Ophthalmology department

Evisceration and enucleation (surgery for removal of an eye or part of an eye)

Information for patients, relatives and carers

Introduction

This leaflet has been designed to give you information about evisceration and enucleation and answer some of the questions that you or those who care for you may have. It is not meant to replace the discussion between you and your medical team but aims to help you understand more about what is discussed. If you have any questions about the information below, please contact us.

Outcomes of enucleation and evisceration

Removal of an eye (enucleation), or the inside of an eye (evisceration), may be necessary for a variety of reasons. The decision to have an eye removed can be emotionally demanding. Your clinician will make the time for you to discuss your concerns or ask any questions you may have. Specialist surgery combined with first-class prosthetic care can lead to a result that looks very acceptable. In many cases the symmetry and colour match between the artificial eye and the fellow eye can be very good.

What are the possible treatments for a blind eye?

In general, it is better to avoid surgery, if possible. Painted contact lenses, or shells (acrylic artificial eyes) worn over a blind eye often look as good as a real eye. However, there are reasons why surgery can be considered. These include:

- if a blind eye becomes painful even after the use of drops
- if a contact lens, or a shell, cannot be tolerated
- if the patient does not have the manual dexterity to remove the lens or shell each evening

Surgery addresses both the discomfort and allows an artificial eye (an ocular prosthesis) to be worn all the time, with only a very occasional need for its removal for cleaning.

You can speak to someone else who has had this operation

Often other patients are happy to talk about their own experience. Such patients can be contacted via the department of ocular prosthetics in several specialist eye hospitals.

Surgical procedures

Enucleation

This involves the removal of the entire eyeball (this includes the white part of the eye, the sclera). In its place a permanent solid spherical implant or ball is placed deep within the socket to compensate for the loss of volume. The muscles that move the eye are reattached to this implant.

The superficial membranes (including the tissue that lines the inside of the eyelids and covers the sclera called the conjunctival) are stitched over the front surface of the implant or ball, which remains permanently covered. Once the surface inflammation has settled, usually within a few weeks, an artificial eye (prosthesis), like a shell can be worn on top.

This artificial eye is held in place by the eyelids. The deeper ball implant typically remains in place for life and usually requires no further attention. For patients who are not suitable for such an implant, a piece of tissue taken from the abdomen or buttock can be used instead.

Evisceration

In this operation, the sclera is not removed but used as a natural wrapping material to cover the ball implant. This operation is easier to perform but cannot be performed on patients who have had an eye tumour. It offers the advantages of better movement of the prosthesis and a more rapid recovery for the patient.

Does removal of an eye cause inflammation in the other eye?

An exceptionally rare form of inflammation, called sympathetic ophthalmitis, can occur in the healthy eye any time after an open eye injury or an operation on the eye that exposes the uvea (the pigmented layer of the eye).

This occurs because the exposed contents of an injured eye can activate the body’s immune system against the same tissues in the healthy eye. Though this inflammatory problem is treatable in the majority of patients, it can – very rarely – lead to loss of sight in the good eye.

The risks for both enucleation and evisceration procedures are extremely low.

After surgery and how long you need stay in hospital

During surgery, the deep implant that is placed tends to result in a gentle stretching of the socket tissues. This can result in pain and nausea during the first 72 hours after surgery.

Patients are offered an overnight stay in hospital and will be discharged only when they feel ready to go home. You will be given regular strong painkillers and anti-sickness medications.

The dressing is removed at home.

A review is scheduled for one to two weeks later. This is when the stitches temporarily holding the lids together can be removed.

Preparing the artificial eye

- **Temporary clear shell is fitted**: during surgery, a temporary clear shell is placed behind the eyelids to help prevent the socket from contracting in the weeks after surgery.

  As a result, for 6 to 10 weeks after surgery the eyelids are open and only a clear plastic shell can be seen. This will be from when the temporary stitches are removed until review by the ocularist (a specialised eye professional who restores the appearance of an eye). Though this is generally not a problem, some patients prefer to wear a patch or dark glasses over the eyelid until the artificial eye is fitted.

- **Ocularist (an expert in making and fitting artificial eyes) plans artificial eye**: in a painless process, the ocularist takes an impression of the socket. This is used to create a bespoke artificial eye which matches the colour of the other eye.

- **Artificial eye is fitted:** the artificial eye is fitted 3 to 4 months after the surgery when the wound is secure, and all the swelling has gone down.

How you will look after surgery

Your artificial eye, or ocular prosthesis, is designed and fitted by an ocularist. They have considerable experience in both making and fitting bespoke artificial eyes and monitoring the subsequent fit and health of eye sockets.

