

Table S1 Glaucoma general diagnosis

Glaucoma sub-type	Description	Share of the population affected	Forecast	References
Glaucoma	The optic nerve has been damaged.	<ul style="list-style-type: none"> • 0.5% at the age of 40; • 2% of over 40-year-old; • 8% of 80-year-old 	Cannot be generalized; see specific diagnoses below	(225,412,424)
Primary	Intraocular pressure (IOP) might or might not be elevated. Optic nerve damage occurs without any known or detectable cause.	~60% of glaucomas	Cannot be generalized; see specific diagnoses below	(225,412,424)
Secondary	IOP is or has been elevated due to some known pathological cause. Optic nerve damage occurs as a result of clinically evident external or internal conditions; i.e., injury, eye inflammation, exfoliation or pigment dispersion syndromes (with exfoliation fibrils or pigment molecules hindering drainage in the trabecular meshwork), prolonged use of steroid medication, problems with the focusing lens or cornea.	~40% of glaucomas	Better outlook if the cause can be identified and treated; otherwise, treatment success depends on effective IOP control	(225,412,424)

Table S2 Primary glaucoma diagnosis

Glaucoma sub-type	Description	Share of the population affected	Population affected	Forecast
Open-angle [primary open-angle glaucoma (POAG), adult-onset]	<p>Primary open-angle glaucoma occurs without any detectable cause.</p> <p>Normal-tension glaucoma (NTG), also called low-tension or normal-pressure glaucoma is a sub-type of primary open-angle glaucoma. The optic nerve is damaged even though the intraocular pressure (IOP) is not very high (usually between 12-20 mm Hg). The cause of damage is usually unknown. At higher risk for NTG are people:</p> <ul style="list-style-type: none"> • with a family history of NTG; • of Japanese/Korean ancestry; • with a history of systemic heart disease. <p>Juvenile-onset open angle glaucoma (JOAG)</p>	~40% of total glaucomas	More common in people with African ancestry	Open-angle glaucomas are responsible for about half of glaucoma visual disabilities. For NTG, because IOP is 'normal' (i.e., defined as POAG with <21 mmHg in some studies (33,387), diagnosis is often confirmed later than for high-IOP glaucomas. This emphasizes the importance of optic nerve evaluation at all treatment stages.
Angle-closure [primary angle-closure glaucoma (PACG)]	<p>This type of glaucoma usually occurs due to reduced access of aqueous humor to the eye's drainage pathways. It is caused by inherited anatomic elements of the individual's eye (typically in long-sighted individuals) and further deteriorates with age-related thickening of the cataract that pushes the peripheral iris forward, further narrowing access of fluid to the drainage angle. Usually affects both eyes. If of sudden onset, might cause severe pain, headaches, nausea and vomiting, blurring of vision, sensations of rainbow rings around lights. If untreated, could destroy sight-in days. Almost all oral medications contraindicated in glaucoma are linked to this type of glaucoma. Most commonly chronic and asymptomatic. Forms of angle-closure glaucomas:</p> <ul style="list-style-type: none"> • Acute; • Chronic. 	~20% of total glaucomas	Affects women more than men. More common in Chinese, Indian, other Asian and Inuit populations.	Angle-closure glaucomas are responsible for another half of glaucoma visual disabilities; in particular, because their diagnosis is often missed, even more frequently than for the open-angle glaucomas.
Primary congenital glaucoma (PCG) (childhood; juvenile)	Occurs in babies when there is an incorrect or incomplete development of the eye's drainage canals during the prenatal period.	A very small percentage of diagnosed glaucomas	Usually inherited	Microsurgery can correct structural defects. Results are often better when uncomplicated by other abnormalities.

