

Pterygium Surgery

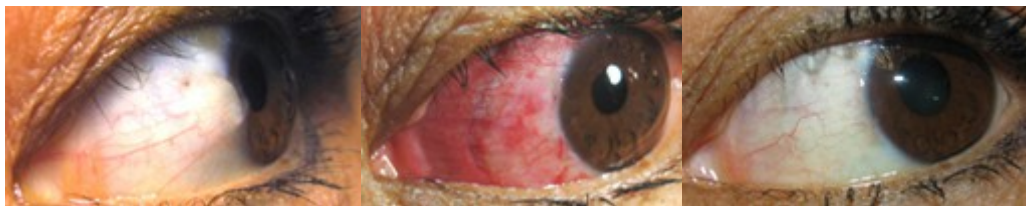
St James's University Hospital Patient information

What is a Pterygium?

Pterygium (pronounced "tur-RIDGE-ium") is a benign thickening of the outer coating (conjunctiva) of the eye that grows onto the cornea. As a pterygium grows, it may become red and irritated. Eventually, it may cause visual disturbances by disrupting the normally smooth surface of the cornea. In severe cases, a pterygium can block a patient's vision altogether.

Pterygium surgery involves removal of the abnormal pterygium tissue and the gap in the conjunctival tissue, where the pterygium was removed, is filled with a transplant of tissue that has been painlessly removed from underneath the upper eyelid.

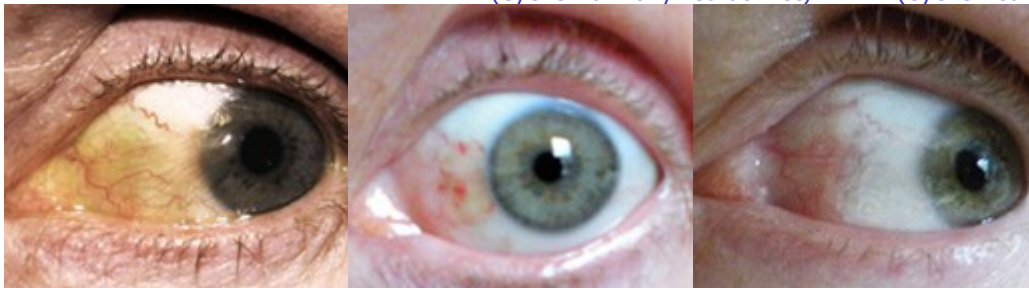
BEFORE and AFTER Pterygium Removal



Pterygium Before Surgery

1 Day After Surgery
(eye is normally red at first)

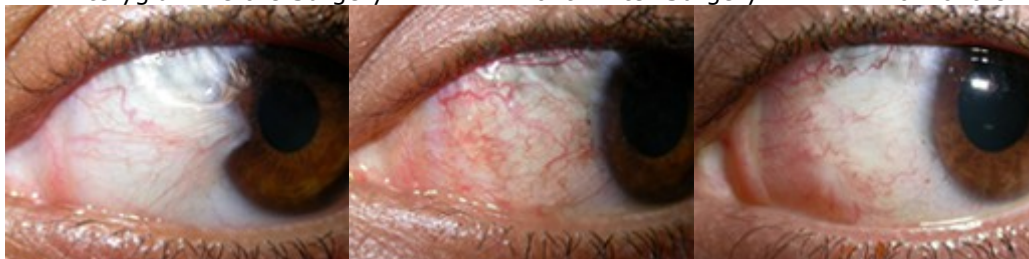
1 Month After Surgery
(eye is healed)



Pterygium Before Surgery

1 Month After Surgery

6 Months After Surgery



Pterygium Before Surgery

1 Week After Surgery

2 Weeks After Surgery

Causes of Pterygium

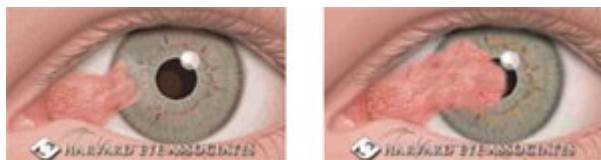
UV radiation (usually from sunlight) is the most common cause of pterygium. This explains why pterygium occurs with increasing frequency in climates approaching the equator. Other causes include continuous

exposure to dry, dusty environments. People who spend significant time in water sports (surfing or fishing) are particularly susceptible to pterygium because of the intense exposure to UV that occurs in these environments. When the eye is continuously assaulted by UV rays, the conjunctiva may thicken in a process similar to callus formation on the skin. The sensitive structures of the outer eye often cannot comfortably tolerate this degenerative process, and irritation, redness, foreign body sensation, and ocular fatigue can result.

