

Supplement Sampler

Ginkgo (*Ginkgo biloba*)

Best Indications

Intermittent claudication

Mechanism of Action

Extracts derived from the Ginkgo leaf are used most commonly and contain several active ingredients including flavonoids, terpenoids and organic acids. Flavonoids protect tissues from oxidative stress and function in free radical scavenging. Terpenoids competitively inhibit platelet activating factor to decrease platelet aggregation and blood clotting as well as smooth muscle contraction and free radical production. There is evidence these compounds work synergistically to produce more potent effects than do the individual constituents in isolation.



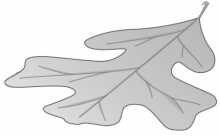
Best Studies

Peripheral Arterial Occlusive Disease: 111 patients with angiographically proven peripheral obstructive arterial disease in Fontaine stage IIb and intermittent claudication were randomized to receive standardized Ginkgo extract EGb 761 or placebo. Mean pain-free walking distances showed a statistically significant improvement for the Ginkgo group compared to placebo at 8, 16 and 24 weeks with a 41% vs. 20% improvement at the end of the treatment period for the Ginkgo and placebo groups respectively. The Ginkgo was tolerated very well with no adverse events vs. one case of heart burn and gastric pain in the placebo group. *Peters, et al. Vasa 1998;27(2):106-10.*

In a separate double blind multicenter trial, 74 patients with peripheral arterial occlusive disease (PAOD) Fontaine stage II were randomized to receive the standard dosage of Ginkgo extract, 120 mg/d vs. 240 mg/d. While both groups showed improvement after 24 weeks of treatment, those taking the higher dosage showed a mean increase of 107 meters in pain-free walking distance vs. 60.6 m in the 120 mg/d group. ($p=0.0253$) Both treatment regimens were well tolerated. *Schweizer et al., Arzneimittelforschung 1999; 49(11):900-4.*

Dose

For intermittent claudication, 120-240 mg/day have been used, though the higher dose appears more effective.



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Side Effects

Side effects with standardized leaf extracts are rare when used appropriately in typical doses. It has been noted to cause mild GI upset, headache, dizziness, palpitations, constipation, spontaneous bleeding and allergic skin reactions. Fresh seeds are potentially deadly. Leaf extract may be unsafe in pregnancy due to possible labor-inducing and hormonal effects. Lactating mothers should avoid Ginkgo as evidence describing risks is insufficient.

Though generally well tolerated, there is some evidence that Ginkgo might have an inhibitory effect on warfarin metabolism and increase the risk of bleeding. It may also increase risk of bleeding with anti-platelet drugs.

Cost

Ginkgo costs around \$20 to \$28 for 120 of the 60 mg capsules. Check www.iherb.com, www.vitacost.com, www.swansonvitamins.com, or www.drugstore.com for affordable supplements.

Comments

The Ginkgo is the world's oldest living tree species. Regarded a living fossil, its ancestors date back 270 million years. It was the first plant to grow back after the bombing of Hiroshima and is the most prescribed herb in Europe. While the best evidence for Ginkgo is for the indications described above, there is research indicating it is possibly effective in slowing cognitive decline, enhancing cognitive function, improving color vision in patients with early diabetic retinopathy, improving pre-existing damage to the visual field in patients with normal-tension glaucoma, relief of breast tenderness and neuropsychological symptoms associated with PMS, relief of Raynaud's syndrome and improvement of vertigo.

Clinical Bottom Line

Consider Ginkgo along with positive lifestyle changes in those with peripheral vascular disease. The evidence is promising and there are currently limited non-surgical therapeutic options for this condition.

Brought to you by Mike Weber, MD, and your colleagues in the UW Department of Family Medicine Integrative Medicine Program.

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