



## HERBS USED FOR PSYCHOTROPIC OR BEHAVIOR MODIFYING ACTIVITY

Jonathan Klemens, B.S. Bio, RPh, FAAIM

*Herbs are the "Millennial Medicines" - they have  
been around forever and will be here forever."*

- Mark Blumenthal

(Founder and Director of the American Botanical Council)

Herbs have been highly valued and used regularly for thousands of years by the peoples of the world as the medicine of the masses. Man has always searched for that herb that heals the body and soothes the mind and there has never been a shortage of vegetation to investigate with some 20,000 species that have been used by various cultures. Medicinal plants have been used to treat such psychotropic and behavioral conditions as anxiety, depression, seizures, poor memory, dementia, insomnia, and drug intoxication.

Herbal therapy may well provide an alternative to treating some psychiatric conditions. According to the American Psychiatric Association, approximately 10-25% of women and 5-12% of men will suffer from depression at some point in their lives. Major surveys estimate that about 7% of Americans will suffer from schizophrenia at some point in their lifetimes and about 2.5 million will suffer from bipolar disorder.

Western allopathic medicine has gradually evolved into a "Mecca" of the simplistic "active ingredient" mentality. Natural products, on the contrary, are complex and often contain many potentially active substances. But as western medicine evolved through the Twentieth Century, people wanted an easy to swallow pill of a concentrated "active ingredient," or now, perhaps a synthetic pharmaceutical equivalent. As a result, potentially valuable herbal formulas may not have been investigated and are forever lost.

Presently, there is a resurgence of herbal medicine as people want more control in their personal healthcare. According to the Journal of the American Medical Association (JAMA), in 1997, 40% of all Americans used alternative or complimentary therapies. They spent over \$27 billion for services, products, books and classes. The U.S. herbal market is growing tremendously with consumer demand way ahead of regulatory agencies. It is interesting to note that four (Ginkgo, St. John's Wort, Valerian, Kava) of the top ten herbs purchased in the U.S. (according to 1999 Whole Foods Survey) have psychotropic activity.

Herbs contain many complex substances that may account for the variety of the claimed medical uses. There is limited information regarding herb-drug and herb-herb interactions and the mechanisms of metabolism and excretion are largely unstudied. Also, herbal products are generally unregulated and often health claims are unsubstantiated or sometimes exaggerated. We must not assume that since an herb has been used for thousands of years, that the herb is necessarily safe and truly effective for its claimed indication(s).

In this article, I will only refer to claims for psychotropic or behavior modifying activity even though these herbs may have many other therapeutic effects. Naturally, when using herbal psychotropics, one must always consider the differences between various cultures in regard to classifications of "illness," "disorder," or aberrant behaviour. The effects and adverse reactions to herbs may vary with individual patients. Some herbs are contraindicated, or should be used with caution, in patients pregnant or breast-feeding or in children.

## WESTERN / EUROPEAN HERBS

Herbs have been valued for thousands of years in the Western World as food and medicine and are the heart of the Western folk medicine tradition.

**CANNABIS INDICA** - May be effective in treating delirium tremens.

**CHAMOMILE, GERMAN (MATRICARIA RECUTITA, ANTHEMIS NOBILE, BLUE CHAMOMILE, GERMAN CHAMOMILE, TRUE CHAMOMILE)** - May have mild sedative effect. Often taken as a tea. Active ingredient is apigenin.

**INTERACTIONS:** May potentiate effects of anticoagulants. Avoid use of concomitant antispasmodics.

**ADVERSE REACTIONS:** Allergic reactions including allergic conjunctivitis and anaphylaxis. German chamomile can also cause allergic reactions in individuals sensitive to the Asteraceae/Compositae family. Members of this family include ragweed, chrysanthemums, marigolds, daisies, and many other herbs.

**CAUTION:** Do not use in pregnant or breast-feeding patients. Chamomile is believed to be an abortifacient and some of its components have exhibited teratogenic effects in several animals (Habersang et al., 1979). The long-term safety of German chamomile in medicinal doses is unknown.

**EVENING PRIMROSE (OENOTHERA BIENNIS, KING'S-CURE-ALL, EPO, FEVER PLANT, NIGHT WILLOW-HERB, PRIMROSE)** - Evening Primrose Oil (EPO) is a fixed oil from the seeds of *Oenothera biennis* or related species. It contains essential fatty acids (EFA) that are vital components of cellular structure. Used as anxiolytic and to reduce hyperactivity in children.

**INTERACTIONS:** Use with phenothiazines may increase the risk of seizures.

**ADVERSE REACTIONS:** Headache, nausea, rash. Inflammation, thrombosis and immunosuppression may occur with long term use.

**CAUTION:** Do not use in patients pregnant or breast-feeding. Contraindicated in epilepsy – May exacerbate temporal lobe epilepsy. Do not use in patients currently on phenothiazine antipsychotics or diagnosed with schizophrenia.

