

Supplement Sampler

Panax Ginseng: Should We Take “Tonics”?

Adaptogens are herbs that increase resistance to various forms of stress, improve immune function, stimulate stamina (physical, athletic, mental, and/or sexual) and are said to improve well-being overall. Panax ginseng, also called Asian, Chinese, Japanese, or Korean ginseng is the best known of these.

Best Indications

- Improving memory and cognition
- Type 2 diabetes (though data for American ginseng is more convincing)
- Erectile dysfunction
- Many people suggest this for chronic fatigue, but data is still limited

Mechanism of Action

Ginseng root contains a variety of potentially beneficial compounds, often called ginsenosides or panaxosides. They have a variety of effects on the circulatory system and nervous system (some are stimulating, others sedating). Some potentiate nerve growth factor and influence the hypothalamic-pituitary axis. Effects on nitric oxide levels have also been noted. Relative quantities of these ingredients vary based on where the roots are grown, their ages, how they are prepared, and other factors. Ginseng may act as a phytoestrogen (estrogen from plants).

Best Studies

- A study of 36 patients with newly diagnosed type 2 DM found that A1C's improved with a 200 mg (but not 100 mg daily) dose. Psychological parameters improved as well. *Sotaniemi, et al. Diabetes Care 1995;18:1373-5.*
- A relatively high dose (900 mg tid) was found to improve erection evaluation scores and objective measures of penile tip rigidity (!) in 45 men who supplemented with ginseng in a RCT with blinding and crossover. *Hong et al. J Urol 2002;168:2070-3.*
- Dosing ginseng in combination with ginkgo seems to improve function on tests such as Serial Sevens and improves memory measures in middle-aged adults. *Scholey, et al. Hum Psychopharmacol 2002;17(1):35-44* and *Sorensen, et al. Curr Ther Res 1996;57:959-68*
- A 1996 study of 227 volunteers indicated that giving people 100 mg of ginseng for 12 weeks enhanced the effects of influenza vaccine. Those who received treatment had lower cold and flu incidence and higher antibody titers than controls. *Scaglione, et al. Drugs Exp Clin Res 1996;22:65-72.*

Dose

For immune support, 100 mg a day has been used. 200 mg is worth a try in type 2 diabetes, and up to 900 mg three times a day has been used in erectile dysfunction trials.



Panax Ginseng

Side Effects

Side effects from ginseng are extremely rare. Some sources recommend limiting continuous use of ginseng to 3 months because of potential hormone-like effects. Vaginal bleeding, mastalgia, tachycardia, increased or decreased blood pressure, headache, and pruritis are among the adverse effects reported on rare occasions. Follow blood sugars in diabetics, because these may be lowered.

Ginseng is often listed as an herb that can interact with anticoagulant meds. One case study has suggested an affect on warfarin metabolism, and there is no evidence of anti-platelet effect in humans.

Cost

In Asia, cost varies based on the age of the ginseng roots, the source, and even based on how much the root looks like a person when harvested. *NOW* makes a 520 mg capsule that costs \$14 for 250 capsules on iherb.com. *Ontario ginseng* offers 1000 capsules for \$70 Canadian.

Comments

Ginseng has been used for well over two millennia in China. Six million Americans take it on a regular basis. Red and white ginseng differ in how the roots are prepared. High temperatures and pressures increase the production of ginsenosides.

Caution: There are many other ‘ginsengs’ out there. Siberian ginseng (Eleuthero) is different, as are American ginseng. Other herbs may be called ginseng because they are said to have similar benefits (e.g., ashwagandha is called Indian ginseng; maca is called Peruvian ginseng) but these are entirely different species of herbs with different profiles.

For a nice review in *American Family Physician* by a UW Med School grad and Madison native (David Kiefer), see the weblink <http://www.aafp.org/afp/20031015/1539.html>.

Clinical Bottom Line

Given its popularity, one would think that ginseng would be the focus of more research. It is safe to use, and it is worth a try when someone just seems to be generally low-energy (e.g., the chronic fatigue picture). Can help with type 2 diabetes, but there are other herbs that might be more effective. Try ginseng for several weeks, and then stop if no benefits are noticed. Note that memory studies find that ginseng combined with ginkgo has a much better effect than either alone. Worth a try in erectile dysfunction, though how it compares to other herbs for E.D. like long jack and horny goat weed (yes, those are their real names) is not clear.

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

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