During the healing phase after surgery, you will wear a clear plastic shell (a surgical conformer) inserted behind the eyelids to maintain the shape of the socket during the healing process. During this interval, any socket inflammation and swelling will gradually resolve. Your bespoke artificial eye is then made, using the colour and characteristics of your normal eye as a template. It is usually fitted as soon as your socket has completely healed. This can take 2 to 3 months. It is important that your artificial eye is not fitted too soon as this can disrupt the wound and make exposure of the buried implant more likely.

Taking care of an artificial eye (prosthesis)

Paying good attention to socket and eyelid hygiene and maintenance of the artificial eye help prevent problems such as discharge and discomfort.

The artificial eye should be removed for cleaning, though how often varies from person to person.

It is wise to use artificial tears three to four times a day and at bedtime to keep the surface lubricated.

The artificial eye should be checked and polished at least once a year by an ocularist and often needs replacing after five to seven years. The socket will be checked at the same time to make sure that there are no problems.

Are any further operations needed?

With the simple measures mentioned above, most artificial eyes last a long time. However, there are certain conditions which may require drops or further surgery to enable an artificial eye to be worn successfully.

Why does the upper eyelid sometimes appear hollow when wearing the artificial eye?

The removal of an eye can result in the loss of some of the volume of a socket. This can give the eyelids a hollowed appearance, even after the use of an orbital implant. This is due to atrophy (shrinkage) of the fatty cushions deep within the socket. This hollowed appearance (often referred to as post enucleation socket syndrome) can be addressed by increasing the volume deep in the socket and allowing a thinner and therefore lighter artificial eye to be worn. This can be done in several different ways, for example, by placing additional implants into a different surgical space in the socket.

Can the use a larger artificial eye to address ‘volume deficiency’?

Increasing the size of the prosthesis to compensate for socket volume deficiency can address small degrees of hollowing. In many patients, this is either adequate or preferable to undergoing further surgery. However, over time a large prosthesis tends to weigh on the lower eyelid, causing floppy eyelids (laxity), and may not move as well as a lighter prosthesis. Although lid laxity can usually be treated by tightening the lid, if the main problem is volume deficiency, this also should be addressed.

Why is the artificial eye unstable?

For an artificial eye to sit comfortably in the socket there need to be a sufficiently large pocket (conjunctival fornix) behind both the lower and upper eyelids. Making these pockets or fornices shallower can lead to:

- discomfort (due to irritation of the mucosal lining)
- mucus discharge
- an unstable artificial eye
- difficulty inserting the artificial eye.

This is addressed by ensuring that there is sufficient volume in the socket, and then enlarging the fornices either by redistributing local tissue, or by placing a graft of oral mucosa taken from the inside of the lower lip into the socket. Most patients do not require this procedure.

Driving after removal of an eye

For private car or motorcycle drivers, if vision is normal in the other eye and you have no other medical conditions, the DVLA does not need to be informed. The law is different for HGV drivers.

If you have any doubt about your fitness to drive, please contact the DVLA using the following link: http://www.direct.gov.uk/en/Motoring/DriverLicensing/MedicalRulesForDrivers/MedicalA-Z/DG_185682

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Useful contact telephone numbers for you

If you have questions before your appointment, please contact the pre-assessment nurse on **020 3312 9729/9730** at Western Eye Hospital or **020 3311 0137** at Charing Cross Hospital between 09.00 and 17.00, Monday to Friday.

If your eye becomes red or painful, or have any other concerns, please contact:

Western Eye Hospital emergency department:

020 3312 3245

Western Eye Hospital eye clinic:
020 3312 3236

Alex Cross ward at the Western Eye Hospital:

020 3312 3214

Charing Cross Hospital eye clinic:
020 3311 1109 or 020 3311 1233

Charing Cross Hospital – Riverside Daycare unit:

020 3311 1460

If you have not received a post-surgery appointment, please contact **020 3312 3275 option 2** or email imperial.wehoutpatients@nhs.net

Patient support

The Royal National Institute of the Blind may offer some help on the loss of an eye. They can be contacted on 0303 123 9999 or email: helpline@rnib.org.uk

How to comment about your visit

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any suggestions or comments about your visit, please either speak to a member of staff or contact the patient advice and liaison service (PALS) on 020 3313 0088 (Charing Cross, Hammersmith and Queen Charlotte's & Chelsea hospitals), or 020 3312 7777 (St Mary's and Western Eye hospitals). You can also email PALS at imperial.pals@nhs.net The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to complain by contacting our complaints department:

Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street
London W2 1NY

Email: ICHC-tr.Complaints@nhs.net

Telephone: 020 3312 1337 / 1349

Alternative formats

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Ophthalmology
Published: November 2023
Review date: November 2026
Reference no: 5218