

Glaucoma and Ginkgo Biloba

Why the momentum for alternative treatment in glaucoma?

Treatment of glaucoma largely focuses on lowering the intraocular pressure. However, there is little doubt that other risk factors besides intraocular pressure (IOP) are involved so that even an ideal IOP does not stop deterioration in all patients. While lowering intraocular pressure remains the only treatment which has the highest level of evidence associated with it, numerous studies have tried to identify other adjuvant treatments for glaucoma.

What is ginkgo biloba?

Ginkgo biloba has been used in Chinese traditional medicine for centuries. Extracts of Ginkgo biloba leaves have been suggested for many years to treat various conditions, including dementia, tinnitus, and circulatory problems.

What is the possible mechanism of action?

Various *in vivo* (in animal studies) and *in vitro* (in the laboratory) models have shown that ginkgo biloba extract (GBE) has neuroprotective effects. Different studies have shown that ginkgo biloba extracts may have the following potential benefits:

1. Improved blood flow to the optic nerve
2. Neuroprotective effects
3. Antioxidant effect
4. Anti-inflammatory action

Due to their perceived antioxidant, anti-inflammatory and neuroprotective benefits, various flavonoids (and in particular GBE) have been proposed for the treatment of non-pressure-dependent risk factors associated with glaucoma

Are there any risks associated with ginkgo use?

It is important to consult both your GP as well as your eye specialist before using any supplementary medications.

One of the concerns regarding ginkgo biloba has been the potential risk of increasing bleeding time and decreasing clotting. However, numerous studies in healthy people have not shown any changes in bleeding time or coagulation parameters.¹

References

1. Kellermann AJ, Kloft C. Is there a risk of bleeding associated with standardized Ginkgo biloba extract therapy? A systematic review and meta-analysis. *Pharmacotherapy* 2011; 31:490-502.