Ginkgo Biloba



Ginkgo biloba, also known as maidenhair, is an ancient plant extract that has been used in China to heal various health ailments for thousands of years. In fact, it's reported by Examine.com to be "the most commonly ingested herb for brain health."

What is ginkgo biloba good for? It's been widely studied for its effective anti-inflammatory, antioxidant, platelet-forming and circulation-boosting effects.

According to current research, ginkgo biloba <u>benefits may include</u> improved cognitive function, positive mood, increased energy, improved memory and reduced symptoms related to multiple chronic disease.

What Is Gingko Biloba?

Ginkgo biloba (which goes by the scientific name *Salisburia adiantifolia*) is a natural extract derived from the leaf of the Chinese ginkgo tree, also called the maidenhair tree.

EGb761 and *GBE* are the scientific terms for standardized extract of the green ginkgo biloba plant, which is often noted for its cerebral-enhancing effects. In fact, it's <u>believed</u> to be so effective that it's even a prescription herb in Germany and several other European countries. Historically, it's been used as a natural remedy for <u>ADHD</u>, as a dementia treatment and more.

Ginkgo has been studied for decades in France, Germany and China. And although Chinese herbal medicine utilizes both dried ginkgo leaf and seeds, today the focus in clinical studies is on the effectiveness of standardized ginkgo biloba liquid extract, made from the plant's dried green leaves.

What makes ginkgo so powerful?

According to Traditional Chinese Medicine and current clinical studies, ginkgo biloba is safe, effective and benefits the body in numerous ways because it exerts protective effects against mitochondrial damage and oxidative stress. It can help to decrease inflammation and free radical damage, two underlying causes of most common health conditions.

This extract contains two main constituents, flavonoids and terpenoids, that have strong antioxidant <u>properties</u>. It's believed these may help slow down the progression of age-related diseases by preventing damage to tissues, cells and DNA.

Health Benefits

Ginkgo biloba benefits and uses may include:

- Supporting cognitive/brain activity, such as by improving memory and focus.
- Increasing vascular dilation, blood flow and the health of blood vessels.
- Supporting immune function due to its detoxifying mechanisms and immune function.
- Promoting recovery from strokes.
- Helping to treat medical conditions such as circulatory problems and those related to memory impairment.
- Reducing common mood disorders such as anxiety and depression, plus those caused by PMS.
- Treating headaches and migraines.
- · Improving libido.
- Improving sleep quality.
- Decreasing symptoms caused by ear disorders such as hearing loss, dizziness, and tinnitus.

Here's more about how this powerful herb works:

1. Might Protect and Enhance Cognitive Health

Research <u>shows</u> that ginkgo can help protect against cognitive impairment and <u>support brain function</u>, particularly among people with Alzheimer's, <u>dementia</u> or vascular problems caused by cerebral infarction (loss of blood flow to vessels in the brain).

<u>According</u> to a report in the *International Journal of Phytotherapy and Phytopharmacology*, this herb is "currently the most investigated and adopted herbal remedy for cognitive disorders and Alzheimer's disease (AD)."

It's even useful for helping to treat <u>cerebral insufficiency</u> — a condition <u>characterized</u> by chronically low concentration, confusion, decreased physical performance, fatigue, headaches and mood changes.

Many of the brain-boosting ginkgo biloba benefits that researchers have discovered rest on the fact that it's an effective anti-inflammatory that increases antioxidant activity, lowers oxidative stress and improves circulation.

Another theory is that because it can help increase uptake of glucose (broken down sugar) by brain cells, it has the potential to improve the transmission of nerve signals responsible for memory, mood, task completion, heartbeat regulation and eye health.

A 2017 clinical trial conducted within seven hospitals <u>demonstrated</u> that ginkgo biloba extract in combination with aspirin treatment diminished cognitive and neurological deficits after an acute ischemic stroke. The tests indicated that those using the extract scored significantly higher on cognitive assessment scores, indicating an improvement in cognition compared to controls.

In another study, researchers tested the effects of ginkgo on healthy adults' mental performance over a four-week period. They <u>found</u> significant differences in self-estimated mental health and quality of life compared to a placebo group. The group taking ginkgo experienced better motor performance and

emotional health, and reported no known drug-induced side effects or intolerance. Overall, no serious adverse events were observed during the study.

To be hair however, research has shown mixed and contradictory results overall. Some evidence suggests that this protection against cognitive decline doesn't always translate to otherwise healthy older adults. And not every study has found that it can improve memory; one meta-analysis for example did not find evidence that it boosted cognitive functions in healthy individuals.

2. May Improve Symptoms of Dementia and Alzheimer's

While not a total cure, overall scientific literature <u>suggests</u> that it's possible ginkgo biloba benefits adults with dementia or Alzheimer's disease (AD). A 2016 overview of systematic reviews published in *Frontiers in Aging Neuroscience* <u>concluded</u>, "there is clear evidence to support the efficacy of GBEs for mild cognitive impairment and dementia, whereas the question on efficacy to prevent cognitive decline is still open."

