

Pterygium Surgery

The back of the eye has a light-sensitive lining called the retina, similar to the film in a camera. Light is focused through the eye onto the retina, allowing us to see. The centre part of the retina is called the macula - it is here that light must be focused for us to see fine detail, to be able to read and to see in colour.

What is a Pterygium?

A pterygium is a benign growth on the front surface of the eye. They grow from the white of the eye to the cornea which is the clear window at the front of the eye. The cornea has a critical role in your ability to focus well.

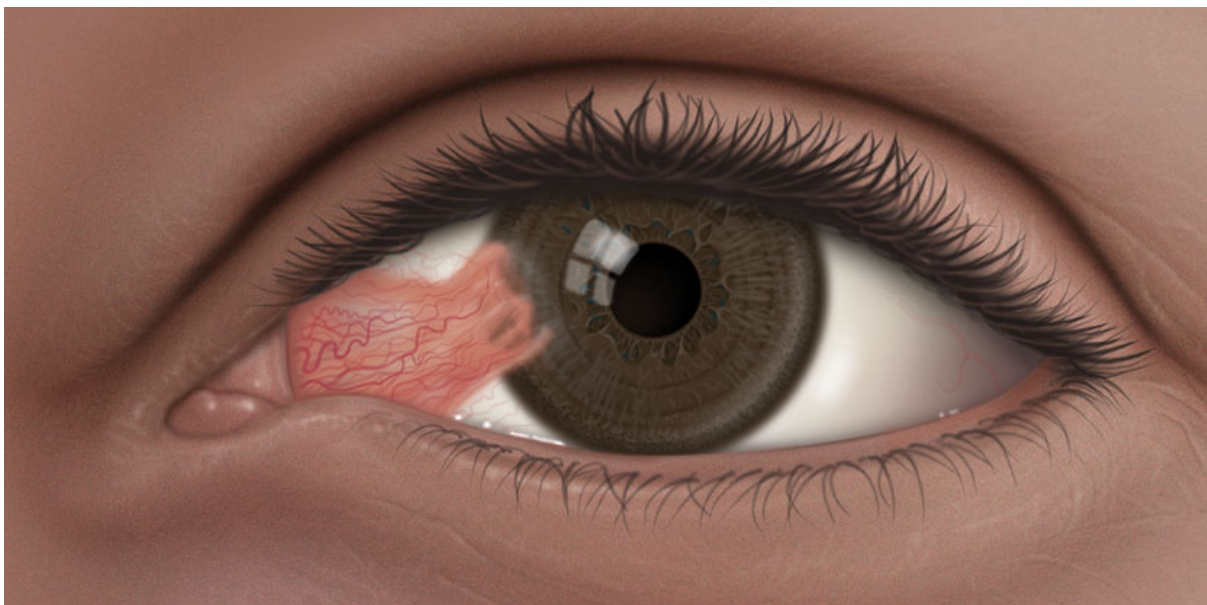


Figure 1: A left Pterygium extending on to the cornea (Image from American Academy of Ophthalmology)

Why do they occur?

Chronic Ultraviolet radiation from sunlight can affect the surface cells on the white of the eye and promote the formation of a pterygium. It is more common in countries with higher sun exposure such as Australia. A pterygium can occur anywhere on the white of the eye, but the inner white corner of the eye (closer to the nose) is a common site due to reflected sunlight from the nose. The colloquial term for a Pterygium is “surfer’s eye” due to surfers receiving additional UV radiation from reflected sunlight off the water.

What is the pattern of growth?

Having a pterygium doesn’t necessarily mean it needs to be removed. A pterygium typically has a growth phase and a quiescent or inactive phase. During the growth phase a pterygium may become inflamed, red and irritable. This is associated with the pterygium slowly increasing in size. If the inflammation continues, blood vessels on the pterygium will remain active promoting further growth on to the cornea. Sometimes a pterygium becomes inactive with minimal growth on to the cornea and these may be left alone if the patient isn’t bothered by the appearance.

Can they affect my eyesight?

When a pterygium is small and not extending to the cornea it will not affect the eyesight. As it enlarges and extends to the cornea it can start to affect the eyesight. For optimum sight the cornea of your eye needs to be shaped regularly throughout. When a pterygium grows on to the cornea it starts making it irregular which leads to astigmatism. It is the astigmatism that reduces the quality of vision and visual acuity.

What happens during the Pterygium surgery?

Pterygium surgery is performed under a general anaesthetic. The pterygium is carefully removed from the surface of the eye. Some surrounding tissue called tenons capsule is also removed. A very thin layer of tissue called conjunctiva is removed from the same eye usually from the white of the eye underneath the upper eyelid. This tissue is transplanted to the site where the pterygium has been removed from. The transplanted tissue is held down by sutures and sometimes a special biological glue. A bandage contact lens is then applied over the cornea for comfort and typically removed one week after the surgery.

What are the common side effects?

It is common to have a dry gritty eye after the operation for the first few days to weeks. This settles down with the drops provided after the surgery and as the healing process completes.

Your vision will be blurry for the first few weeks after surgery before things begin to settle down.

Pain is usually managed with painkillers such as Panadol. Please avoid NSAIDs such as Nurofen as this has a blood thinning effect. Occasionally stronger painkillers are required such as Endone.

What are the rarer side effects?

Problems with the conjunctival autograft – infection, graft swelling, failure for the graft to take.

Corneal dellen – caused by an area of the cornea not wetting properly and subsequently drying out.

Double Vision – The muscles that move the eyeball are situated in close proximity to the pterygium tissue and can rarely be inadvertently damaged during the operation.

Permanently reduced Vision – this is extremely rare, but could be induced by the white of the eye becoming inflamed as a result of surgery and having an effect on the vision.

Perforation of the eyeball – this is extremely rare, but certain individuals may have a very thin outer coating to the eye making them more prone to this complication.

When do I need to be seen again?

Patients are seen the next day after surgery to check on postoperative progress, one week after surgery to remove the protective bandage contact lens and at one month after surgery.

How good is Pterygium surgery long term?

The recurrence rate after pterygium surgery has reduced considerably as surgical techniques have improved. With the current technique of excising the pterygium along with a conjunctival autograft the recurrence rate is in the order of 10%.

Useful Resources

<https://www.aao.org/eye-health/diseases/pinguecula-ptyerygium-diagnosis-treatment>