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Review of Adaptogenic Herbs

Wallace, Edward. Adaptogenic Herbs: Nature's Solution to Stress. *Nutrition Science News*, May 1998, Vol. 3, No. 5, pp. 244-250.

The premise of this article centers on the definition of an adaptogen written in 1958 by Russian holistic medical doctor I.I. Brekhman. Brekhman states it must be "innocuous enough and cause minimal disorders in the physiological functions of an organism, it must have a non-specific action, and it usually has a normalizing action irrespective of the direction of the pathological state." Many herbs have exactly these properties, according to the author.

"At the core of an adaptogen's scope of actions is the ability to help the body cope more effectively with stress," this author explains. This action amounts to recharging the adrenal glands, the body's stress-response mechanism. The adrenal glands (covering the upper surface of the kidneys) synthesize dopamine, norepinephrine and epinephrine, compounds "responsible for the changes that occur [in the body] during the fight-or-flight reaction." Stress-related health problems are said by this author to include asthma, angina, cancer, depression, diabetes, minor illnesses, hypertension, irritable bowel syndrome, PMS, ulcers, and more. Studies indicate that adaptogens not only help the body cope with stress, but can enhance general health and performance. Twelve adaptogenic herbs are described in detail.

Asian ginseng (*Panax ginseng*) is here called the "gold standard" of adaptogenic herbs. In traditional Chinese medicine (TCM), Chinese ginseng is a yang chi (or male energy) tonic and is best avoided by hot-tempered people. "Numerous studies" are said to support Asian ginseng's ability to enhance mental and physical performance. Studies show that ginseng increases endogenous adrenocorticotropic hormone (which in turn stimulates adrenal hormone secretion), and exerts antioxidant, anti-depressant, antidiabetic and antihypertensive effects. The author also reports that in one study of "1,987 cancer cases, researchers found that the risk of developing certain cancers in a population that used ginseng for at least one year was less than the risk for the general population. The risk continued to decrease with use up to 20 years. He says that ginseng was found to protect against cancers of the "mouth, esophagus, stomach, colorectum, liver, lung, pancreas and ovaries."

American ginseng (*Panax quinquefolius*) is in the same genus as Asian ginseng and contains many of the same ginsenosides. In TCM, however, it is considered a yin tonic, appropriate for "hotter" constitutions.

Siberian ginseng (*Eleutherococcus senticosus*), although not a true ginseng, is said to possess similar properties. An analysis of several studies, cumulatively involving 2,100 men and women aged 19 to 72, suggest that eleuthero enhances mental alertness, work output and quality, athletic performance, and the ability to withstand adverse conditions such as heat and noise.

The effects of suma (*Pfaffia paniculata*), a Brazilian herb with purported adaptogenic activity have not been studied much; the author notes that the herb contains vitamins A, E, B1 and B2, and 19 amino acids including lysine, histidine, arginine and glycine. Anecdotes from Japan and elsewhere suggest that suma can be beneficial for bronchitis, high cholesterol, anemia, diabetes, fatigue and stress, and may help alleviate pain.

Ashwaganda (*Withania somnifera*) is an ancient Ayurvedic herb, used as a tonic, "alterative," astringent, nervine and sedative. Recent studies apparently suggest that ashwaganda is immuno modulating and successfully treats psychological complaints such as anxiety.

Astragalus (*Astragalus membranaceus*), a TCM herb, has been shown in "numerous studies" to enhance immune function by increasing natural killer cell activity, T cell activity and macrophage activity.

Licorice root (*Glycyrrhiza glabra* and *G. uralensis*) is highly regarded in TCM. The herb stimulates the adrenal cortex and enhances immune system function. Authors Werbach and Murray say licorice compounds exhibit estrogenic and "aldosteronelike" activity (this last action can cause sodium retention and hence high blood pressure in some people). They consider it antiinflammatory, antiallergic, antihepatotoxic and antineoplastic.

Schisandra (*Schisandra chinensis*) is used in TCM as a general tonic and to promote liver health. Studies show its normalizing effects on insomnia and neurasthenia; it also appears to improve mental coordination and physical endurance.

Jiaogulan (*Gynostemma pentaphyllum*), an Asian gourd, appears to contain nearly four times the saponins as Chinese ginseng. These saponins are similar to ginsenoside; "preliminary studies" suggest "even more powerful regulatory effects on body systems." Jiaogulan is said to demonstrate antibacterial and anti-inflammatory activity, and to regulate blood pressure, bolster the immune system, improve fat metabolism, moderate cholesterol levels and "enhance strength and physical endurance."

Finally, the author lumps reishi (*Ganoderma lucidum*), shiitake (*Lentinus edodes*), and maitake (*Grifola frondosa*) in one group because they are mushrooms. Their reputed adaptogenic, antitumor and immune-potentiating properties are drawing increasing attention. —*Betsy Levy*

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