

DEPARTMENT OF
OPHTHALMOLOGY

Orbital Surgery

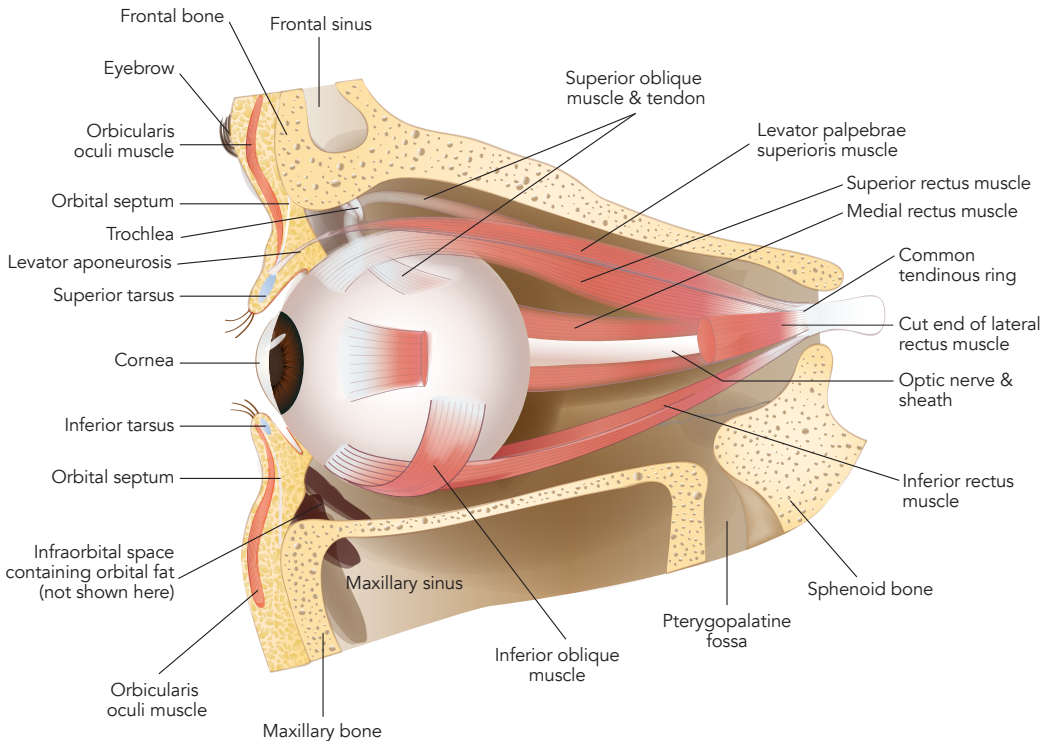


You have been given this booklet because your ophthalmologist (eye doctor) has recommended orbital surgery. This information booklet explains what the surgery involves, the risks and benefits of the operation, and how to care for your eyes after surgery.

UNDERSTANDING ORBITAL SURGERY

What is Orbital Surgery?

It is surgery which involves the area of the orbit (eye socket). This area (orbit) is bound by the bones surrounding the eyeball. It is close to several important structures within the skull, including the sinuses and the brain.

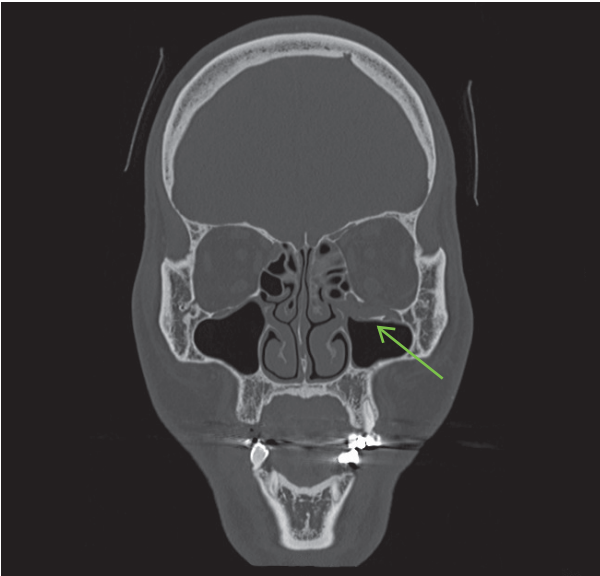


Anatomy of the orbit (view from the side of the left orbit).

Why do I need Orbital Surgery?