Table S3 Secondary glaucoma diagnosis

Glaucoma sub-type	Description	Share of the population affected	Population affected	Forecast	Angle
Exfoliative, also called pseudoexfoliative (XFG)	LOXL-1 gene abnormality has been associated with this particular condition. Abnormal material that looks like microscopic dandruff is released in the eye where it damages the drain and rubs on the iris, releasing its pigment granules into the watery fluid, further blocking drain channels and raising eye pressure, often rapidly and severely. This in turn might damage the optic nerve.	~25% of total glaucomas.	More common in older people and certain ethnic groups, including: <ul style="list-style-type: none"> • People from the Nordic and other Northern European countries; • Greeks and other Mediterranean populations; • Indians. 	Tends to be a more aggressive form of glaucoma, but the underlying exfoliation syndrome might be found with no evidence of glaucoma.	Open-angle; might morph to angle-closure [secondary angle-closure glaucoma (SACG)], which is often more difficult to treat
Pigmentary dispersion syndrome (PDG)	Pigment granules from the back of the iris are dislodged by rubbing, float with the aqueous fluid, blocking and damaging the drainage channel. The eye pressure rises. This in turn might damage the optic nerve.	Small share of total glaucomas.	Although this is a relatively uncommon condition, it is more common among younger people, mostly shortsighted men in their 20s to 30s	As with the underlying exfoliation syndrome, pigmentary dispersion can occur without glaucoma. Usually treated like primary open-angle glaucoma, with some differences in the type of laser procedure performed in the affected eye.	Open angle
Uveitic	Uveitic glaucoma diagnosis usually covers numerous inflammation disorders (e.g., sarcoidosis, tuberculosis, toxoplasmosis, and various viruses) that increase eye pressure. Forms of Uveitic glaucomas that affect only one eye: <ul style="list-style-type: none"> • Fuchs' Heterochromic Iridocyclitis; • Posner-Schlossman Syndrome (Glaucomatocyclitis); • Herpetic uveitis; • Infective; • Toxoplasmosis. Other forms that can affect one or both eyes: <ul style="list-style-type: none"> • Juvenile idiopathic arthritis; • Ankylosing spondylitis; • Sarcoidosis; • Steroid related. 	Small share of total glaucomas.	~20% of patients with ocular inflammatory disorders (uveitis)	With modern treatments focusing on the root cause of inflammation, as well as controlling eye pressure, many patients can maintain excellent vision.	Open angle; might morph to angle-closure (SACG), which is often more difficult to treat
Neovascular (NVG), also called new vessel, hemorrhagic, thrombotic, congestive, rubeotic, and diabetic hemorrhagic	NVG diagnosis usually covers numerous blinding diseases.	Small share of total glaucomas.	Most commonly associated with retinal vein blockage or diabetic eye disease patients	The better controlled a person's diabetes and the more efficient the treatment after a retinal vein obstruction, the less likely is NVG to develop. Treatment starts with the identification and correction of the cause. Newer medications and laser approaches have revolutionized treatment, but the outlook for visual recovery depends on the underlying cause, how much visual damage it has caused, and how amenable it is to the treatment.	Open angle; might morph to angle closure (SACG), which is often more difficult to treat
Elevated episcleral venous pressure (EVP)	<ul style="list-style-type: none"> • Venous obstruction; • Cavernous thrombosis; • Vena Cava syndrome; • A-V abnormalities; • C-C fistula; • Sturge-Weber. 	Small share of total glaucomas.	Rare		Open angle
Irido corneal endothelial syndrome (ICE)	ICE is a rare form of glaucoma, usually found in only one eye. Symptoms include hazy vision upon awakening and the appearance of colored rings around lights.	Small share of total glaucomas.	Rare. Cause unknown.	ICE is difficult to treat; it causes visual damage through corneal decompensation, as well as glaucoma.	Open angle; might morph to angle closure (SACG), which is often more difficult to treat
Traumatic	Mostly caused by a blunt injury to the eye and occasionally injuries that penetrate the eye; occurs either immediately after an injury or years later (called angle-recession glaucoma). Blunt Trauma (Angle Recession) causes include a blow to the eye from sportsrelated injuries (in baseball, boxing, squash). Angle recession highlights the damage done to the drainage canals in the eye with pressure increases sometimes many years after the injury. <ul style="list-style-type: none"> • Blunt trauma (angle recession); • Hyphema; • Ghost cell; • Schwartz. 	Small share of total glaucomas.	The greater the extent of injury (seen as angle recession), the higher the risk. Glaucoma might occur up to 30 years later. Other conditions, such as severe nearsightedness, previous injury, infection, or prior surgery might also contribute.	Treated similarly to a more aggressive form of primary open-angle glaucoma. If you have had an eye injury, you should have regular checks by an ophthalmologist for the rest of your life, to ensure that any subsequent glaucoma is detected early and efficient treatment offered to safeguard your vision.	Open angle
Lens-related	<ul style="list-style-type: none"> • Lens particle; • Phakolytic; • Phakoanaphylactic. 	Small share of total glaucomas.	Rare		Open angle
Other	Various rare forms of glaucomas not covered above: <ul style="list-style-type: none"> • Drug-induced; • Iatrogenic; • Tumors. 	Small share of total glaucomas.	Rare		Open angle; might morph to angle closure (SACG)