

iStent® trabecular micro-bypass stent surgery

What is glaucoma and how is it treated?

Glaucoma is a chronic disease defined by characteristic optic nerve damage. It is a multifactorial disease with over 300 different anatomic variations and affects over 40,000,000 people worldwide. Glaucoma is a slowly progressive and irreversible disease and, in most cases causes a painless loss of eyesight if left untreated.

The damage to the optic nerve is commonly caused by a fluid imbalance, or pressure, in the eye, as well as possible alterations in the blood flow to the optic nerve. It is well established that lowering the intraocular pressure can slow the process of optic nerve damage. The degree of pressure lowering necessary to prevent optic nerve damage is individualized for each person and each optic nerve. The greater the optic nerve damage, the lower the intraocular pressure is needed to achieve stability and prevent further optic nerve damage and further visual field loss.

Dr Then has diagnosed you with glaucoma and has informed you that if it is left untreated, that you may experience vision loss and eventual blindness. Treatment strategies for glaucoma are individualized to achieve the greatest lowering of the intraocular pressure with the least amount of risk to the individual's eyesight and well-being. Commonly, in Australia, topical medications (eye drops) are used as a first line of treatment. In many situations, multiple medications are tried to achieve the desired pressure level. Unfortunately, there can be difficulties with compliance, cost and side effects with many of these medications. There are many other alternative treatments available, but they have increasing potential risk.

Recently there have been further technologic advances or better control of the intraocular pressure. Minimally invasive glaucoma surgical procedures, so-called MIGS, involve alterations of the drainage area that are performed inside the eye. The iStent® trabecular micro-bypass stent is a surgical therapy for patients who have mild to moderate open angle glaucoma and have already been tried on topical medications. It is designed to improve the aqueous outflow to better lower the intraocular pressure and reduce the need for medications. The iStent® is the smallest medical device approved by the FDA to date. It is placed in your eye into the drainage area, the so-called Schlemm's Canal, through the trabecular meshwork. It is currently most commonly placed at the time of cataract surgery.

The iStent® is an elective procedure. As Dr Then has discussed, the iStent® is potentially beneficial in helping to reduce the number of glaucoma medications with this surgery. If you decide not to have the iStent®, other treatment options may be recommended and should be discussed with Dr Then to better control your glaucoma.

How will the iStent® trabecular micro-bypass stent procedure affect my condition?

The goal of the procedure is to improve the outflow of fluid from your eyes. The iStent® helps to control the pressure in the eye and reduce the risk of future vision loss to glaucoma. After implantation, many patients are able to better control their eye pressure with fewer medications.

What are the major risks of the iStent® trabecular micro-bypass surgery?

As mentioned earlier, the iStent® is noted to successfully lower the intraocular pressure in most cases when it is successfully implanted, but it may not necessarily stabilize your glaucoma. It is not a guarantee that you will not require other glaucoma therapy (ie ongoing eye drops) after the implantation. In some cases, the iStent may not function well at all, even though it is properly placed. In addition, sometimes there can be complications that do not appear in the early post-operative period but may develop days, months or years later. You may need further treatment or surgery to treat those complications. As with any intraocular surgery, there may be loss of vision, blindness, as well as bleeding, infection and injury to the eye.

Contraindications:

The iStent® is contraindicated in eyes with primary or secondary angle closure, including neovascular glaucoma as well as in patients with thyroid eye disease, Sturge-Webber syndrome or retrobulbar tumours and/or any other type of condition that may cause elevated episcleral venous pressure.

Patient acceptance of risk

It is impossible for Dr Then to inform of every possible complication that may occur. Results cannot be guaranteed and more treatment and/or surgery may be necessary.

If you have any additional queries, please do not hesitate to call Peel Vision, 9535 4321.