Most studies have investigated the effects of ginkgo on <u>lowering Alzheimer's symptoms</u> in patients already undergoing standard AD treatment with cholinesterase inhibitor drugs (ChEls). But when groups of AD patients taking additional ginkgo supplementation have been compared to those not taking ginkgo-combination therapy over at least a one-year period, significant differences in both cognition and quality of life have been reported.

Some researchers still believe that there is insufficient evidence to support the use of ginkgo. The "Ginkgo Evaluation of Memory (GEM) Study" showed that when taken at doses of 120 mg twice a day it was not effective in reducing both all-cause dementia incidence and Alzheimer dementia incidence in elderly patients with normal cognition or with mild cognitive impairment.

3. Can Help Fight Anxiety

One high-quality clinical trial <u>found</u> that a higher dose (up to 480 milligrams) of ginkgo biloba reduced generalized <u>anxiety symptoms</u> by the end of four weeks. Researchers found that the highest dose given was marginally more effective and that the decrease in symptoms didn't reach statistical significance until after the entire four week period had passed.

However, this herb doesn't seem to have an impact on <u>depression</u> or other mood disorders. It *does* increase the effectiveness of treatment for one major mental illness, but we'll get to that.

4. Can Fight Symptoms of PMS

Some early research has shown positive effects of taking ginkgo on <u>reducing PMS symptoms</u> — like mood swings, headaches, anxiety, fatigue and muscle pain.

One 2008 study <u>published</u> in the *Journal of Alternative and Complementary Medicine* compared the effects on ginkgo biloba in two groups of women that had similar severity of PMS symptoms.

After a six-month intervention with ginkgo, there was a significant decrease in the overall severity of physical and psychological symptoms in both the group taking 40 milligrams daily of ginkgo extract and the placebo group; however, a higher percentage of the ginkgo group (23.7 percent) had improvements compared to the placebo (8.7 percent).

An older clinical trial from 1993 <u>found</u> similar results. While the symptoms were the same in the placebo versus test group, by the end, all participants taking ginkgo biloba had a significant reduction in their PMS symptoms that was not seen in the placebo group.

5. May Help Maintain Eye Health

While more evidence is still needed, ginkgo appears to be beneficial for eye health. A Cochrane review examined the results of this herb for lowering the risk for age-related <u>macular degeneration</u> thanks to its platelet-activating factors and prevention of membrane damage caused by free radicals.

Not a lot of research yet exists, but the results in so far <u>indicate</u> that ginkgo biloba may improve vision. It's unclear yet if it truly is preventative for age-related macular degeneration.

Another unexpected benefit might be ginkgo's ability reduce <u>pink eye symptoms</u>. Also known as conjunctivitis, pink eye is an infection that can be caused by both viruses or bacteria and often clears up on its own within 10 days. Compared to placebo eye drops, the drops with ginkgo biloba extract <u>reduced the symptoms</u> of pink eye caused by allergies.

6. May Help Prevent or Treat ADHD

One study suggests ginkgo biloba may be somewhat effective at reducing <u>ADHD symptoms</u> in children. Each child in a group of 50 diagnosed with ADHD was given up to 120 milligrams of ginkgo per day, which resulted in lower rated symptoms of ADHD.

However, the supplement did not outperform methylphenidate (Ritalin), suggesting the need for future trials at higher doses.

7. Could Improve Libido

Results have been somewhat inconsistent so far, but it seems true that ginkgo biloba has some impact on <u>libido</u>, as it helps blood flow more efficiently and relaxes smooth muscle tissue.

Interestingly, the most significant result so far has been a potential for treating sexual dysfunction induced by psychotropic drugs used to treat depression — specifically SSRIs. The first open clinical trial, ginkgo biloba improved sexual function (especially in women) for those unable to perform due to SSRI side effects.

It's unfortunate, though, that follow-up studies <u>haven't turned out</u> the same result. Scientists are unsure whether or not they will be able to duplicate the first study's findings, but research still seems hopeful.

8. Helps Treat Migraines

In younger individuals who suffer migraine headaches, with or without auras, ginkgo biloba may help <u>get rid of migraines</u>, including reducing frequency and severity. The initial study observing these effects <u>found</u> it took about three months to see significant changes. In the subsequent months, the improvements continued to increase.

Another study, this one published in 2009, saw the same changes in women with aura alongside migraines. Researchers gave a combination of ginkgo biloba, vitamin B2 and coenzyme Q10 to patients for a total of four months (after two months during which people withdrew from their current medications).

Migraines with aura <u>went away completely</u> in over 42 percent of study participants by the end of month four, while the remaining participants saw partial improvements in their symptoms.

9. Can Reduce Symptoms of Altitude Sickness

Although it's unclear why, ginkgo biloba has been <u>shown</u> time and time again to <u>reduce symptoms</u> of acute mountain sickness when taken before a climb. These results are most consistent when subjects take 240 milligrams for up to five days before mountain climbing.

