

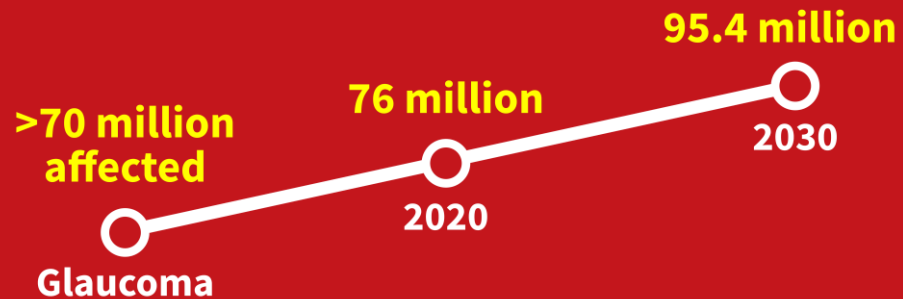


World Glaucoma Association
The Global Glaucoma Network

GLAUCOMA AWARENESS

THE WORLD GLAUCOMA ASSOCIATION

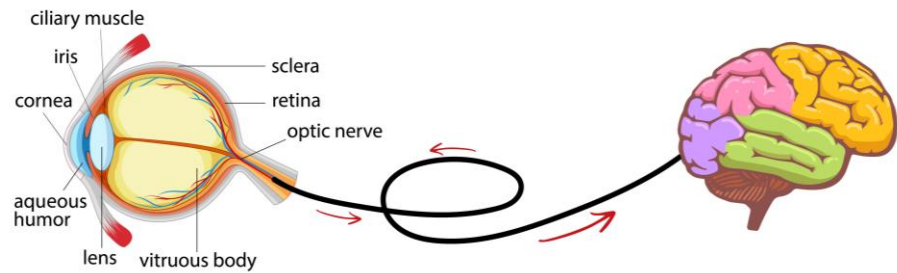
Glaucoma is the #1 cause of preventable irreversible blindness.



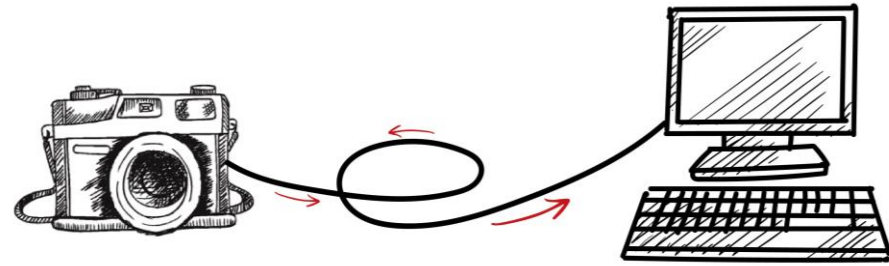
No. of people estimated to have glaucoma is expected to increase

7.7 million people have moderate or severe distance vision impairment or blindness from glaucoma

What is Glaucoma anyway?

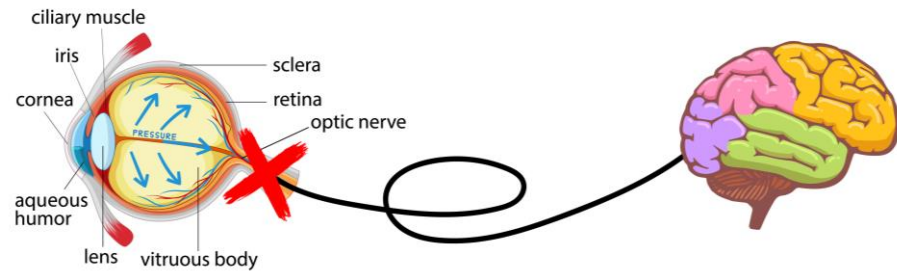


The optic nerve comprises of millions of nerve fibers that carry signals of what we see. It runs from the eye to the brain.

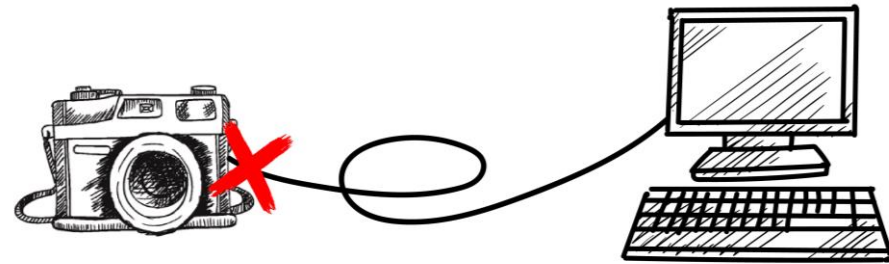


... similar to how the information from a camera is transmitted to a monitor screen!

