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FILE: · American ginseng (*Panax quinquefolius*)  
· Stress

DATE: January 15, 2000

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## RE: American Ginseng Suggested as Stress Tonic

Awang, D.V.C. The Anti-Stress Potential of North American Ginseng (*Panax quinquefolius* L.), *Journal of Herbs, Spices & Medicinal Plants*, Vol. 6, No. 2, 1998, pp. 87 - 91.

Ginseng is traditionally reputed to regularize bodily functions and relieve many ailments resulting from physiological stress. Beneficial effects are thought to be due to a non-specific influence on production and use of regulatory hormones. As an "adaptogen", ginseng exhibits anti-fatigue, anti-stress, and anti-aging activity, as well as general improvement of mental and physical performance, "recognized in therapeutic claims permitted by a plethora of international regulatory constituencies."

North American ginseng (*Panax quinquefolius*) has been recognized since its discovery in Canada in 1716 as a distinct species from traditional Asian ginseng (*P. ginseng*). Traditional Chinese Medicine defines North American ginseng as a cooling or calming (yin) tonic, useful for treating stress-related problems. Asian ginseng is regarded as a heating (yang) tonic, and inappropriate for people who are already "overheated." *P. ginseng* is also recognized to have potential for elevating blood pressure.

Differences in the ginsenosides content of the two species may account for their different effects. Six to eight major ginsenosides (Rb1, Rb2, Rc, Rd, Re, Rf, Rg1, and Rg2) are widely regarded as the plant constituents most responsible for ginseng's bioactivity (Rf and Rg2 being absent from *P. quinquefolius*). For example, Asian ginseng usually has comparable quantities of Rb1 and Rg1; however, North American ginseng has very little Rg1. A table from a book written in 1988 by Daniel Mowrey indicates differences in bioactivity of Rb1 (CNS depressant, anticonvulsant, tranquilizing, anti-psychotic, etc.) and Rg1 (CNS stimulant, antifatigue, enhanced mental performance, etc.). Studies on aggressive behavior in mice have shown that Rb1 significantly suppressed aggression, but Rg1 did not.

This paper's author, Dennis Awang, a respected natural products chemist, concludes that North American ginseng's pharmacological profile supports its use in treatment of stress-related conditions, but that Asian ginseng in cases of acute stress should be avoided. —*Mariann Garner-Wizard*

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