10. Can Improve Sleep Quality

In multiple cases, it seems ginkgo might help to improve quality of sleep without impacting REM function. This benefit is <u>attributed</u> to its antioxidant activity. For people who are healthy but <u>can't sleep</u>, 240 milligrams ginkgo biloba per day may increase subjective sleep quality.

Ginkgo biloba most significantly improves sleep for those who lose sleep while <u>taking trimipramine</u>, a popular antidepressant.

11. May Fight Fibromyalgia

Some studies have found that supplementing with CoQ10 and ginkgo together <u>improved quality of life</u> for people diagnosed with fibromyalgia, a disorder of the nervous system that can cause fatigue; headaches; difficulty with sleep, anxiety and depression.

12. May Support Heart Health

Certain studies involving people at high risk for heart disease have found that patients on ginkgo biloba experience a reduction in the buildup of atherosclerotic plaque (which leads to arteriosclerosis) as well as oxidation of LDL cholesterol levels.

The major benefit of taking this herb for heart health seems to be its superior antioxidant ability — taking this supplement <u>increased activity</u> of some of the most powerful antioxidants in the body, superoxide dismutase and <u>glutathione</u>.

Another benefit is that it seems to <u>increase levels</u> of circulating nitric oxide, a compound responsible for dilating blood vessels and promoting healthy circulation.

13. Increases Effectiveness of Schizophrenia Treatment

Although the effect is not considered major, ginkgo seems to effectively reduce positive and negative symptoms of schizophrenia when <u>used as an adjunctive</u> (add-on) with antipsychotic drugs.

It may also help to <u>improve responses</u> to these medications for patients considered "treatment-resistant." Dosages range from 240-360 milligrams per day in the various studies testing this effect.

14. Promotes Healthy Skin

In several different instances, ginkgo biloba helps to improve the quality of skin when taken regularly.

For one, supplementing with ginkgo biloba causes a small but significant improvement in symptoms of <u>vitiligo</u>, a pigmentation disorder that causes white, blotchy skin patches. At 120 milligrams per day, participants in two studies <u>experienced</u> a noticeable repigmentation of skin and a <u>reduction</u> in the size and spread of their lesions.

In facial cream form, flavonoids from ginkgo biloba caused a very noticeable difference in skin smoothness/roughness, wrinkles and moisture. The <u>increased moisture</u> was most notable, increasing by

almost 28 percent overall. Even though this was only one study and had a small sample size, it does suggest that using an facial cream containing ginkgo biloba might help to naturally slow aging.

Risks and Side Effects

Is Ginkgo biloba dangerous? It's possible for side effects of ginkgo to occur, although overall it seems very safe. Rarely, side effects have been reported that include: nausea, diarrhea, dizziness, headaches, and allergic reactions (do not take this herb if you are allergic to alkylphenols).

Ginkgo biloba should not be taken by children, as it hasn't been proven to be safe.

Is it safe to take ginkgo biloba everyday? Most studies have focused on the effects of gingko when taken for several months, but not long-term. If you plan to use it for more than 6 months, speak with your doctor first.

Drug Interactions

It's possible that this extract can interact with certain drugs, including anticoagulants and antiplatelet agents. It may potentially interfere with recovery from surgery or serious injuries too.

Do not use this supplement if you take medications including blood thinners (Warfarin, aspirin), antidepressants such as SSRIs/MAOIs, and NSAIDS (including ibuprofen and Tylenol).

It's always a good idea to stick to recommended dosages of any herbs and also mention them to your doctor if you're taking other prescriptions, preparing for surgery or battling any chronic disorders — this way dangerous interactions don't potentially occur.

Uses and Dosage

You can find ginkgo in capsule, tablet, liquid extract or dried leaf form in most health food stores and also online.

Does Ginkgo biloba work immediately? It can take between four to six weeks to see any effects from ginkgo, depending on the condition you're attempting to treat.

Effects of ginkgo biloba seem to be dose dependent, so the more you take the bigger results you may see — although you still should carefully stick to recommended values. Depending on the condition, doses can range from 40 to 360 milligrams daily. A dose between 120 to 240 milligrams per day, divided into separate doses, seems to be both safe and effective in most cases.

In order to experience the ginkgo biloba benefits described above, follow these general dosage recommendations: Look for it in standardized extract form containing 24 percent to 32 percent flavonoids (also known as flavone glycosides or heterosides) and 6 percent to 12 percent terpenoids (triterpene lactones).

Final Thoughts

• Ginkgo biloba is one of the most well-touted supplements in the world for improving memory and cognitive health, as well as preventing chronic inflammation.

- It works by increasing the activity of antioxidants throughout the body. Germany and other European countries have introduced ginkgo biloba extract as a medication because of its many studied benefits.
- Although it's generally very safe, possible side effects of ginkgo can include digestive issues, headaches, dizziness and allergic reactions.

Reference: https://draxe.com/nutrition/ginkgo-biloba-benefits/