

Ginkgo biloba

My interest in the ginkgo plant dates from several years ago, when my brother brought me some of the leaves to be used as an herbal tea, tucked inside a mug inscribed with a poem by Goethe about the plant. The first stanza is as follows:

*To my garden here translated,
Foliage of this eastern tree
Nourishes the initiated
With its meaning's mystery*

The tea had a pleasant taste—sort of woody. Ginkgo is of course known by many as an herb with potential memory enhancing effects, though I didn't notice anything too dramatic myself. Maybe an extra bit of mental sharpness? Maybe I was just imagining it . . . the effect wasn't large enough for me to be sure; the herb slipped out of my life quietly.

But a couple of years later I remembered the herb and my previous experiences with it. At the time I was in school, having to absorb vast amounts of information; I sure did feel like I could use an extra cognitive edge. If that were possible—maybe it wasn't. I had had enough training in the biomedical sciences at that point to be somewhat skeptical. But I was also intrigued, and interested enough to try and learn more about the plant. I knew that ginkgo was a popular herbal supplement, but what was really known about it?

As it turns out, the tea that I had drunk was derived from the leaves of the Ginkgo biloba tree. Native to China, the Ginkgo tree is in fact the oldest surviving species of tree on the earth, only distantly related to other trees now alive. It is a slow growing, tall, tough tree which is now cultivated in Europe and the United States. Ginkgo is also noted for its unusual fan shaped leaves which are unique among all seed plants. The plants were brought to Europe in the 18th century, where they became quite popular.

The ginkgo supplement familiar to most westerners is made exclusively from the leaves of the ginkgo plant, though the Chinese have medicinally used both ginkgo leaves and ginkgo seeds for thousands of years. Practitioners of traditional Chinese medicine used the plant for multiple conditions, including memory problems, circulatory problems, pulmonary diseases, skin lesions, bladder problems, allergies and inflammatory disease, and fatigue. Current research in the west

has confirmed ginkgo's effectiveness in treating certain conditions. For example, there is now strong cumulative scientific evidence that ginkgo is an effective treatment for peripheral vascular disorders, as well as for Alzheimer's type dementia, vascular dementia, and cerebral insufficiency. Ginkgo has been researched for other purposes as well; early evidence suggests that ginkgo may prove beneficial for conditions as varied as age-related eye disorders, premenstrual syndrome, inner ear problems, depressed mood, and damaged to blood vessels secondary to chemotherapy. Evidence also suggests that ginkgo may indeed boost memory in normal individuals as well, though some studies have conflicted on this point, so the case is not yet one hundred percent proven.

I was a little disappointed to find this, myself; I would rather have had a definitive answer instead of finding some mixed though mostly positive evidence. But the wheels of science take time to turn: I imagine further research will only continue on this popular herb. At least we know that ginkgo leaves appear to cause relatively minimal side effects at moderate dosages, though they should not be used by individuals taking anti-coagulants or those with known bleeding disorders.

The leaves of the ginkgo plant contain multiple active constituents with separate beneficial properties; indeed, the form of ginkgo currently used medicinally is standardized to include a certain percentage of naturally occurring chemicals. For example, one of these constituents, bilobalide, has been shown to have various neuroprotective effects. Another of these constituents, quercetin, has been shown to have various anti-inflammatory properties. Other constituents of ginkgo have been shown to improve blood flow by dilating blood vessels and reducing the stickiness of platelets. Indeed, many of the uses of the ginkgo plant may derive directly from improved circulation to various areas of the body. Many of these active constituents are also antioxidants, molecules which help protect cells from the damaging effects of free radicals. That said, ginkgo's possible mechanism(s) of action remain only partly understood; almost two hundred years after Goethe's poem, it seems the full secrets of the ginkgo plant have yet to be uncovered.

Ruth J Hickman

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