Patient information

Orbital Decompression Surgery

Ophthalmology Department – Aintree Hospital

Who is this leaflet for?

This leaflet is for people who are undergoing orbital decompression surgery.

What is orbital decompression surgery?

The orbit is the bony space in the skull that contains the eyeball, optic nerve, eye muscles and orbital fat.

Orbital decompression is an operation to allow the eye to move back into the orbit. This is achieved by removing bone, orbital fat or nasal sinuses adjacent to the orbit. This in turn creates more space in the orbit, allowing the eye to fall back into a more normal position.

It may take three hours to perform the surgery on one side. Usually, surgery is completed on one side first to be followed a couple of months later by the other side, if indicated.

It may involve burring away at the bones of the skull and removal of bone close to the base of the skull (cranial cavity containing the brain).

Why am I being offered this operation?

Most commonly people who have proptosis (protruding eyes) are offered this operation to improve their appearance, which has been altered due to a disease process such as Thyroid Eye Disease (Graves Orbitopathy).

In some cases the surgery is done urgently to save vision in those who have not responded to medical therapy for Thyroid Eye Disease.

What additional procedures may be required?

Usually this operation is performed alone and any other procedures that may be required, such as eyelid surgery, are performed at a later date.

What are the benefits of surgery?

The goal of this surgery is to move the eye back into the orbit so that it is less prominent.

This may have the additional effects of reducing a sensation of pressure behind the eye, enabling better closure of the eyes, reducing conjunctival and eyelid swelling.

What are the alternatives to surgery?

Assuming that no medical treatments, like intravenous steroids or radiotherapy, are indicated, there are no alternatives to this operation that can effectively move the eye back into the orbit.

It may be possible, if the protrusion of the eye is mild to moderate, to reduce the appearance of this by operating on the eyelids alone. An upper lid may be lowered or a lower lid raised, to mask the protrusion of an eye. This is usually only effective in milder cases.

What will happen if I decide not to have surgery?

Most people who have this surgery have reached a stable steady state, which means that their condition does not usually get worse. Therefore if you do not proceed with orbital decompression surgery, you are likely to stay as you are.

What will happen before surgery?

Before the operation your consultant will see you in the clinic.

The consultant will ask you about your problem. He/she will also ask about other medical problems you have and medications you take (bring a list or the tablets themselves with you to clinic).

The doctor will examine both of your eyes. If you are to proceed with surgery the operation will be discussed in detail. This will include any risks or possible complications of the operation and the method of anaesthesia.

You will be asked to read and sign a consent form after having the opportunity to ask any questions.

You will also see a preoperative assessment nurse. You will have blood tests and an ECG (heart tracing) if required. You will be told for how long you should starve before the operation.

What should I do about my medication?

In some cases you may be asked to stop or reduce the dose of blood thinning tablets like: warfarin, aspirin, clopidogrel (plavix), dipyridamole (persantin), Pradaxa (dabigatran), Xarelto (rivaroxaban), and Eliquis (apixaban).

This decision is made on an individual basis and will be discussed with you before surgery.

Other medication should be taken as usual unless the pre-operative team instruct you otherwise.

What are the risks and possible complications of surgery?

Loss of sight: A blood haematoma collecting in the orbit, behind the eye, may compress the nerve of vision and threaten eyesight.

It is extremely rare for this to occur.

It presents as pain, loss of vision and a bulging forwards of the eyeball and is an emergency.

It is also possible to lose vision as a direct result of the surgery but this is equally rare.

Double vision: The muscles that move the eye may become inflamed or their function reduced after surgery. Initially this can cause double vision, which may affect your ability to drive.
In most people this is temporary and resolves spontaneously. If persistent it is managed with a combination of occlusion with spectacles or botulinum toxin injections into the eye muscles.
If the problem is prolonged, surgery to the eye muscles may be offered at a later date.

Infection might present as increased swelling and redness of the skin. There might also be yellow discharge from a wound. Infection is treated with antibiotics.

Bleeding may present as fresh blood oozing from the site of surgery or a lump appearing near the wound after the operation.
Simple pressure on a skin wound is usually enough to control minor bleeding. It may require a return to theatre if more severe.

Further surgery: A complication such as bleeding may require a return to theatre in order to prevent visual loss.

Other aspects of the disease such as eyelid retraction and limited eye movement may require separate operations to improve function and appearance.

Pre-operatively your surgeon will estimate the amount of surgery you require to move your eye back to the correct position.

Usually this is accurate but sometimes the eye moves back less than expected. If that is the case further decompression surgery, if possible, may be offered.

Postoperative pain and inflammation: There is always some inflammation, bruising and pain after surgery. Throughout your stay in hospital you will be prescribed a range of analgesic medication.

You should not worry about postoperative pain because you will receive whatever painkillers are required to control it.

You will not be discharged until you are happy with your pain control medication.

Scar: Commonly orbital decompression surgery involves a small incision at the outer junction between the upper and lower eyelid, within the ‘crows feet’ area.

It is usually less than one centimetre and heals very well with minimal scarring.

Eyelid Retraction or malposition: Both upper and lower eyelid retraction may occur with orbital diseases such as thyroid eye disease (Graves Orbitopathy).

However it may also occur or be exacerbated by orbital decompression surgery. If this does not resolve spontaneously, surgery may be performed to correct it.

