# Eye Museum

## The Ordeal

Cataract surgery in the pre antibiotic era was a test of the patient's moral fortitude confronted with the uncertainty of outcome. Perioperative rituals ensuring cleanliness were as exhausting to the patient as the eye.

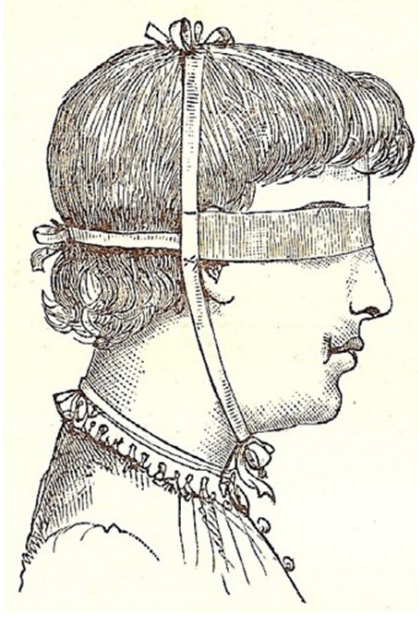
An insight to the journey can be found in *Mayou's Diseases of the Eye* 1911 and the poster of Monets cataracts on the presentations page of the Eye Museum website: https://eyemuseum.ranzco.edu/presentations/

Admitted to hospital four days prior to the procedure, the eye would be bandaged and examined the following morning for signs of discharge. Perchloride of mercury 1:6000 irrigated the conjunctiva four times daily. The bowels were opened with a smart purge! An hour before the operation, further irrigation was done using perchloride of mercury 1/2000 where the lids are thoroughly cleaned with soap and water. The eye is then washed again with boracic and a cyanide gauze applied. Prior to a needling, the point of entry was touched by a probe dipped in pure carbolic.

*Hand-blown glass undine for irrigation.*

General anaesthesia with chloroform and repeated topical cocaine was advised for deaf patients and those with want of moral control.

After the procedure, the patient was nursed flat with one or both eyes bandaged, fed a soft diet and bowels confined for three days. A bandage applied to the arm on the operated side was fastened to the bedside by a clove hitch.



*Post-operative bandaging and restraint.*

In case this reads like a medieval ordeal, the practice at the Oxford Eye Hospital in the late 1970s was conducted by the head nurse who sported a huge belt buckle from some hoary institution. She had poor sight and trimmed the eyelashes with scissors. The patient arrived in theatre with nicks to the lid margins. As a speculum was not used, the lids were opened with crisscross 4/0 sutures with attendant bruising. At that time, patients were often kept in St Vincent's Melbourne for a full week.

No wonder modern minimally invasive cataract surgery is popular.

*Original "eye mirror" by Von Helmholz.*

### A cautionary tale on the introduction of the ophthalmoscope

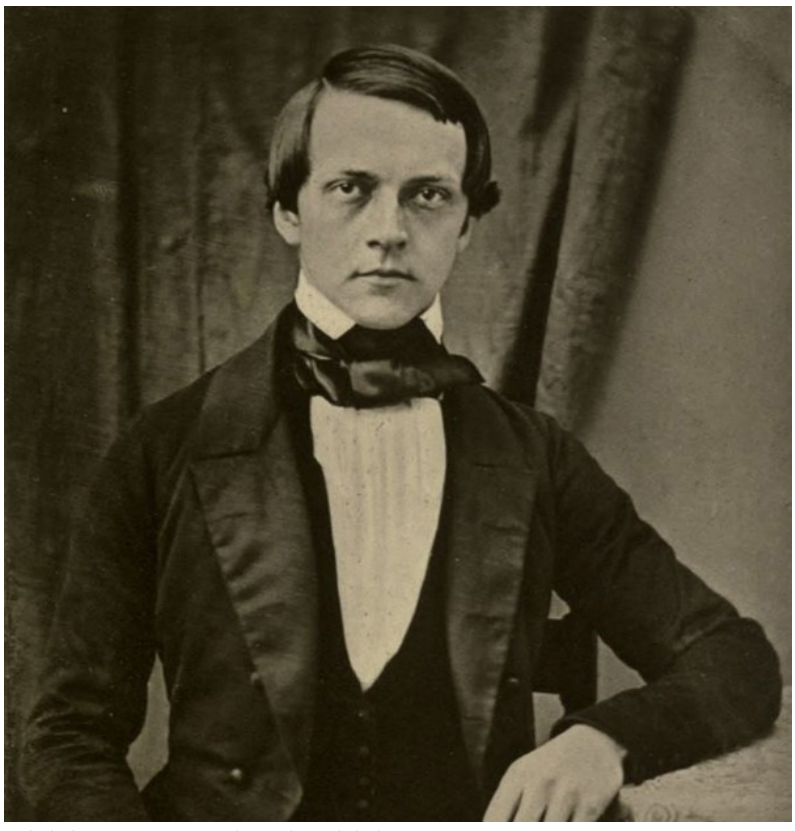
Von Helmholz utilised four plates of glass in the ophthalmoscope to increase the light rays reflected into the eye.

This instrument was introduced in 1850 following numerous attempts to visualise the interior of the eye by Reute, Kussmaul and Cumming.

Von Graefe enthusiastically embraced the concept, but its application elsewhere was met with caution.

It was argued that it was dangerous for a diseased eye to be submitted to the strain of illumination (Sorsby). Others suggested that it could be a useful instrument for such oculists that have poor sight. Even in 1853, Dixon expressed a fear that its use might lead to amaurosis—the very condition that the practitioner hoped to avert.

Opinions were expressed in France that a loupe was superior in viewing lens opacities. Although gaining support by Bowman, English scepticism was expressed in *The Lancet* five years after its introduction. Acceptance in Europe progressed slowly until 1857 when the diagnostic breakthrough was finally accepted for discussion at the first international ophthalmological conference.



*Helmholz, just prior to introducing his ophthalmoscope (1848).*

The introduction of the ophthalmoscope led to great interest in the refractive state of the eye. Donders then developed a means of objectively measuring refractive error.

These developments were revolutionary in establishing accurate diagnosis which previously had been pure speculation.

***David Kaufman***
***Curator, RANZCO Museum***

**While our name is new, our commitment to protect and preserve vision for patients remains the same.**

Come and see us at the RANZCO congress to learn about what we're doing in glaucoma, diabetic macular oedema and retinal vein occlusion.

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