

Glaucoma

What is glaucoma?

Glaucoma is an eye disease causing progressive damage to the optic nerve, which can lead to gradual vision loss and potential blindness if not detected and treated early.

What causes glaucoma?

Glaucoma is one of the leading causes of blindness in Canada. Doctors aren't yet sure what causes glaucoma, but we know why it occurs. The human eye is constantly producing fluid inside the walls of the eye. But if too much fluid is being produced within the eye, or if the fluid is not draining properly, it can put pressure on the optic nerve. The optic nerve transmits all of the information the eye sees, and sends that information to the brain. When the optic nerve is damaged, the amount and quality of information sent to the brain decreases, and a loss of vision occurs. Usually peripheral vision is affected first, followed by central vision during the later stages of the disease.

However, damage can also occur when eye pressure is normal; this is called normal pressure or normal tension glaucoma. It is not understood why some people develop optic nerve damage when the eye's pressure is normal.

An injury, infection or tumor in or around the eye can also cause the pressure to rise.

Who gets glaucoma?

Anyone can get glaucoma, but it most frequently occurs in individuals over the age of 40. For some, glaucoma is hereditary. There is a greater risk of developing glaucoma if you have diabetes, high blood pressure, cardiovascular disease or a history of eye injuries. Regular eye examinations are important for people of all ages to assess the presence of, or your risk for, developing glaucoma. Most types of glaucoma have no symptoms in the early stages and can only be detected through an eye exam.

Will I go blind from glaucoma?

If diagnosed at an early stage, eye drops and/or laser treatment can control or prevent further vision loss. If left untreated, some form of permanent vision loss is likely to occur.

How is glaucoma detected?

The most common type of glaucoma is primary open-angle glaucoma. It develops painlessly and gradually and there are no early warning signs.

In other cases, glaucoma may appear suddenly and present warning signs and symptoms such as nausea, eye pain, red eyes, blurred vision and haloes around lights. This is called acute angle-closure glaucoma.

A comprehensive eye examination is often the only way to detect glaucoma. Your optometrist or ophthalmologist will perform a simple and painless procedure called tonometry during your routine eye exam, which measures the internal pressure of your eye. Your optometrist will also look into your eye to observe the health of the optic nerve and measure your field of vision. He or she may use some additional imaging machines to examine the layers of your optic nerve.

How is glaucoma treated?

Treatment with daily eye drops and/or laser surgery is usually effective at maintaining your vision, but once vision is lost due to glaucoma, it cannot be restored. Regular eye examinations with your eye doctor are highly recommended to screen for and prevent glaucoma.