Meningitis: If bone removal is too aggressive, a leak of brain fluid (cerebrospinal fluid – CSF) may occur and is itself a risk factor for meningitis. This is potentially serious but extremely rare – it has never happened to any of the surgeons treating you but has been reported elsewhere. If it occurred it would be treated with antibiotics.

Loss of life: This has been reported in an extremely small number of cases over the history of this procedure and never in this department.

What type of anaesthesia will I have?

This procedure will be carried out under general anaesthesia. This means you are completely asleep with a breathing tube inserted.

What are the risks of anaesthesia?

You will have the opportunity to discuss the risks of anaesthesia with your surgeon and anaesthetist prior to surgery. It is worth noting that modern anaesthesia in all its forms is extremely safe.

General anaesthesia has an extremely low risk of heart attack, stroke and death. The risk very much depends upon your general health and will be assessed prior to surgery.

Anaesthetic risks can usually be greatly reduced by thorough pre-operative assessment, which you will receive.

What should I expect after surgery?

After surgery you may experience some pain. Simple paracetamol/codeine is usually enough to control this. For some people the pain is more severe requiring morphine type painkillers. For this reason it is routine to admit patients over night to ensure pain is well controlled prior to discharge.

The eyelids may be bruised and swollen. Bruising will take up to two weeks to settle. Swelling is greatly reduced after two weeks but may not completely resolve for three months.

Double vision is usually transient and self-resolving. This will be assessed when you return to clinic a week after surgery.

Pre-operative instructions for orbital decompression surgery

Do’s

- Dress in loose fitting casual clothes.
- Avoid bringing valuable items, such as jewellery, into hospital.

- Thoroughly wash the face and remove all traces of makeup to reduce your chance of an infection.
- Remove your contact lenses.
- Inform your consultant of all your medication and discuss which should be taken on the day of surgery.
- It is usually recommended that all medications be taken until and including the day of the surgery.
- Please attend the hospital $1^{1}/_{2}$ hours prior to the start of the surgical list.

Don’ts

- Please refrain from any non-steroidal anti-inflammatory painkillers such as aspirin, brufen, ibuprofen and voltarol for a period of one week prior to surgery, if in doubt, ask your consultant or your general practitioner.
- Refrain from alcohol consumption for two days prior to surgery, on the day of surgery and the following day.
- Refrain from smoking for a month prior to surgery and a month after.
- Please do not wear eye make up on the day of surgery.

Postoperative Instructions

If any swelling, bruising, discomfort or pain worsens or a discharge (pus) appears around suture line, contact the hospital / clinic immediately. See contact numbers at the end of the leaflet.

First day post operatively

- Remove your eye pad the following day.
- Hot showers and baths are to be avoided for the first day.

- Avoid hot drinks for the first day. You can drink tea and coffee but not piping hot.
- Sleeping in an elevated position for 48 hours reduces the swelling. Try using an extra pillow. Sleep is important, so do not persevere without sleep.
- You should rest but you may start your usual daily activities.
- Take your usual medications and eat as you would normally would.
- Avoid certain medications **if instructed to do so** e.g. Warfarin Aspirin and other unprescribed painkillers.
- Take the additional medications prescribed as instructed.
- Drink lots of water, clear fluids, cold drinks, clear soup and tea for the rest of the day.
- You may have a light lunch or dinner, as long as it is 4 hours after surgery, provided you are hungry and are not feeling nauseated.

General post-op instructions

- You will be given Chloramphenicol eye ointment for the eyelids and any incisions before you are discharged.
- Apply the Chloramphenicol ointment with clean fingertips along any incision lines and to the eyelids four times a day for two weeks, running from the inside along the stitches to the outer end.
- If non-absorbable stitches have been used, these are removed by your consultant at your follow up appointment one to two weeks later. This includes any sutures that have been placed to hold your eyelids shut.
- If absorbable stitches have been used these will fall out after a few weeks.

- The follow up appointment will be organised for you before your discharge.
- Cool compresses should commence as soon as the pad is removed or immediately if there is no pad.
- Hourly for ten minutes for the first day. This may continue four times a day after this if you find it beneficial.
- Cleanse the lids with cotton wool dipped in cooled boiled water or sterile saline for ten days.
- Do walk but avoid any form of exercise for ten days.
- Reading and watching television is fine.
- Please try not to bend-over very much for the first two days after surgery.
- If your eye is patched, try not to put your head below your chest for three days.
- Try not to move your eyes around very much. This will lessen the amount of general discomfort you may have.
- If you have pain within two hours of surgery, start taking the painkiller prescribed (or two 500mg paracetamol tablets every six hours) for 48 hours following surgery.
- Eye make up can be used one week after surgery.

Feedback

Your feedback is important to us and helps us influence care in the future.

Following your discharge from hospital or attendance at your outpatient appointment you will receive a text asking if you would recommend our service to others. Please take the time to text back, you will not be charged for the text and can opt out at any point. Your co-operation is greatly appreciated.

Further information

Who do I contact if I have questions or concerns?

In emergency:
Tel:0151 529 0186 / 0187
Or
Tel: 0151 525 5980

Pre-op assessment nurses:

Tel:0151 529 0178 / 0179
Secretary for Mr McCormick and Mr Hsuan:

Tel:0151 529 0142

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All Trust approved information is available on request in alternative formats, including other languages, easy read, large print, audio, Braille, moon and electronically.

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