
Our vision: Is for Australians to be free of glaucoma blindness

Xen Gel Stent

The XEN is a soft and flexible tube derived from porcine collagen. It is 6 mm long and nearly as thin as a strand of human hair.

How does it work?

The Xen Gel Stent works by creating a new drainage channel in the eye and drained fluid forms a small blister or bleb under the membranous covering (conjunctiva) of the eye, located on the top of the eye and covered by the upper eyelid. The bleb cannot usually be seen with the naked eye or felt. It is also MRI safe.

Who is it suitable for?

XEN implantation is typically performed by itself to lower eye pressure where medications have failed to reduce eye pressure to a safe level. However the XEN can be performed with cataract surgery for people with both advancing glaucoma and cataract, or where the drainage channel is closed.

Due to the XEN bypassing the natural drainage channels altogether it can be used in more types of glaucoma including where the natural drainage channel is damaged or closed.

What are the benefits?

The XEN is less invasive and offers a much faster recovery than traditional glaucoma surgery. Unlike the most commonly performed glaucoma operation, called trabeculectomy, there is no need for sutures and the return of clear vision is more rapid. The XEN has the potential to lower intraocular pressure more than iStent Inject and Hydrus and therefore can be performed

on patients with moderate to advanced glaucoma. As the XEN starts to work straight away to lower eye pressure, you will be able to stop taking your glaucoma drops in the operated eye immediately after the procedure.

Before the Procedure

Your doctor will provide you with specific instructions prior to the operation. You will usually be asked to continue with all your usual medications including your glaucoma eye drops even on the day of surgery. You will likely have a period of fasting immediately before the surgery but again your doctor will provide you with the specific details.

During the procedure

Your eye will be anaesthetised with a local anaesthetic injection. A small incision will be made in the front of the eye to allow implantation of the XEN. The procedure is faster than traditional glaucoma surgery and may take approximately 30 minutes to complete.

After the procedure

Following surgery, your surgeon will prescribe some antibiotics and anti-inflammatory eye drops but you should be able to cease your usual glaucoma eye drops as advised by your doctor. You will need to attend regular follow-up appointments to monitor your eyes.

What are the risks?

XEN implantation is associated with a small risk of infection, bleeding inside the eye, and very low intraocular pressure than may lead onto choroidal effusions (collapsing of the inner layers of the eye). The stent itself has the potential to move or perforate the surface of the eye and this can result in leakage of the aqueous fluid and higher risk of infection. In this case a return to the operating theatre is required for repair.

Are there any alternatives?

Alternative treatment options include traditional glaucoma operations such as trabeculectomy and glaucoma drainage tubes. Certain types of laser therapy may also be considered.