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 answers 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.

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 very acceptable aesthetic result, and in many cases the symmetry and colour match between the artificial 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, if a blind eye becomes painful even after the use of drops, or a contact lens, or a shell cannot be tolerated, or if the patient does not have the manual dexterity required to remove the lens or shell each evening, then surgery can be considered. Surgery addresses both the discomfort and allows an artificial eye (an ocular prosthesis) to be worn continuously with only a very occasional need for its removal for cleaning.

Is there anyone I can speak to who has had this operation?

Yes. Often other patients are happy to talk about their own experience. Such patients can be contacted via the department of ocular prosthetics in a number of specialist eye hospitals. There are two options for removal of an eye:

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, and the muscles which 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), similar to a shell can be worn on top.

This 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 an eye tumour. It offers the advantages of better movement of the prosthesis and a more rapid recovery for the patient.

Does the 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. Although treatable in the vast majority of patients, such an inflammatory problem, rarely lead to loss of sight in the good eye. The risk for both enucleation and evisceration procedures are extremely low.

How long do I stay in hospital, and when is the artificial eye first fitted?

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 pain killers and anti-sickness medications. The dressing is removed at home and a review is scheduled for one to two weeks later when the stitches temporarily holding the lids together can be removed.

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, from the time of removing the temporary stitches until review by the ocularist (about six to ten weeks after surgery), the eyelids are open and only a clear plastic shell can be seen. Generally, this is not a problem for some people, however, some patients prefer to wear a patch or dark glasses over the eyelid until the artificial eye is fitted.

The ocularist (specialised eye professionals who restore the appearance of an eye) takes an impression of the socket this (is not a painful procedure), to create a bespoke artificial eye which matches the colour of the other eye. This is fitted three to-four months after the surgery when the wound is secure, and all the swelling has subsided.

What problems can occur wearing an artificial eye (prosthesis)?

The artificial eye should be removed for cleaning, the frequency of which 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. Good attention to socket and eyelid hygiene, and maintenance of the artificial eye means problems such as discharge and discomfort can be generally prevented.

How will I look after surgery and when can I wear an artificial eye?

The 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, the patient wears 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. The bespoke artificial eye is then made, using the colour and characteristics of the normal eye as a template. It is usually fitted as soon as the socket has completely healed. This can take two to three months. It is important that the artificial eye is not fitted too soon as this can disrupt the wound and make exposure of the buried implant more likely.

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 can the upper eyelid sometimes appear to be hollow when wearing the artificial eye?

The removal of an eye can result in the loss of some of the volume of a socket, giving 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 a number of different ways e.g. by placing additional implants into a different surgical space in the socket.

Surely a larger artificial eye can address the appearance of ‘volume deficiency?

Increasing the size of the prosthesis to compensate for socket volume deficiency can address small degrees of hollowing, and in many patients 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. Shallowing of these fornices can lead to discomfort (due to irritation of the mucosal lining), mucus discharge, an unstable artificial eye, and 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. The majority of patients do not require this procedure.

Am I allowed to drive 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

Who can I contact for more information?

If you have questions before your appointment, please contact the pre-assessment nurse on **020 3312 3230**/**3240** at Western Eye Hospital or **020 3311 0137** at Charing Cross Hospital between 09.00 and 17.00, Monday to Friday.

For further advice after your surgery, please contact Alex Cross ward on **020 3312 3327** or in an emergency please contact the eye emergency department on **020 3312 3245**

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 do I make a comment about my 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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