

HERBAL CLIPPINGS

VALERIAN SEDATION EXPLAINED

University of Bonn Scientists identified a substance in valerian root (*Valeriana officinalis*) that has a previously unknown sedative effect. The lignan compound latches on to brain receptors that control sleeping and waking rhythms. It was previously assumed that valerian intervened with GABA, a brain neurotransmitter that produces tiredness. It now seems to work similarly to the molecule adenosine, targeting specific receptors that trigger drowsiness, although the two bear little similarity. Unlike adenosine, it only kicks in if there is a high density of brain receptors and does not relax the heart muscle (myocardium), which would potentially cause paralysis. (Adenosine also decomposes in seconds, so is not suitable as a sedative.) Caffeine has the opposite action on the same receptors—an indicator of nervousness—by reducing alpha brain waves while increasing beta waves. When Swiss pharmaceutical company Zeller tested it on 50 people, valerian reduced coffee's effect. Researchers are trying to synthesize lignan's active parts to make it even more effective. [Ed. note: Many lignans are medicinal: For example, gomisin A from Schisandra (*Schisandra chinensis*) inhibits hepatitis, and sesamin in sesame seeds (*Sesamum orientale*) may prevent ultraviolet light skin reactions [see *AHA* 17:4 & 19:1]. Schumacher B, et al. 2002. Lignans isolated from valerian: identification and characterization of a new olivil derivative with partial agonistic activity at A(1) adenosine receptors; & Diaper A and I Hindmarch. 2004. Double-blind, placebo-controlled investigation of the effects of two doses of a valerian preparation on the sleep, cognitive and psychomotor function of sleep-disturbed older adults. *Phytother Res* 18(10):831-6.

MULTIPURPOSE ST. JOHN'S WORT

St. John's wort (*Hypericum perforatum*) has been found to reduce levels of myeloperoxidase, an enzyme that promotes inflammation. It worked much like antiinflammatory drugs when tested on human white blood cells. Before becoming popular for depression, it was mainly used to reduce the inflammation of sprains and bruises and to heal wounds.

New findings challenge the idea that St. John's wort acts as an antidepressant by producing a major change in norepinephrine uptake or monoamine oxidase activity in the brain. Instead, it may have a novel action on dopamine beta-hydroxylase. A double-blind, randomized, crossover study gave 16 healthy subjects either St. John's wort (300 mg.), the drug Imipramine (50 mg.), or a placebo three times daily for a week. Physiologic and biochemical tests showed a consistent increase of DOPAC in the blood stream. St. John's wort had no effect on blood pressure, heart rate, or heart rate variability.

Pabuccuoglu, A. 2003. The in vitro effects of *Hypericum* species on human leukocyte myeloperoxidase activity. *J Ethnopharmacol* 87(1):89-92; & Schroeder C, et al. 2004. Influence of St. John's wort on catecholamine turnover and cardiovascular regulation in humans. *Clin Pharmacol* 76(5):480-99.

SELF-HEALING HERPES

An extract of self-heal or heal-all (*Prunella vulgaris*) may prove to be a powerful new herpes treatment. It contains a lignin-carbohydrate complex that strongly inhibits herpes infections. While the anti-viral effects are due mainly to its ability to inhibit the replication of the virus, four polysaccharide compounds have been discovered in it that strongly stimulate the immune system. This is probably at least partially responsible for its anti-microbial effects. Toothpaste made with a combination of self heal and plume poppy (*Macleya cordata* aka. *Bocconia cordata*) effectively helped control gingivitis, including symptoms of plaque and bleeding in a double-blind, placebo trial with 40 volunteers.

Chiu, L.C, et al. Polysaccharide fraction from medicinal herb P.v. down regulates the expression of herpes simplex virus antigen in vero cells. *J Ethnopharmacol* 93(1):63-8; & Fang X, et al. 2005. Immune modulatory effects of P.v. *Int J Mol Med* 15(3):491-6; & Adamkova H, et al. 2004. M.c. and P.v. in oral hygiene products- their efficacy in control of gingivitis. *Biomed Pap Med Fac Univ Palacky Olomouc (Czech Repub)* 148(1):103-5.

Super Lysine+, an L-lysine-based herbal ointment from Quantum, may heal cold sores, according to research presented at the Scripps Institute for Integrative Medicine Conference. After the third day of use, 40% of the volunteers who used it were completely cured. That number increased to 86% by

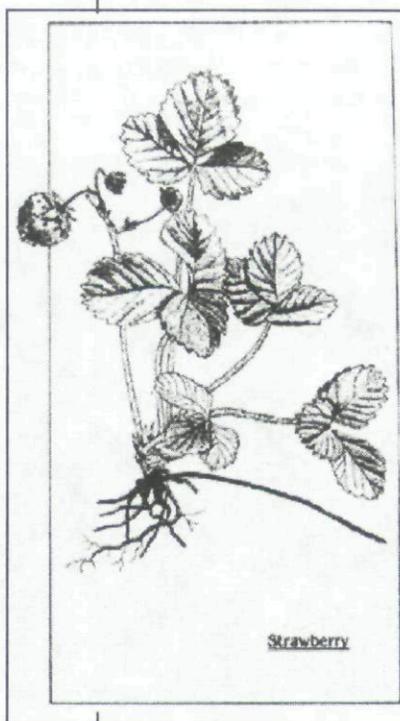
the sixth day and all cases of herpes were completely gone by day 11. The ointment contains L-Lysine, vitamins A & C, and bee propolis with garlic (*Allium sativa*), goldenseal (*Hydrastis canadensis*), echinacea (*Echinacea purpurea*), and licorice (*Glycyrrhiza glabra*).

Health Supplement Retailer, July 2004.

Plantain (*Plantago major*), both a traditional Western and Chinese medicine, has long been used for treating colds, viral hepatitis, herpes (viruses 1 and 2), and adenoviruses. It contains five different classes of compounds that were

shown to be potent antivirals, especially caffeic acid. A water extract made from the whole leaf was only slightly effective against herpes.

Chiang, L.C, et al. 2002. Antiviral activity of P.m. extracts and related compounds in vitro. *Antiviral Res* 55(1):53-62.



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