

---

[your results](#) [background](#) [risk and prevention](#) [scientific details](#) [research](#) [discussion](#)>> 

## Exfoliation glaucoma

### Risk factors

---

Age, ethnicity and family history are the most important risk factors in the development of glaucoma.

- **Age:** Glaucoma most commonly affects people over 60 years of age but can begin as early as 30 or 40 years of age.
- **Race/Ethnicity:** Glaucoma is five times more likely to occur among African Americans than Caucasians and about four times more likely to cause blindness in African Americans compared with Caucasians. Additionally, glaucoma is about 15 times more likely to cause blindness in African Americans between the ages of 45-64 than in Caucasians of the same age group.
- **Hypertension:** A number of studies also suggest that there is a correlation between glaucoma and high blood pressure.
- **Family history/Genetics:** Men who have one relative with glaucoma are twice as likely to develop the disease, while those with two or more relatives are nearly four times more likely to be diagnosed. This suggests that genetic risk variants play a significant role in the risk of developing the disease.

### Lifetime risk estimate

---

deCODEme estimates a lifetime risk of 4% of developing Exfoliation Glaucoma (XFG), for individuals up to the age of 80 and of European ancestry on the basis of the listed references. This estimate is calculated, using the prevalence of Exfoliation Syndrome (XFS), which is around 20% for individuals reaching their 70's (References 1 and 2) and adjusted by the XFS to XFG conversion rate of around 4% per year. We also take into account the age distribution of the disease as described in Reference 1 (Table 2 in Reference 1). The conversion rate of 4% is consistent with the reported conversion rate of 60% over a period of 15 years and 14-22% over 6 years (Reference 3). To put these numbers into context, an individual who has developed XFS before the age of 65 has an approximately 50% chance of converting from XFS to XFG by the age of 80; however, the rate of conversion to XFG is likely to decrease for individuals who develop XFS at an older age. deCODEme estimates that on average 20% of the individuals diagnosed with XFS up to the age of 80 will convert to XFG. As glaucoma is mainly a disease of the elderly, the lifetime risk for developing XFG would increase substantially if individuals up to the age of 85 or higher were to be included in the estimate; this is, of course, relevant as life expectancy has been increasing. Studies suggest a lower prevalence rate of XFG among individuals of European ancestry in countries outside Northern Europe, however, under-diagnosis may influence this difference.

1. [Amarsson, A.M. et al.](#) Epidemiology of exfoliation syndrome in the Reykjavik Eye Study. Acta Ophthalmol, 2009 Dec;87 Thesis 3:1-17.
2. [Amarsson, A.M. et al.](#) Pseudoexfoliation in the reykjavik eye study: five-year incidence and changes in related ophthalmologic variables. Am J Ophthalmol, 2009 Aug;148(2):291-7. Epub 2009 May 9.
3. [Jeng, S.M. et al.](#) The risk of glaucoma in pseudoexfoliation syndrome. J Glaucoma, 2007 Jan;16(1):117-21.

### Prevention and treatment

---

Most people who become blind from glaucoma are already blind on at least one eye by the time of diagnosis, which emphasizes the need for increased awareness and early diagnosis. Studies have shown that the early detection and treatment of glaucoma, before it causes major vision loss, is the best way to control the disease.

Individuals who may be at high risk for glaucoma include African Americans over age 40; everyone over age 60, especially Mexican Americans; and people with a family history of the disease. These individuals should have a comprehensive eye exam at least once every two years according to recommendations by the [National Eye Institute \(NEI\)](#). Lowering eye pressure in glaucoma's early stages slows progression of the disease and helps preserve vision.

A comprehensive eye exam can also reveal other associated eye abnormalities that can increase the risk of glaucoma, such as high eye pressure, thinness of the cornea, and abnormal optic nerve anatomy. In some people with certain combinations of these high-risk factors, eye drops reduce the risk of developing glaucoma by about half. Additional therapies such as laser treatments may be beneficial, especially for the XFG form of glaucoma.

### More information

---

You can find out more information about glaucoma by talking with your doctor and visiting these Web sites:

- [The American Glaucoma Society](#)
- [The Glaucoma Foundation](#)
- [National Eye Institute](#)
- [Medline Plus Article on Glaucoma](#)
- [Wikipedia Article on Glaucoma](#)

This content was last reviewed on October 22, 2010.

### Consult with our experts

---

Need something clarified? Please feel free to [contact our experts](#).

Based on the nature of your questions, we may refer you to a genetic counsellor.



© 2001-2013 deCODE genetics, all rights reserved, deCODE and deCODEme are trademarks of deCODE genetics. (2013-10-22). The deCODE website is for informational purposes only and should NOT be used for medical decision making without consulting your physician. Standards for trustworthy health information: verify here.