**GARLIC (ALLIUM SATIVUM, AIL, CAMPHOR OF THE POOR, DA-SUAN, NECTAR OF THE GODS, POOR MAN'S-TREACLE, STINKING ROSE)** - One of the wonder herbs! Affectionately known as the "Stinking Rose" it is a member of the lily family. Garlic acts as an antioxidant and has many uses including a tradition of treating age-related memory loss and to lower blood pressure and to prevent strokes. Important compounds include: Allicin, Alliin, S-allylcysteine and Gamma-glutamylcysteines.

**INTERACTIONS:** If taking anti-coagulant medication, or if you are scheduled for surgery, consult a physician.

**ADVERSE REACTIONS:** Allergic reactions can occur and may not be tolerated by those allergic to sulfur. May cause heartburn and flatulence.

**CAUTION:** Contraindicated in patients sensitive to Lilaceae family and those with peptic ulcer or reflux disease. Do not use in pregnant patients or those breast-feeding because of its oxytocic effects.

**GINKGO (GINKO BILOBA, GINKOGINK, ROKAN, TEBONIN, TANAKAN)** - Also known as Oriental plum tree, hill apricot, maidenhair tree, kew tree, silver apricot, silver plume, silver fruit. The ginkgo is one of the oldest living trees known to mankind. This mighty tree can live to 1,000 years and grow to a height of 100-125 feet and a diameter of 3-4 feet! A solitary ginkgo is said to have survived the atomic blast on Hiroshima - a ginkgo sprout grew from the completely destroyed base! Active ingredients, named ginkgolides A, B, C, J and M, have been identified. Known to

improve blood circulation, this herb has shown much progress in improving memory and may be useful to relieve the symptoms of Alzheimer's disease. Also acts as a radical scavenger and anti-oxidant. Mechanism of action is not fully known.

**INTERACTIONS:** May increase bleeding if used with anticoagulants or antiplatelets.

**ADVERSE REACTIONS:** This herb should be taken with meals since it may cause gastrointestinal disturbances. Ginkgo may also cause headaches, seizures, irritability, hyphema, palpitations, dizziness or rash in some individuals. Has caused Stevens-Johnson syndrome.

**CAUTION:** Palpitations and cardiac arrhythmias have also been reported. Do not take while pregnant. Do not use in children. Since ginkgo has anticoagulant effects, it should not be used in combination with medications or other herbs that have an anticoagulant or antiplatelet effects (i.e. Aspirin, ibuprofen, garlic, etc.) without consulting a physician. May alter insulin secretion and metabolism. May decrease blood pressure, but may actually increase blood pressure when used concomitantly with thiazide diuretics. Tends to potentiate activity of MAOIs. Also, do not use with tricyclic antidepressants or other medications that decrease seizure threshold.

**GINSENG (PANAX GINSENG, "KING OF TONICS", FIVE-FINGERS, JINTSAM, SCHSENT, SENG AND SANG, NINJIN, TARTAR ROOT)** - Asian (China and Korea) ginseng is one of the world's most famous herbs! Used in China for over 5,000 years, Ginseng was praised as a wonder drug in the writings of Marco Polo! Often referred to as an "adaptogen," a relatively new term for substances that increase the body's overall resistance to all types of stress. Claimed to increase energy and endurance and also claimed to have some anxiolytic effects. Indirect evidence of MAO inhibition as possible mechanism for anxiolytic effect. Controlled studies in animals showed prevention of development of dopamine receptor super sensitivity induced by chronic methamphetamine administration.

**INTERACTIONS:** May increase bleeding tendency and may increase effect of antidiabetic agents and insulin causing hypoglycemia.

**ADVERSE REACTIONS:** Chest pain, diarrhoea, headache, hypertension, insomnia, impotence, epistaxis, mastalgia, nausea, vomiting, nervousness, palpitations, pruritus, skin conditions, and vaginal bleeding. May prolong QT interval and interfere with immunosuppressants. Has caused Stevens-Johnson syndrome.

**CAUTION:** Do not use in pregnant patients or those breast-feeding. May increase blood pressure. Use with caution in patients with CV disease, hypertension, hypotension, diabetes and those receiving steroid therapy. Do not use in kidney failure. Use with caution in patient's on digoxin therapy and anticoagulant therapy. Do not use if pregnant or in acute infections. May antagonize or potentiate effects of antidiabetic drugs. May cause nervousness and excitement and may interfere with anti-psychotics and MAOIs. May potentiate stimulants, especially caffeine.

**GOTU KOLA (CENTELLA ASIATICA, INDIAN PENNYWORT, INDIAN WATER NAVALWORT, MARSHY PENNY, BRAHMA-BUTI, BRAHMA-MANDUKI)** - Orally, gotu kola is used for reducing fatigue, anxiety, depression, improving memory and intelligence.

**ADVERSE REACTIONS:** In some patients it can cause gastrointestinal upset and nausea. Theoretically, gotu kola might also cause drowsiness.

**HOPS (HUMULUS LUPULUS, EUROPEAN HOPS, HOP STROBILE, HOPFENZAPFEN, HOUBLON)** - This herb, often used in beer, has a calming effect on the body.

