

SimulEYE Iris Suturing & IOL Fixation

Place the SimulEYE model on a smooth, flat, stable surface under the microscope. Press down on the base of the suction cup or on the outer ring at the midpoint of the eye to secure the eye in place. Do not press on the cornea or sclera. Place a small amount of water on the suction cup for the best suction.

Ensure that the SimulEYE model is in the focus range of the microscope. An elevated platform may be needed with some table top microscopes. Any platform must be held securely in place so the surgeon is free to use both hands for surgical maneuvers and will not have to stabilize the eye or the platform.

The Iris Suturing & IOL Fixation provides an eye with a flexible iris that can be easily cut and then repaired with various suturing techniques. The root of the iris can be disinserted by pulling on it gently to create an iridodialysis which can then be repaired. Various IOL fixation techniques can be practiced including iris suture fixation, scleral suture fixation and intrascleral fixation. In addition, IOL cutting and exchanges can be practiced. Multiple procedures can be performed on each model before the eye is consumed.

The pupil size is 5 mm which lends itself to iris suturing techniques and iris fixation of IOL's. Iris hooks can be used to open the pupil as needed. Iris expansion rings such as the Malyugin Ring are best used on the SimulEYE Small Pupil model which is designed specifically for those applications.

TIPS:

The eyes are filled with a gel that is thicker than typical viscoelastic which helps in minimizing bubbles. Some of the gel inside the eye will naturally escape when you make incisions and perform surgical maneuvers. Keep viscoelastic or the gel from inside the eye over the incisions to help minimize the introduction of bubbles into the eye. Place viscoelastic agent in the eye distal to the bubbles and allow them to escape through the incisions.

Mark the incision points with a fine tip Sharpie to help identify the incision locations.

Oversize the cornea and scleral incisions so that they are easier to find and also to allow instruments and sutures to pass through them more smoothly.

The cornea and scleral walls are more sticky and self-sealing than actual tissue. The best way to adjust for this is to simply make larger incisions. Viscoelastic also provides less resistance when passing instruments through the incisions.

While suturing techniques can be practiced, the scleral wall is not easily dissected and does not lend itself to creating scleral flaps or pockets.

It is best to keep the cornea clean and dry. Do not use water or viscoelastic on the cornea. If it gets on there, simply wipe it away with a clean, dry finger.