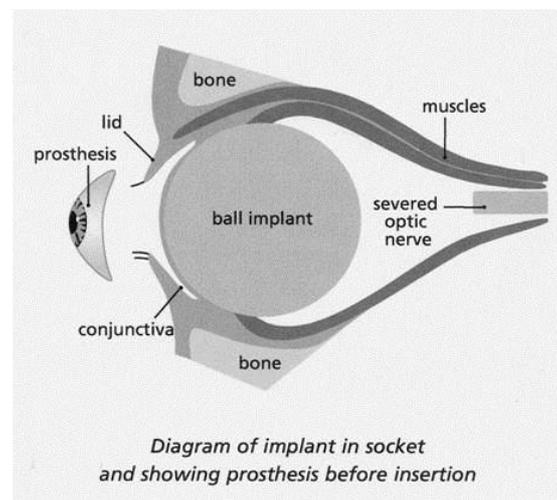


# Enucleation and evisceration (removal of the eye)

## What is enucleation and evisceration?

Enucleation and evisceration are terms that refer to surgery to remove the eye from the eye socket or orbit.

- **Enucleation** is the surgical removal of the entire eyeball leaving behind the lining of the eyelids and muscles of the eye.
- **Evisceration** removes only the contents of the eye, leaving the white part of the eye (the sclera) and the eye muscles intact.



*Image courtesy of University Hospital Coventry, United Kingdom*

## Why is enucleation or evisceration sometimes necessary?

Removal of an eye may be required following a severe injury, to control pain in a blind eye, to treat some intra-ocular tumours (tumours inside the eye), to alleviate a severe infection inside the eye, or for cosmetic improvement of a disfigured eye.

## Why choose one procedure over another?

In most other situations, either enucleation or evisceration can each achieve the desired objective. Enucleation is the procedure of choice if the eye is being removed to treat an intraocular tumour, or to try to reduce the risk of developing a severe autoimmune condition called sympathetic ophthalmia following trauma. Your surgeon will help you to determine which surgery is most appropriate for you.

## How is the surgery performed?

- Both surgeries are usually performed in the operating room under general anaesthesia, although they can be completed safely using local anaesthesia with sedation.
- After enucleation or evisceration, most of the lost volume is replaced by an implant placed in the eye socket.
- In most cases an implant will be buried behind the conjunctiva (thin skin over the white of the eye).
- In some cases the implant is wrapped in sclera (the outer white coat of a donor eye). The implant is usually connected to the eye muscles to enable movement of the implant, and later the artificial eye.
- A conformer (thin plastic shell) is often placed in the eye socket at the end of the operation to help maintain the shape of the eyelids and reduce swelling.

## What sort of implant will I have?

- There are different types of implants (the implant is buried in the eye socket as described above, and cannot be taken in and out like the artificial eye), including glass, plastic and silicone, and porous implants such as Medpor (porous polyethylene), hydroxyapatite or bioceramic.
- There are advantages and disadvantages to each type and these will be discussed with you when surgery is planned.

## What treatment is required after the operation?

- Most patients remain in hospital for two or three days after surgery to remove the eye and place an orbital implant.
- Drops and/or ointment will be used in the socket after the operation while healing takes place. This continues at home.
- A patch is usually worn over the eye socket until the artificial eye is made.
- Continued follow-up is important as the socket and eyelids may change over time and need further minor surgery. If this is needed it is only usually after many years. Careful monitoring of the socket and prosthesis by the surgeon and the artificial eye maker will help keep the socket healthy, and will allow for early detection of any changes that may require further treatment.

## Is it usual to have some sticky or watery discharge from the socket after my surgery?

- A very small amount of discharge may occur and accumulate at the inner corner overnight, but larger amounts accumulating during the day or running onto the cheek demand attention from your doctor.
- To clean away discharge, use saline solution and wipe from the outer corner of the eye (near the ear) towards the nose.
- Use each cotton ball only once and then discard it.
- Saline solution can be purchased from a pharmacy.

## When will I be fitted with my artificial/prosthetic eye?

- You will be fitted with a permanent artificial eye (prosthesis) one to two months after the operation. The delay allows all of the swelling to subside. Your surgeon will refer you to an external provider to have the prosthetic eye created and fitted. This next stage can be explained and any questions answered when you book an appointment
- The artificial eye is a bit like a large and thick solid contact lens that can be taken out and replaced to clean.
- The artificial eye will be colour matched to your remaining eye.
- The artificial eye may not move as well as a normal eye. More realistic movement can be achieved with some porous implants if a metal motility peg is inserted six months later. The artificial eye is fitted to the peg and this helps it to move.



## How do I care for my artificial eye?

- Care of the artificial eye is very simple. Most patients leave it in the eye socket for weeks or even months at a time.
- It can be removed from time to time for cleaning in a contact lens cleaning solution.
- Some patients find using a regular simple lubricating eye drop is helpful.
- The artificial eye needs to be polished by the artificial eye maker every 12 to 18 months, and may need to be replaced after about 10 years.

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