Your doctor has recommended this surgery for one of the following indications:

1. To repair an orbital fracture



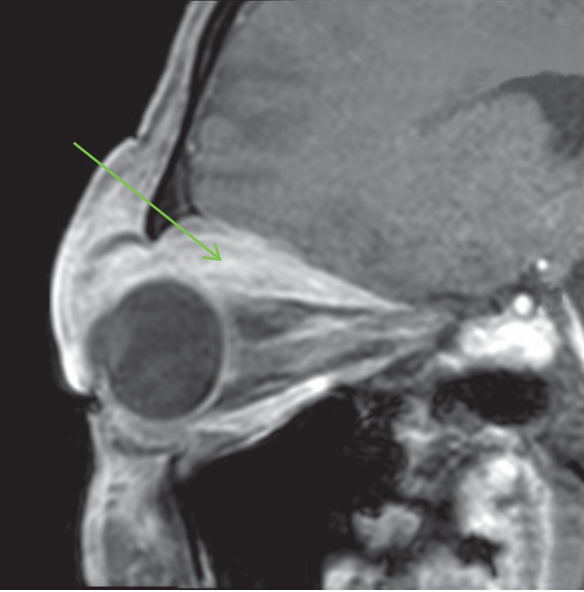
Computed tomography (CT) scan showing a displaced left orbital floor fracture.

2. To remove a tumour



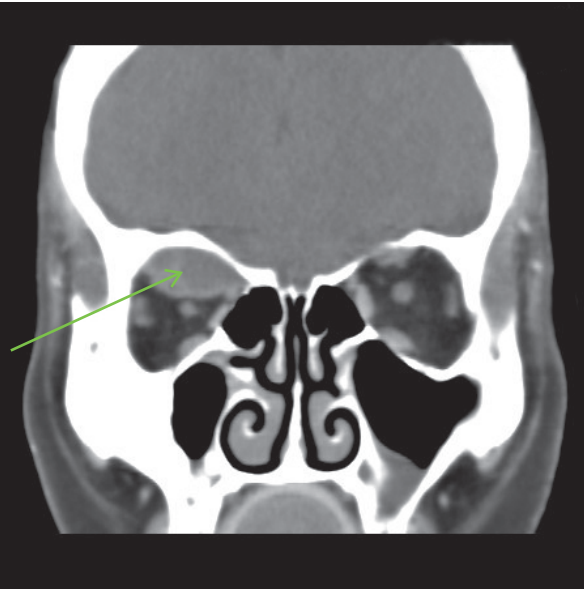
Scan showing a large tumour of the left lacrimal gland which requires surgical removal.

3. To do a biopsy of the tissue in the orbit



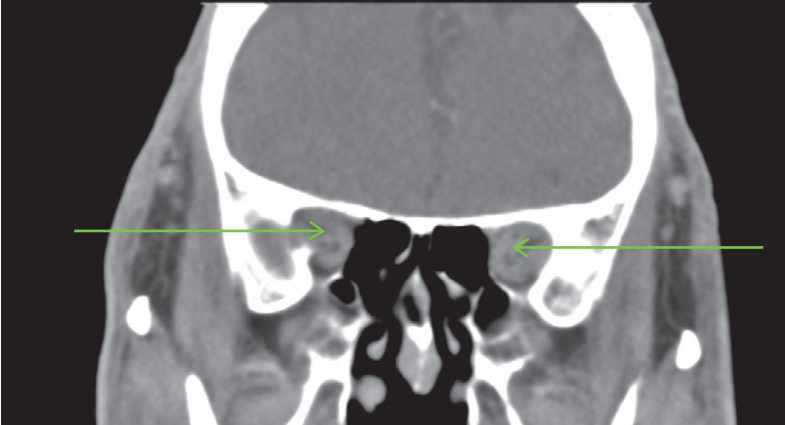
Scan showing muscle enlargement within the orbit requiring biopsy to aid diagnosis.

4. To remove the source of an infection



CT scan showing a subperiosteal abscess in the superior orbit (right side).

5. To decompress the orbit to relieve the pressure on the optic nerve



Bilateral orbital apex crowding causing optic nerve compression, one of the indications for orbital decompression surgery in thyroid eye disease.

What are the different forms of Orbital Surgery?

There are different types of orbital surgery, some of which deal with more superficial parts of the orbit, and some which require more extensive surgery within the orbit. Some may involve surgical incision and stitching on the eyelid and some which may not.

Your doctor will explain in more detail about the type of orbital surgery which you may require.

What are the possible complications arising from Orbital Surgery?

There are some risks associated with orbital surgery that you need to be aware of.