What is **Glaucoma** anyway?

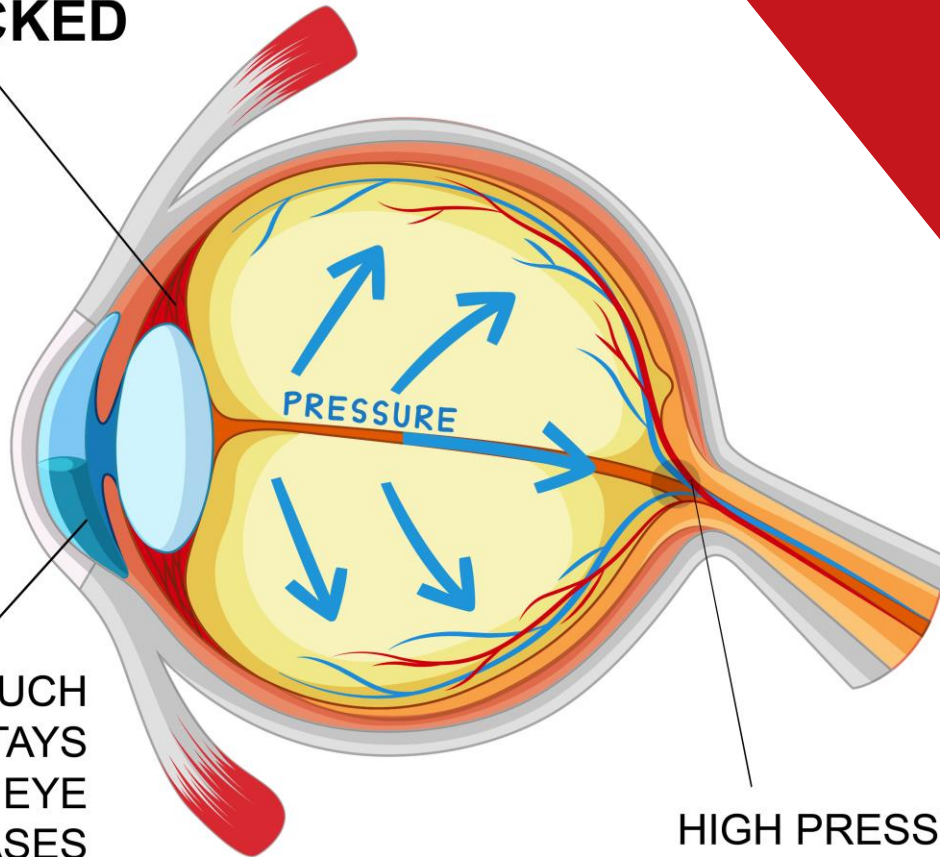


In glaucoma, the nerve fibers in the optic nerve are progressively damaged.



... Like a wire that becomes progressively frayed and thinner.

**DRAINAGE
CANAL
BLOCKED**



**TOO MUCH
FLUID STAYS
IN THE EYE
THIS INCREASES
PRESSURE**

**HIGH PRESSURE
DAMAGES THE
OPTIC NERVE**

**Glaucoma treatment
aims to reduce the risk of
further optic nerve
damage by reducing
the eye pressure**

How does Glaucoma affect individuals' lives?

Hu CX, et al. Am J Med Sci. 2014;
348(5): 403-409.

“Need
more light
to see...”

“Letters
appear faded
when
reading”

“Difficulty
seeing objects
at the sides”

“Some
areas are
darker or
missing”

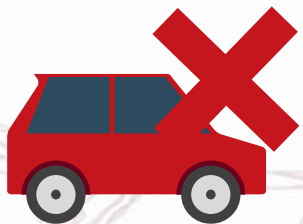
“Vision is
blurry”

How does glaucoma affect these individuals' lives?

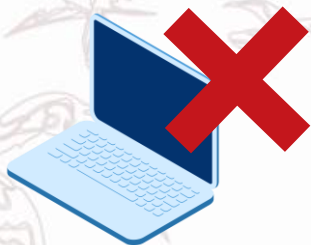
As the glaucoma progresses, it can impact:

- Driving, walking, venturing from home, reading
- Seeing at night, adjusting to different levels of illumination, judging distances
- Seeing peripheral objects, and moving objects coming from the side
- Motor vehicle accidents and injuries related to falls are potentially serious consequences

They may not be able to ...



Drive
safely



Work/ do
certain jobs



Perceive colors
normally

They may be at risk of...



Falls



Mental
Health
issues

Ramulu PY, et al. Ophthalmology. 2012; 119(6): 1159-1166.

Goldberg I, et al. J Glaucoma. 2009; 18(1): 6-12.

