What is Glaucoma?
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Glaucoma is a complex eye disease in which circulation of the fluid in the eye is disrupted. It is similar to the blockage of a kitchen sink, leading to overflow of water. This blockage of the fluid stops the process of re-absorption of the eye fluid leading to high pressure rise within the eye. This high pressure and other factors can ultimately affect the optic nerve. The optic nerve connects the eye and the brain like a telephone cable. Once the optic nerve is damaged, permanent vision loss can occur.

How do I know if I have glaucoma?

Complete eye exams are necessary to determine if you have glaucoma or are at risk. These examinations, performed by your ophthalmologist, consist of:
- Measurement of your eye pressure.
- Evaluation of optic nerve damage.
- A visual field test to measure your side vision.
Who is likely to develop glaucoma?

- Glaucoma is the 2nd leading cause of blindness in the world.\(^7\)
- Glaucoma is estimated to occur in 70 to 105 million people worldwide.\(^7\)
- 2% to 3% of the population 35 years of age and over have glaucoma.\(^2\)
- More than 13% of the people above 60 years old have glaucoma.\(^2\)

You have a high risk of developing glaucoma if:

- You are 65 years or older, especially if you have diabetes.
- You have a family history of glaucoma.
- Your ancestry is of African descent.
- You have ever had an eye injury.

These are the people who are at the highest risk for developing glaucoma; however, anyone can develop glaucoma, ranging from babies to adults.

What are the signs and symptoms of glaucoma?

In the vast majority of cases, especially in the early stages, there are few signs or symptoms. In the later stages of the disease, symptoms can occur that include:

- Gradual loss of side or peripheral vision.
- An inability to adjust the eye to darkened rooms.
- Difficulty focusing on close work.
- Rainbow-colored rings or halos around lights.

How is glaucoma treated?

Treatment varies from person to person. In 80% of glaucoma cases, medicine or laser surgery is used to control glaucoma. Medication and laser surgeries are not always effective, therefore, at times glaucoma valves are necessary. Glaucoma valves are useful alternatives in treating glaucomas that are resistant to medical therapy and conventional glaucoma surgery.\(^3\) After the valve has been implanted, the intake of medication may be reduced. (e.g. if you have been taking four different medications before the implant, after the implant you may just need one or none.)

Do medications have side effects?

Medications sometimes create side effects such as:

- Blurred vision, headaches and burning of the eyes.\(^4\)
- Low blood pressure, reduced pulse rate, and fatigue.\(^4\)
- Changes in sense of taste.\(^4\)
- Rapid heart rate or fluctuation in heart rhythm.\(^4\)

Glaucoma can lead to blindness, but early detection can prevent you from losing your eyesight.\(^2\)
What is a glaucoma Valve?

A glaucoma valve consists of a very small plate with a unique valve system that regulates your eye pressure. Attached to the plate is a tube that drains the fluid out of the eye, thus reducing the eye pressure. The implant is outside the eye, but it is covered by the skin of the eye so it can’t be seen or felt.

There are a variety of implants on the market, but only The Ahmed™ Glaucoma Valve has consistent behavior. The Ahmed™ Glaucoma implant provides effective long term control of intraocular pressure, with a high success rate.

How does a glaucoma valve work?

Implant surgery immediately reduces the pressure in the eye by giving the fluid a means to drain out more effectively. Because the glaucoma implant is a valve, it adjusts itself according to the fluid pressure in the eye. There is a precise control on the amount of fluid that is allowed to flow through it. This ensures that there is no excessive drainage from the eye, which can be a serious problem.

Postoperatively:

Implant surgery is done on an outpatient basis under local anesthesia. The total procedure takes about one hour. Postoperatively, you will need to take some medications until your eye is completely healed, including any pain medication for any discomfort you feel. Regular follow-up exams will track the pressure changes in your eye and ensure that the glaucoma implant is working successfully.

References:
2. Glaucoma Surgery by John Thomas, MD, Chief Editor, Mosby–Year Book, Inc. 1992
7. World Health Organization, 1997c
For further information, contact your doctor or:

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