The following are the major potential complications of an orbital surgery but this is not an exhaustive list of all risks:

The main risks are that of

- Orbital haemorrhage – due to rebleeding from blood vessels within the orbit after surgery.
- Infection – signs include pain, eye discharge, eye swelling, fever, chills.
- Double vision – this may be temporary due to swelling and anaesthetic injections around the orbit. It could be permanent in some cases resulting from the surgery or disease process.
- Cerebrospinal fluid (CSF) leak - leak due to an abnormal fracture line affecting the base of the skull.

- Loss of vision – this may rarely occur due to orbital haemorrhage.

As with any surgery, there are also risks from the anaesthetic, including that of stroke and heart attack, which may be life-threatening.

You will be assessed thoroughly by your team of doctors before the operation. Your ophthalmologist will explain these risks to you in more detail before you sign the consent form.

What do I need to do before the surgery?

You will need to continue your blood pressure medications on time as usual if you are known to have hypertension.

If you take **aspirin, or blood-thinning agents** such as warfarin, you will need to check with your physician how you could safely stop these drugs for a period of time **before and after** the surgery.

These medications/supplements need to be **stopped for a minimum of 3 weeks before and after the surgery**, as they can cause significantly more bleeding during and after the surgery:

- Gingko
- Ginseng
- Garlic pills
- Vitamin E
- Fish oils
- Cordyceps

What happens on the day of the surgery?

You will be advised when to stop eating and drinking before the operation. You will be asked to arrive either early in the morning if your operation is to be in the morning, or late morning for afternoon surgery. Normally you will need to stay at least one night in hospital. You may wish to bring an overnight bag with toiletries and a change of clothes.

What happens during Orbital Surgery?

Orbital surgery is usually performed under regional or general anaesthesia. A local anaesthetic injection is given to the eyelid area where surgery will be performed.

As such, you will not feel any pain during the surgery. You will be admitted for one night to observe for any bleeding after the surgery.

ORBITAL SURGERY POST-OPERATIVE INSTRUCTIONS

This section provides key information for after-care in patients who have undergone orbital surgery. Taking these precautions may help to reduce risks and complications.

The time frames stated are rough guides, and may differ from patient to patient. Always clarify any doubts with your doctor.

THE FIRST FEW DAYS AFTER SURGERY

What to expect

- The operated eye may have slight redness or swelling (2 – 3 weeks).
- Effects from the local anaesthetic which will wear off over 1 – 2 days, including:
 - Numbness over the injected side of the face.
 - Light headaches.
- Mild pain may be present. This should be relieved by painkillers (analgesics) that will be prescribed.
- The eye on the operated side of the eyelid will be mildly irritated and uncomfortable (usually for 1 – 2 weeks but recovering steadily).
- The eyelid may be drooping, swollen or bruised (usually for 2 – 3 weeks).
- Vision may be slightly blurred (usually for 2 – 4 weeks but recovering steadily).
- There may be double vision (lasting up to 1 month).
- Clinic visits: One visit the very next day, another in the first week, then again within the next month.

These symptoms will gradually disappear over the next 4 to 6 weeks.

What I must do/what is safe to do

- Start all medications as prescribed.
- Apply the eye drops and ointment as instructed. Refer to the section on "Eye drop/ointment medications".
- Clean your eyes as instructed twice daily with sterile/clean cotton balls - slightly wet with sterile saline or cool boiled water, and do not allow water to enter the eye.
- Rest at home for the first 3 days.
- The following activities are safe: watching television, computer work, leaving the house to visit clean and uncrowded areas.
- Protective sunglasses can be worn to protect your eye when outdoors.
- There is no dietary restriction. Take plenty of fruits and vegetables to avoid constipation.

SPECIFIC POST-OPERATIVE CARE:

- Do not remove any tube or drain placed until review by your surgeon.
- **Please rest** at home after surgery. You should
 - Sit upright in a chair
 - Sleep with head elevated 30 degrees for 4 to 5 days to minimize bruising and swelling.
- **Day 1 to 3: Cold compress** 3 times a day, to reduce swelling and discomfort
 - Each session about 10 to 15 minutes.
 - Use ice packs or frozen peas in a clean bag, and lay it on a clean towel over the operation site.
- **Day 4 to 7: Apply warm compress** to reduce bruising.
 - Use a warm **hard-boiled egg** or a small **microwaved potato** wrapped in a clean washcloth. Test it on the back of your hand before applying onto the wound.
 - Apply the warm compress against closed eyelids for about **15 minutes at least 3 times per day.**

ABOUT 1 – 2 WEEKS AFTER SURGERY

What to expect

- Eye irritation should be less.
- Vision should become more stable/ partially clearer.
- Your Oculoplastic specialist will gradually tail off your eye drops/ointment over weeks to months.
- There may be removal of sutures (stitches) in some cases.