Haymes SA, et al. Invest Ophthalmol Vis Sci. 2007; 48(3): 1149-1155.

Falls, injuries and poorer quality of life

“A greater likelihood of bumping into objects while walking”

“Visual field loss from glaucoma is associated with a higher risk of falling”

Lower quality of life from the fear of falls and decreased independence



Mental health burden of glaucoma

13.0–30% prevalence of anxiety in glaucoma patients
10.9-24.7% prevalence of depression in glaucoma patients

Most qualitative studies have reported that
**glaucoma patients interpret their disease
as contributing to anxiety and/or depression**



If glaucoma affects one's vision so much, why are people not started on treatment earlier?

Many remain **undiagnosed**

How many?

> **1/3** of glaucoma cases remain **undiagnosed**.
Estimated **3%** of the global population over 40 years of age currently **has glaucoma**, the majority of whom are undiagnosed.

Who can get glaucoma?

Anyone!
Of any age (even children),
race or nationality

Why are people
not diagnosed with
glaucoma earlier?

Glaucoma has
no symptoms in
the early stages!

Most **people are not aware** that they
have problems with their vision and
do not notice any vision loss.

Early visual field
defects mean that
40% of the nerve
fibers are already
**irreversibly
damaged!**

Glaucoma is a chronic disease

It can be treated but **not cured or reversed,**
early diagnosis is key!

There is no cure for glaucoma,
but proper treatment can slow or prevent sight loss.

Glaucoma diagnosis as early as possible is key to prevent vision problems

GET TESTED!

*“Doctor,
I realized I cannot see.
What can I do to
regain my vision?”*

“Unfortunately, your vision cannot be improved. We will start you on treatment to preserve your remaining vision.”



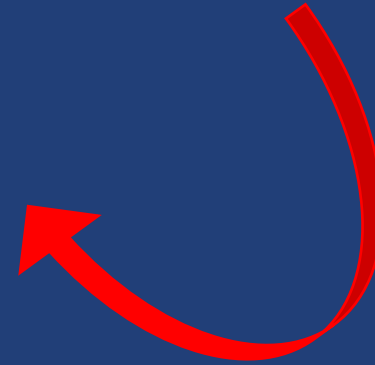
This is why glaucoma is known as the **‘silent thief of sight’**

Fortunately, **blindness is preventable**
if glaucoma is detected and treated earlier





Getting tested is
important!



Talk to your family members!

First-degree relatives with
glaucoma may have 4-8x
higher risk.

Visit your ophthalmologist!

Your ophthalmologist will
guide you to the best
treatment option in each
individual case!

Proper treatment can prevent or slow
vision loss due to glaucoma

**All forms of glaucoma
can be treated**

Glaucoma diagnosis
usually causes
stress and concern

**Treatment
options include
daily eyedrops,
laser, or eye
surgery.**

Glaucoma Treatment with Eyedrops: Regularity and Persistence

1. Similarly to Diabetes and High Blood Pressure, glaucoma needs continuous daily use of medication(s)

2. Glaucoma eyedrops may cause discomfort – talk to your Ophthalmologist – he can help you feel better!

3. MAINTAIN YOUR TREATMENT: even when there is no symptoms or visual loss

» early glaucoma

4. MAINTAIN YOUR TREATMENT: even when there is no improvement in vision

» advanced glaucoma

Corticoids may cause glaucoma!

- 1.** Corticoids are good and effective medications for many health problems
- 2.** However, inappropriate use of corticoids may cause glaucoma and permanent vision loss
- 3.** Take extra care with eyedrops with corticoids: the more you use, the higher the risks
- 4.** Only use corticoids when prescribed by your doctor, he will know how to use corticoids safely

What can be done to relieve the global burden imposed by glaucoma?

1. Optimize detection / screening protocols. GET TESTED!!

2. Implementation of cost-effective screening programs in all regions of the world, especially developing regions

» Prevent / reduce vision loss from glaucoma

3. Optimise glaucoma treatment options (*medications, laser, surgery*)

» Minimise / stop glaucoma progression

4. Develop new therapeutics (*eg. stem cell research*)

» Reverse the 'irreversible' vision loss from glaucoma

Glaucoma has an impact on the rest of society! **ROAD SAFETY!**

Drivers with mild-to-moderate visual field loss from glaucoma (compared with age-matched controls)

- Impaired driving performance
- Less safe
- Significantly more problems with observation, maintaining lane position and approach and planning

“...made significantly more errors at traffic light-controlled and give-way (yield) intersections.”

“Importantly, the consequences of errors in these traffic situations are likely to involve multiple road users (vehicles and pedestrians) and have significant safety consequences.”



Acknowledgements – Images

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