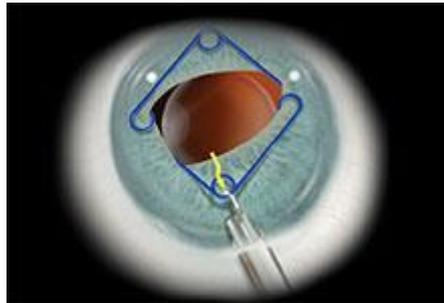
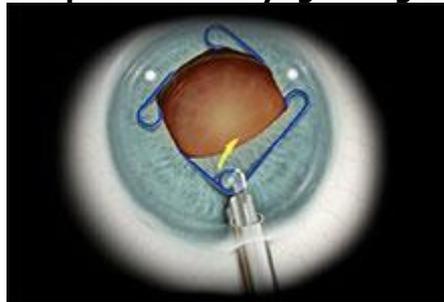


# Osher modificati on of the Malyugin ring

by Robert  
Osher, MD



**The Osher modification enables easier reengagement of the proximal Malyugin ring scroll.**



**With the modification, it is easier to remove from the proximal scroll.**



**The Osher modification to the Malyugin ring injector has 5 improvements from the previous version.**

**Source: MST**

*The modification of a popular ring in cataract surgery*

**T**he Malyugin ring (MicroSurgical Technology, MST, Redmond, Wash.) is a great tool for cataract surgeons, particularly when they are faced with a floppy iris, but some have found the insertion technique to be a bit challenging. This was the motivation for a modification that I developed to make insertion and removal of the ring even safer and more efficient, especially in smaller eyes or those with shallow anterior chambers. Here, I will

explain the design changes, how it helps in using the ring, and offer pearls for effective use.

### **Design changes**

The new inserter has a control tab with a narrower profile and an angled tip. This allows more accurate control of the Malyugin ring inside the eye with easier engagement and disengagement of the proximal scroll. This control tab is thinner than the original design. Consequently, the end of the tab fits inside the scroll of the ring more easily. This allows the surgeon to more easily place the proximal scroll onto the iris with the inserter itself or with the assistance of a separate manipulator or hook, such as the Osher manipulator, designed specifically for this device. In addition, the end of the metal portion of the tip is angled, which is useful when positioning or removing the ring, particularly the proximal scroll. The first-generation inserters required a surgeon to push the ring and apply vertical motion in order to remove any of the scrolls from the iris margin. This was particularly problematic when removing the proximal scroll, as there is very little room between the instruments and the endothelium. The Osher modification allows the surgeon to grasp the scroll securely and avoid unintentional contact with the cornea. This has been beneficial in all patients, especially those with shallow anterior chambers or smaller eyes where there is substantially less room for maneuvering the inserter. One important thing to remember when using the Osher modification is that the end of the control tab is not intended to be a push-pull hook to maneuver the proximal ring or scroll.

### **Pearls for use**

There are pearls for use that can be particularly helpful for surgeons who are not yet familiar with using this newer generation inserter. For easy insertion of the Malyugin ring, the following steps are recommended: 1. Use viscomydriasis to increase the pupil size.

2. Elevate the iris off the anterior lens capsule in 3

quadrants with a bolus of the ophthalmic viscosurgical device (OVD).

3. Place the stab incision in such a way that the subincisional iris can also be lifted off the capsule easily with OVD.

4. Insert the Malyugin ring slowly so that the distal scroll engages the iris margin first, followed by the left and right scrolls.

5. Using the control tab, disengage the proximal ring from the inserter. A second instrument is not necessary to disengage the scroll from the injector, but it may be used at the surgeon's discretion.

6. Center the Malyugin ring and then continue with the procedure. Removal of the Malyugin ring at the appropriate time is also easily accomplished by following these recommendations: 1. Leave the OVD in place during removal of the Malyugin ring.

2. Remove the distal scroll of the ring from the iris margin using a manipulator. 3. I prefer removing the left and right scrolls, but it is optional.

4. Disengage the proximal scroll with the manipulator.

5. Using the manipulator, move the proximal scroll toward the center of the pupil. 6. Place more OVD around the proximal scroll to allow the platform of the inserter to get under the scroll. 7. Engage the proximal scroll with the control tab and retract it into the inserter.

8. Using a second instrument, depress the left and right scrolls slightly to usher them into the inserter.

9. Pull the distal scroll into the inserter completely and then remove the device.

10. Complete the rest of the cataract procedure.

Ophthalmologists may find the video explanation of the modified Malyugin ring inserter useful. It shows the Osher modification in use inserting and removing the Malyugin ring during a cataract procedure. The Malyugin ring has improved the safety of cataract surgery, especially in patients with small pupils and particularly those at risk for intraoperative floppy iris syndrome (IFIS). The Osher modification of the inserter allows the surgeon to use the ring by facilitating engagement and disengagement of the proximal scroll. In addition, the design decreases vertical movement of the inserter and ring, which further reduces the risk of coming in contact with the

corneal endothelium. This improves surgeon efficiency and enhances patient safety.

## References

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**Editors' note:** *Dr. Osher is professor of ophthalmology at the University of Cincinnati College of Medicine and medical director emeritus of Cincinnati Eye Institute. He has financial interests with MST.*