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### **Ginkgo Biloba**

Ginkgo biloba L. (Ginkgoaceae) leaf extract (GBE) is among the most widely used traditional herbal medicines, and has been used to treat various diseases including depression, anxiety, headache, and memory impairment in Asia and Europe. Ginkgo (meaning “silver apricot”) biloba (referring to its two-lobed, fan-shaped leaves) is derived from the leaf of the Maidenhair tree. Also known as Japanese silver apricot, kew tree, ginkgo leaf or extract, and many other names. To date, experimental evidence has indicated that GBE is a useful therapeutic agent for disorders of cerebral circulation. Moreover, GBE treatment has been reported to alleviate hippocampal neuronal death following transient global ischemia via anti-inflammatory and anti-oxidative mechanisms, and has also been shown to improve memory deficits. It may slow down Alzheimer's disease by interfering with changes in the brain that interfere with thinking. It is today the most frequently prescribed herbal preparation in Germany, and one of the most commonly used over-the-counter (OTC) herbal preparations in the United States. The Ginkgo leaf product is produced from green, picked leaves grown on plantations specifically developed for pharmaceutical purposes. Ginkgo biloba leaf extract is available in various formulations (capsules, tablets, concentrated liquids, sublingual sprays, bars and cola drinks), as well as many combination products. Dozens of GB extract products are currently available to consumers. Most of these products use a 50:1 ratio by weight (50 pounds of leaf for each pound of extract) and are standardized to include 24% to 26% ginkgo flavonol glycosides. The products most commonly used in clinical trials are Ginkgo biloba standardized leaf extracts EGb761 (Tanakan) and

LI1370 (Lichewer Pharma), both available in the United States. Daily doses of 120 to 240mg of extract have been used in clinical trials for cognitive and circulatory disorders. Severe adverse reactions are rare, however spontaneous bleeding is a concerning side effect. Chronic use inhibits platelet aggregation and prolongs bleeding. Significant peri and postoperative bleeding have been reported. Orally at typical doses, Ginkgo biloba leaf extract can cause mild gastrointestinal upset, headache, dizziness, palpitations, constipation and allergic skin reactions. Larger doses can cause restlessness, diarrhea, nausea, vomiting, and weakness. Ginkgo pollen can be strongly allergenic. Contact with fleshy fruit pulp may cause allergic dermatitis similar to poison ivy. Ginkgo has generally been safe and has displayed no verified adverse drug interactions. However, it exhibits monoamine oxidase (MAO) inhibitor properties, which could exert a synergistic effect when combined with other MAO-inhibitor drugs. In addition, because ginkgo acts as an antiplatelet activating factor, caution should be used when it is administered with anticoagulants. Ginkgo Biloba has been used for so long to treat a wide range of different medical conditions. Similar to GB, parasympathomimetic drugs are used to treat dementia, a brain disease that causes long term and often gradual decrease in the ability to think and remember that is great enough to affect a person's daily functioning. Referral from friends that have used the product, and easy access may attract consumers. As a health educator and professional, our knowledge in natural products should at least include the effects of these products on our patients and how they impact any kind of treatment that we are providing. Any product that is being taken by the patient should be taken into consideration during treatment. In order to treat our patients safely, we need to take into consideration interactions with other

medications that we might be dispensing or even that the patient is taking to treat other medical condition.

### **REFERENCES**

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