BUNBURY & BUSSELTON EYE SPECIALISTS

PATIENT INFO AND ADVICE

What is Glaucoma?

Glaucoma is a disease of the optic nerve — If you image the eye being a camera the optic nerve is the cable that connects the camera (eye) to the computer (brain). When damage occurs to the wires (neurons) inside the cable blind spots develop in your vision. These blind spots usually go undetected until the optic nerve (the cable) is significantly damaged.

If the entire nerve is damaged, the eye is unable to see.

Early detection and treatment by your eye Doctor or Optometrist are key to preventing optic nerve damage and blindness from glaucoma.

Glaucoma is a leading cause of blindness, especially for older people. But loss of sight from glaucoma can almost always be prevented with early treatment.

What causes glaucoma?

All parts of the body need to be feed. In the body this is done by the blood supply and in the eye there is a clear liquid called **aqueous humour** circulates inside the front portion of the eye.

The fluid (aqueous humour) is produced constantly while an equal amount flows out of the eye through a small plug. (This liquid is not part of the tears on the outer surface of the eye.)

To maintain a healthy body you need a blood pressure and to maintain a healthy eye you need an eye pressure. These two pressure are not directly related. If they become to high they can cause damage. In the eye this leads to damage of the optic nerve (the cable of the eye)

What are the different types of glaucoma?

Primary open-angle glaucoma. This is the most common form of glaucoma in Australia.

The risk of developing primary open-angle glaucoma increases with age. The drainage angle of the eye becomes less efficient over time, and pressure within the eye gradually increases, which can damage the optic nerve.Treatment is necessary to prevent further vision loss.

Typically, open-angle glaucoma has **no symptoms** in its early stages, and vision remains normal. As the optic nerve becomes more damaged, blank spots begin to appear in your field of vision. You typically won't notice these blank spots in your day-to-day activities until the optic nerve is significantly damaged and these spots become large. If all the optic nerve fibres die, blindness results.

Closed-angle glaucoma. This occurs if the drainage angle of the eye completely blocks all of a sudden. Since the fluid cannot exit the eye, pressure inside the eye builds rapidly and causes an acute closed angle attack.

Symptoms may include:

- Blurred vision;
- Severe eye pain:
- Headache:
- Rainbow-coloured halos around lights:
- Nausea and vomiting.

This is a true eye emergency. If you have any of these symptoms, call your ophthalmologist immediately. Unless this type of glaucoma is treated quickly, blindness can result.

Two-thirds of those with closed-angle glaucoma develop it slowly without any symptoms prior to an attack.

How is glaucoma detected?

Regular eye examinations by your optometrist are the best way to detect glaucoma. A glaucoma screening that checks only the pressure of the eye is not sufficient to deter- mine if you have glaucoma. The only sure way to detect glaucoma is to have a complete eye examination.

During your glaucoma evaluation, your optometrist will:

- Measure your intraocular pressure;
- Inspect the drainage angle of your eye;
- Evaluate whether or not there is any optic nerve damage;
- Test the peripheral vision of each eye (visual **field testing,** or **perimetry).**

Computerised imaging may be recommended. These tests may need to be repeated on a regular basis to monitor any changes in your condition.

How is glaucoma treated?

If the drainage system of the eye narrows the pressure inside the eye increases. This pressure can damage the small fibers in the optic nerve. (This is like reducing the number of copper wires in the cable going to a web camera)

As a rule, damage caused by glaucoma cannot be reversed. Lowering eye pressure is the only proven way to treat glaucoma. Eye drops, laser and surgery are used to lower eye pressure and help prevent further damage. In some cases, oral medications may also be prescribed.

With any type of glaucoma, periodic examinations are very important to prevent vision loss. Because glaucoma can progress without your knowledge, adjustments to your treatment may be necessary from time to time.

Medications (Turns the tap down)

Glaucoma is usually controlled with eye drops taken daily. These medications lower eye pressure, either by decreasing the amount of aqueous fluid produced within the eye or by improving the flow through the drainage angle.

Never change or stop taking your medications without consulting your ophthalmologist. If you are about to run out of your medication, ask your ophthalmologist if you should have your prescription refilled.

Glaucoma medications can preserve your vision, but they may also produce side effects. You should notify your ophthalmologist if you think you may be experiencing side effects.

Laser surgery (Clears the blocked plug)

Laser surgery treatments may be recommended for different types of glaucoma.

In open-angle glaucoma, the drain itself is treated. The laser is used to modify the drain (**trabuculoplasty**) to help control eye pressure.

In closed-angle glaucoma, the laser creates a hole in the iris (iridotomy) to improve the flow of aqueous fluid to the drain.

Surgery in the operating room (A new plug hole is made)

When surgery in the operating room is needed to treat glaucoma, your ophthalmologist uses fine microsurgical instruments to create a new drainage channel for the aqueous fluid to leave the eye. Surgery is recommended if your ophthalmologist feels it is necessary to prevent further damage to the optic nerve. As with laser surgery, surgery in the operating room is typically an outpatient procedure.

What is your part in treatment?

Treatment for glaucoma requires teamwork between you and your optometrist and ophthalmologist. Your ophthalmologist can prescribe treatment for glaucoma, but only you can make sure that you follow your doctor's instructions and use your eye drops.

Once you are taking medications for glaucoma, your ophthalmologist will want to see you more frequently. Typically, you can expect to visit your ophthalmologist every 6 to 12 months. This will vary depending on your treatment needs.

Loss of vision can be prevented.

Regular medical eye exams can help prevent unnecessary vision loss.

People at any age with symptoms of or risk factors for glaucoma, such as those with diabetes or a family history of glaucoma should see an ophthalmologist for an exam. Your ophthalmologist will let you know how often to return for follow-up exams.

Adults with no symptoms of or risk factors for eye disease should have a complete screening at age 40 — the time when early signs of disease and changes in vision may start to happen. Based on the results of the initial screening, your ophthalmologist will let you know how often to return for follow-up exams.

Adults 65 years or older should have an eye exam every one to two years, or as recommended by your ophthalmologist.

Bunbury: 19 George St, Bunbury WA 6230

Busselton: 194 Bussell Hwy, Busselton WA 6280

Dr Neil Sinclair
Dr Russell Townsend
Dr Alasdair Jackson

Tel: (08) 9791 4111 Fax: (08) 9791 4199
Email: admin@bandbeyespecialists.com.au
Website: www.bandbeyespecialists.com.au

Disclaimer: This leaflet is intended to provide general information only. It should not be used for diagnostic or treatment purposes. Please consult with your healthcare provider for guidance about any specific medical conditions.