPRA-CHOROIDAL SPACE
5- SPUR
6- CORNEA
7- IRIS
8- STRUCTURAL RING
9- NOTCHES

Do not use dry. Soak 10 minutes in warm water (~37ºC) before use.

The model anatomy includes a **scleral layer (1)** and **choroid layer (2)**. These layers are separated posterior to the **limbus (3)**, simulating the **supra-choroidal space (4)**, and are attached at the **spur (5)**. The user can practice detaching the tissue at the spur with minimal stress to the endothelium, an essential technique for corneal recovery. **Cornea (6)** provides realistic feel and accurate anatomical proportions to practice corneal suturing, and the **iris (7)** feature adds to the model's realism The **structural ring (8)** at the base of the model maintains the model's shape and the **notches (9)** prevent unwanted rotation of the model during trephination.

REQUIRED ACCESSORIES



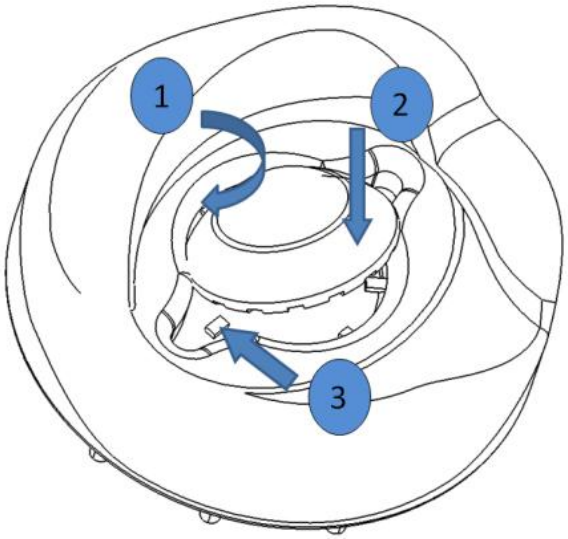
Any BIONIKO holder works for corneal suturing tasks.

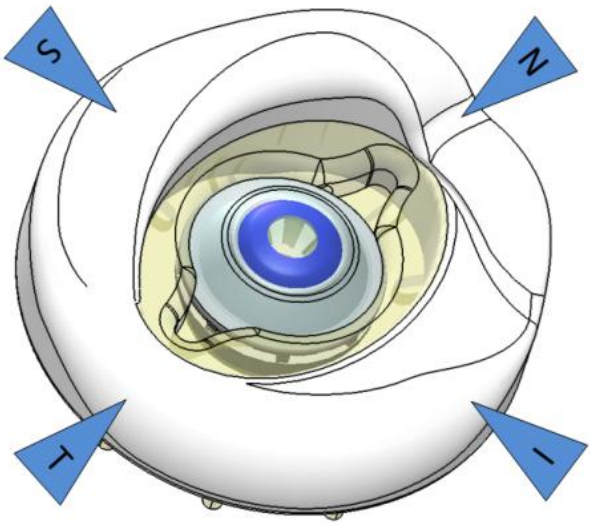
A Standard ORBIT (sold separately) is recommended to practice in-situ corneal recovery.

1. **Standard ORBIT (OPHT-ORB-R or L) :** The **ORBIT** model serves as a base for the **CORDELIA** model and provides reference and realism by challenging the user to manipulate instruments according to the facial structures around the eye. There are both right (R) and left (L) **ORBIT** models to practice both approaches.

MODEL SET-UP

1. Add water into the anterior chamber of the model with a dropper or under the tap.
2. Soak in water (~37°C for best results) for 10 minutes for cornea to hydrate.
3. **Load CORDELIA model in the ORBIT**. The **ORBIT** has a flexible "eyelid" that receives and secures the **CORDELIA** model. Use a couple of water drops to moisten the eyelid and socket area. Insert the edge of the model under the superior eyelid (1) and push the inferior sclera from the structural ring into the socket (2) to load the model.





3. **Fix the ORBIT** in place by pressing downward on a smooth surface to engage the suction-cup. Orient the **ORBIT** according to the desired approach: Superior (S), Nasal (N), Inferior (I) or Temporal (T).

4. **Practice Task**:

IN-SITU EXCISION: Practice corneal excision techniques, including steps of trephination, sclerotomy and corneal teasing (dettachment from spur).

CORNEAL SUTURING: Cordelia can also be used to practice corneal suturing techniques by creating a laceration or other trauma scenarios.

5. **Hydrate/lubricate** model during task by adding water. Model's compliance may decrease if dehydrated, so more is better than less.

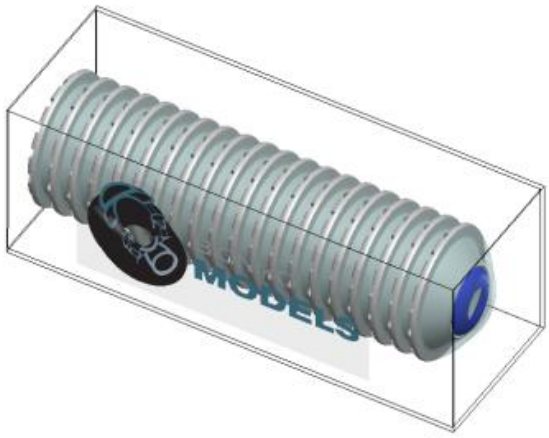
6. **Remove** used model from the **ORBIT** by inserting a closed instrument in either corner of the eyelid and leveraging the model out.

7. **Lift the suction release tab to remove HOLDER from surface. DO NOT PULL ON THE HOLDER.**

Instructions for care

Follow these recommendations to maximize the shelf life of the models:

- Store in a **cool**, **dry** and **dark** place (a drawer will be fine). Extended exposure to some indoor lights or sunlight (UV) may affect material properties. Prolonged exposure to humidity or high temperatures may adversely affect material properties.
- Do not place **heavy objects** on top of the model's box. Prolonged compression may deform the models.



FAQ

- **Q:** How can I tell if the **CORDELIA** has been soaked enough time?

A: The *cornea looks slightly hazy when hydrated properly and should feel softer and more compliant. Temperature affects softness, so use warmer water to achieve further softening. Do not exceed 40°C*

- **Q:** What happens if I soak it too much time?

A: If the *cornea looks milky white then it may have over-hydrated. The process is reversible, so let dry to regain hardness.*

- **Q:** What suture should I use?

A: 10-0 or 9-0 monofilament nylon or polypropylene is recommended.

- **Q:** Is there a conjunctiva?

A: The model currently does not have conjunctiva.