Preventing Pterygium

The best method of preventing pterygium is to regularly wear UV 400 rated sunglasses when outdoors in sunny conditions. Sunglasses with a wrap-around design provide better protection than those with large gaps between the sunglass frame and the skin around the eyes. Wearing a hat with a wide brim provides valuable additional protection.

Treating Pterygium



In mild cases, pterygium redness and discomfort can be controlled with lubricant eye drops (artificial tears). When symptoms of redness, irritation, or blurred vision are resistant to conservative treatment, or when vision is affected by progressive growth of a pterygium, surgery is considered.

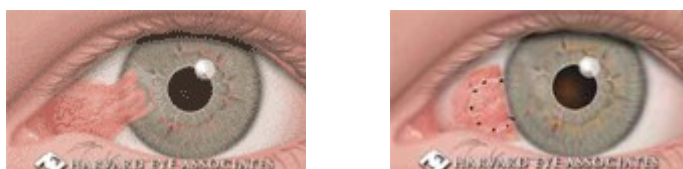
History of Pterygium Removal Surgery

In pterygium surgery, the abnormal tissue is removed from the cornea and sclera (white of the eye). Over the years, pterygium surgery has evolved significantly, and modern pterygium surgery has a significantly higher success rate than conventional surgery.

In traditional "bare sclera" pterygium removal, the underlying white of the eye (sclera) is left exposed. Healing occurs over two to four weeks with mild to moderate discomfort. Traditional "bare sclera" pterygium surgery has a high rate of re-growth. Occasionally, the pterygium grows back larger than the original.

Over the years, surgeons have used several different techniques to lessen the likelihood of pterygium recurrence, including radiation treatment and the use of "antimetabolite" chemicals that prevent growth of tissue. Each of these techniques has risks that potentially threaten the health of the eye after surgery, including persistent epithelial defects (ulceration in the surface of the eye), and corneal melting.

SURGERY - Pterygium Removal with a Conjunctival Autograft



Most cornea specialists today perform pterygium surgery with a conjunctival autograft because of a reduced risk of recurrence. In this technique, the pterygium is removed, and the cornea regains clarity. However, the gap in the mucous membrane (conjunctiva) tissue, where the pterygium was removed, is filled with a transplant of tissue that has been painlessly removed from underneath the upper eyelid. Although the procedure requires more surgical skill than traditional surgery, this "auto-graft" (self-transplant) helps prevent re-growth of the pterygium by filling the space where abnormal tissue would have re-grown.

The graft can be secured in place by either stitches, or by the use of modern tissue adhesive, composed of clotting proteins normally found in human blood. Tissue adhesive allows the surgeon to secure a conjunctival autograft in seconds rather than minutes. After about one week the tissue adhesive dissolves, leaving no residue, and the eye heals comfortably.

A thin [bandage] contact lens is placed on the eye and left in place for 1 to 2 weeks.

Type of anaesthetic

The operation can be done under general anaesthetic (patient asleep) or local anaesthetic (injections around the eye to freeze it). The decision as to which type of anaesthetic to use depends on discussion between you and the surgeon.

Aftercare

Usually the operation is done as a day case. You will go home with an eye shield on which must be left in place for 24 hours. Your eye will be quite sore for about a week after the operation. Redness of the eye will take 2 to 3 weeks to clear. You should not swim until after your follow up appointment and should take care not to poke or rub your eye. You may need at least a week off work, and off driving, so please ask the hospital for a certificate if you need one.

Treatment

You will be given drops and ointment to control soreness in the eye and prevent infection. You should also take painkilling tablets if required.

What problems can occur after surgery?

Pain - this should settle within a few days with painkillers, but please contact the hospital if it is getting worse despite regular medication.

Redness - the eye may look redder for 2 to 3 weeks after surgery but will gradually improve with time.

Infection – you will be given antibiotic drops to use after the operation. The risk of infection is less than 1 in 1000.

Side effects from drops - occasionally an allergy develops due to the drops or a pressure problem in the eye. The clinic doctor will check for these problems.

The eye may still not have a perfectly smooth surface after surgery - continued lubricating drops are then required, or in some instances smoothing of the surface with excimer laser treatment.

Scarring of the eye muscles - this can very rarely cause restricted movement of the eye and double vision.

Recurrence - the pterygium could come back again. This is much less common with modern surgery, but is occasionally troublesome. Re-operation may be possible.