

# Ophthalmic Operations

This Section gives the definitions of the following ophthalmic operations, and the complications which can arise during and after surgery:

**Intracapsular cataract extraction (ICCE)**

**Intracapsular cataract extraction with anterior chamber intraocular lens implant (ICCE + AC IOL)**

**Extracapsular cataract extraction (ECCE)**

**Extracapsular cataract extraction with posterior chamber intraocular lens implant (ECCE + PC IOL)**

**Phacoemulsification**

**Trabeculectomy**

**Enucleation**

**Evisceration**

**Tarsal plate rotation**

## Key to symbols in this section

- ❖ marks the description of a complication associated with an ophthalmic operation.
- ⇒ highlights a complication and procedure that is referred to from the descriptions of several ophthalmic operations.
- ▼ marks a particularly important note or warning.

## ***Intracapsular Cataract Extraction (ICCE)***

### **Definition**

Removal of the entire lens by cryoextraction, manual expression or forceps (*see Figure 1-1*)

*Duration of procedure:* 20 minutes, but any complication will lengthen the time of surgery.

*Type of anaesthesia:* Local

### **Complications at time of surgery**

#### ❖ **Capsule rupture**

##### *Cause*

The outer covering (capsule) of the lens breaks, requiring separate removal of the central part (nucleus) of the lens from the capsule. Small amounts of lens matter are left behind in the eye.

##### *Management*

Removal of lens matter by gently irrigating the anterior chamber with *Ringer's Lactate* using a broad tipped cannula *eg: Lang's* or *Simcoe* irrigating / aspirating cannula. This is referred to as an unplanned ECCE.

#### ❖ **Vitreous loss**

The vitreous jelly moves forward entering the anterior chamber and incision as the lens is being delivered.

##### *Causes*

- Excess local anaesthetic causing increased pressure in the eye or retrobulbar haemorrhage.
- Previous trauma making the vitreous unstable.
- Poor surgical technique.
- Inadequate anaesthesia: the eye moves making lens removal very difficult.

The vitreous must be removed. If it remains in the incision it can result in:

- Retinal detachment
- Macular oedema
- Endophthalmitis
- Secondary glaucoma
- Distortion of the pupil
- Photophobia
- Corneal oedema

##### *Management*

#### ⇒ **Anterior vitrectomy**

An automated vitrectomy machine cuts and aspirates the vitreous whilst maintaining the depth of the anterior chamber.