



Cataract Extraction (Phacoemulsification) with Intraocular Lens Insertion (CE/IOL)

1. A 1mm paracentesis (sideport) is made using an MVR blade.
 - a. This allows two instruments to be used inside the eye.
2. Phenylephrine with Lidocaine is injected into the anterior chamber.
 - a. This assists with pupil dilation and analgesia.
3. Viscoelastic is injected into the eye to preserve its shape.
 - a. This viscous solution contains hyaluronic acid and helps prevent the anterior chamber from collapsing.
4. A 2.4mm clear or near-clear corneal incision is made temporally using a keratome.
 - a. “Near-clear” means it is slightly through the vascular portion of the cornea to assist with wound healing.
5. Continuous curvilinear capsulorhexis is achieved using Utrata forceps, creating a 5.5mm opening in the anterior capsule.
 - a. The anterior capsule is peeled away in a circular fashion to allow access to the lens.
6. Hydrodissection is achieved by injecting BSS via Chang cannula immediately underneath the anterior capsule. This will facilitate lens rotation and cortical removal.
 - a. This begins the separation of the lens from the capsule.
7. The lens is rotated to ensure complete separation from the capsule.
8. Phacoemulsification – Liquification and removal of the lens.
 - a. The lens is liquified using ultrasound and aspirated through the handpiece.
9. The remaining cortical material is removed using I/A handpiece.
 - a. The cortex of the lens that’s still adhered to the capsule is removed.
10. Cohesive viscoelastic is injected into the capsule prior to pulling out the I/A handpiece.
 - a. This makes it easier to insert the new lens because the shape is retained.
11. The foldable IOL is injected into the capsule and Kuglen hook is used to center the lens.
 - a. The new lens is placed in the capsule where the old lens was.
12. The viscoelastic is removed and BSS is injected to reform the chamber.
13. Hydration of both wounds ensure watertight seal.
 - a. Creating local edema in the cornea helps seal the wounds.