

2024 - Mar

# Glaucoma

## Current situation

There are approximately 60 million glaucoma patients worldwide. Among them, one-fourth are of Chinese descent. In Hong Kong, there are about 120,000 glaucoma patients, and one-seventh of them suffer from blindness in both eyes. In the early stages, glaucoma may not have noticeable symptoms. Many patients seek medical attention when their condition has already deteriorated.



## What is glaucoma?

Glaucoma are eye conditions associated with damage of the optic nerve and the nerve fibres from the retina.

In the early stages, glaucoma only leads to peripheral vision loss and may not have noticeable symptoms. It is also difficult to detect early-stage glaucoma through regular vision examinations.

If left untreated, glaucoma will cause progressive loss of outer field of vision, then developed tunnel vision, and resulted in permanent total blindness.

## Signs and Symptoms

Both open-angle or angle-closure glaucoma can be primary or secondary.

### Open-angle glaucoma

- The drainage angle formed by the cornea and iris remains open, but the drainage channels in the angle are partially blocked, causing a slow drainage of the aqueous humor from the eye, resulting in its accumulation and gradual increase in eye pressure

### Symptoms and signs

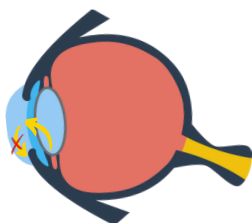
- Peripheral vision gradually diminishes, spreading slowly towards the center

### Angle-closure glaucoma

- This occurs when the iris bulges forward, narrowing or blocking the drainage angle formed by the cornea and iris. The aqueous humor cannot flow out of the eye adequately, leading to an increase in eye pressure
- It usually sudden onset (acute angle-closure glaucoma) and it can also develop gradually into chronic closed-angle glaucoma

### Symptoms and signs (Acute)

- Severe eye pain, tender eye area, nausea, vomiting, headache, sudden onset of visual disturbance (often in low light), blurred vision, halos (circles) around lights and reddening of the eye



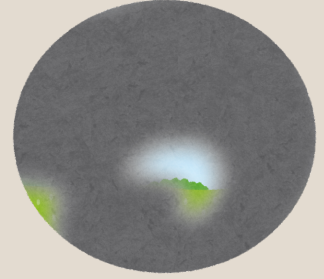
# Risk factors

- Older age over 40
- Severe short sightedness
- Ocular hypertension
- Family history of glaucoma
- Diabetes
- Hypertension



## Genetic aspects

- People of Asian origin are at increased risk of developing acute angle-closure glaucoma
- People of African or Afro-Caribbean origin are at increased risk of developing chronic open-angle glaucoma



# Treatment

Glaucoma cannot be cured, and the damage caused by glaucoma cannot be reversed.

The goal is to improve the drainage of intraocular fluid or reduce the production of aqueous humor in the eye, thereby lowering intraocular pressure.

- Glaucoma medications (eye drops, tablets, or injections)
- Laser therapy
- Ophthalmic surgery
- A combination of these methods

Ophthalmologists determine the appropriate treatment method based on the type of glaucoma, its severity, medical history, and overall health condition of the patient

# Prevention

## Regular check-ups

- Individuals aged 40 and above should undergo comprehensive eye examinations annually



## Lifestyle habits

- Engage in 150 minutes of aerobic exercise per week
- Glaucoma patients should avoid inverted yoga poses/weightlifting (temporary increase in eye pressure)



## Adequate Sleep

- Get 7-9 hours of sleep daily



## Diet

- Consume fresh foods
- Emphasize the intake of monounsaturated fats (found in olive oil, avocado oil, etc.) and polyunsaturated fats (found in salmon, mackerel, sardines, cod, etc.) as primary sources of fat absorption
- Reduce sugar intake
- Avoid processed foods
- Avoid consuming large amounts of water at once
- Avoid trans fats and saturated fats
- Limit alcohol consumption