What I must do/what is safe to do

- Protective sunglasses can be worn if outdoors.
- As above.

ABOUT 4 – 6 WEEKS AFTER SURGERY

What to expect

- Your eye should feel more comfortable now.
- The maximum potential for visual recovery is attained at around this time.
- Your Oculoplastic specialist will gradually stop your eye drops/ointment.

What I must do/what is safe to do

- Light exercise like walking is allowed.
- You can resume most other activities after 6 weeks when you feel up to it.

WHAT TO AVOID

- Avoid crowded and dusty places (3 weeks).
- Work (usually 3 – 4 weeks hospitalisation leave is given).
- Water/Soap touching the wound/entering the eyes (4 weeks). (If it does get in, wash it out by instilling the eye drops prescribed)
- Coughing or sneezing too hard (4 weeks).
- Rubbing/pressure on the eye (6 weeks).
- Strenuous physical activities, e.g. jogging, tai-chi, ball games (6 weeks).
- Swimming and hot tubs (6 weeks).
- Carrying heavy objects (6 weeks).
- Carrying children who may accidentally poke your eye (6 weeks).
- Bending down to pick up things (6 weeks); if necessary to do so, do it with a straight back and be careful of not knocking the eye/head when standing up.
- Driving (subject to your doctor's advice).

MEDICATION

- Eye drops and all medications to be taken as prescribed (refer to the section on "Eye drop/ointment medications").
- Most other usual oral medications can be continued upon returning home.
- However, please note that **blood thinning agents (aspirin, anticoagulants and other antiplatelets)** can be continued only after consulting your surgeon.
- Instill eye drops before applying ointment (refer to the section on "Eye drop/ointment medications").
- Apply eye ointment (antibiotic) over the skin wound (please refer to the section on "Eye drop/ointment medications").

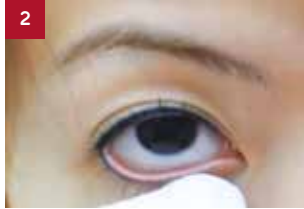
**Your vision may be blurred by eye ointment.

Eye drop/ointment medications

Eye drop treatment



1 Wash your hands before applying eye drops/touching the eye.



2 Use cool, boiled water or sterile saline to gently clean the eyelids whenever the eye feels sticky) with a sterile cotton ball.



3 Shake the bottle and remove the cap.



4 Hold the bottle close to the eye without touching the eyelid or eyelashes.

Tilt your head back, look upwards and pull the lower eyelid down.

Instill one drop into the eye.



5 Close the eye.

Do not rub the eye.

Gently dab off any excess eye drops.

Eye ointment application



1 Remove the cap from the tube of ointment.



2 Hold the tube close to the eye without touching the eyelid or eyelashes.

Squeeze a 1 cm ribbon of ointment onto a clean cotton tip applicator, or the tip of a clean finger. Apply this on the skin wound (where the stitches are). Do not rub the eye.

It is safe even if the ointment enters the eye; it may cause very mild blurring of vision. Gently dab off any excess ointment.

IN ALL CASES

- Keep eye drops in a cool place.
- Discard the eye drops one month after opening or upon their expiry date.
- If more than one type of eye drops are to be applied to the same eye, wait **3 – 5 minutes** before instilling the next eye drop.
- Always instill eye drops before eye ointment.

FOLLOW-UP APPOINTMENTS

- You will be examined regularly at the hospital. Remember to keep your appointments with the doctor as we want to ensure you have an uneventful recovery and good surgical outcome.

WHAT TO DO IN AN EMERGENCY?

Please call us at Tel: 8126 3632 during office hours if you experience the following:

- **Significant pain, redness or blurring of vision**
- **Severe swelling or excessive discharge** from the eye

Office hours:

- Monday – Friday: 8am – 5pm
- Saturday: 8am – 12noon

*Closed on Sundays and Public Holidays.

After office hours, you are advised to seek treatment at the Emergency Department (A&E), Basement 1, Tan Tock Seng Hospital.

Clinic Appointments and Eye Screening

Subsidised: (65) 6357 7000

Private: (65) 6357 8000

Email: eye@ttsh.com.sg

Website: www.ttsh.com.sg/eye

LASIK Enquiries

Tel: (65) 6357 2255

Email: lasik@ttsh.com.sg

Website: www.ttshlasik.com.sg



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