**INTERACTIONS:** May cause additive effects with CNS depressants. Hops may decrease plasma levels of drugs metabolized by the cytochrome P-450 system. Use with phenothiazine-type antipsychotics may cause additive effects on hyperthermia.

**ADVERSE REACTIONS:** Anaphylaxis and allergic reactions, bronchial irritation, decreased cognitive performance, sedation.

**CAUTION:** Contraindicated in patients with estrogen-dependent tumors.

**KAVA (PIPER METHYSTICUM, AWA, KAVA-KAVA WURZEL, KAWA, KEW, TONGA, YAGONA, INTOXICATING PEPPER)** - Derived from the knotty root of a large tropical shrub in the

black-pepper family, this herb is used as a natural relaxant and sleep aid. Kava acts on the same receptors and same area of the CNS that have increased GABA receptors. Improvement equivalent to benzodiazepines for generalized anxiety, and social and specific phobias. Kava has been shown to be effective for mild to moderate anxiety but it should not be used for day-to-day stress. It should be reserved for times of particularly high anxiety.

**INTERACTIONS:** Use standardized extracts and avoid taking with other relaxant herbs (such as passion flower and valerian) or with depressant drugs (alcohol, prescription sedatives). Kava intensifies the effects of alcohol, benzodiazepines and other psychoactive drugs. Kava used with alprazolam has resulted in coma.

**ADVERSE REACTIONS:** Drowsiness (higher doses), dopamine antagonism, weight loss, increased patellar reflexes, shortness of breath, pulmonary hypertension, reduced plasma proteins, urea and bilirubin levels, visual disturbances (chronic heavy use). May cause drowsiness - use caution when driving. Long-term high use has resulted in yellow skin discoloration, scaling and scabbing of the skin (Kava dermatopathy).

**CAUTION:** Extreme caution - Can cause severe liver damage resulting in liver transplant causing kava to be banned in several countries. Do not use in patients pregnant or nursing or if patients have Parkinson's disease. Do not use in patients under 12. Use cautiously in patients with renal disease, thrombocytopenia or neutropenia. Avoid concomitant use with psychotic agents.

**LAVENDER (LAVENDULA OFFICINALIS, ASPIC, ECHTER, LAVANDA, NARDO, SPIGO, LAVANDE COMMUN)** - Lavender consists of essential oils, with over 100 compounds. This herb has been shown to cause CNS depressant effects, anticonvulsant activity and potentiation of the sedative effects of chloral hydrate in rats. Used by herbalists for nervous tension, restlessness, depression, and insomnia.

**INTERACTIONS:** May potentiate the sedative effects of alcohol, benzodiazepines and narcotics.

**ADVERSE REACTIONS** - With ingestion of larger doses (based on narcotic-like potential): Constipation, contact dermatitis, CNS and respiratory depression, headache, miosis, nausea, vomiting and headache.

**CAUTION:** Contraindicated in pregnant patients or those breast-feeding. Use with caution in patients using sedative agents. Lavender tincture is usually used. Lavender oil should be considered potentially poisonous. Large doses are claimed to exhibit "narcotic-like" effects.

**LEMON BALM (MELISSA OFFICINALIS, CURE-ALL, DROPSY PLANT, HONEY PLANT, MELISSA)** - This member of the mint family has been used to relieve anxiety and insomnia. As an inhalant, lemon balm is used as aroma therapy for Alzheimer's disease.

**ADVERSE REACTIONS:** Orally, lemon balm is well tolerated, but it can cause nausea, vomiting, dizziness, abdominal pain, and wheezing.

**ROSEMARY (ROSMARINUS OFFICINALIS, COMPASS PLANT, INCENSOR, OLD MAN)** - Shows anti-seizure activity. May cause an increase in GABA.

**ADVERSE REACTIONS:** Anti-fertility actions, dermatitis, photosensitive, erythema, and possible stomach and intestinal irritation.

**CAUTION:** Contraindicated in pregnant patients or those breast-feeding. Use with caution in patients with a prior plant sensitivity reaction.

**SKULLCAP (SCUTELLARIA LATERIFLORA, MAD DOG WEED)** - As its name implies, the flower of this plant resembles a cap. Skullcap is used for its calming effect on the body, insomnia, anticonvulsant effects, and to lessen the symptoms of alcohol withdrawal.

**INTERACTIONS:** May cause an altered effect on serum immunoglobins.

**ADVERSE REACTIONS:** Hepatotoxicity. In overdose: Arrhythmias, confusion, giddiness, seizures, stupor and twitching.

**CAUTION:** Avoid in pregnant or breast-feeding patients. Effects are unknown.

**ST. JOHN'S WORT (HYPERICUM PERFORATUM, AMBER TOUCH-AND-HEAL, BALSANA, DEVIL'S SCORGE, GOAT WEED, SJW)** - This herb flowers on June 24, St. John's Day. Used as a mild tranquilizer and as a treatment for depression, insomnia and as a muscle relaxer. St. John's Wort should be used for short term under the supervision of a physician.

Scientists have isolated over 50 active compounds from St. John's Wort! Of these many active substances, hypericin, a naphthodianthrone, is believed to have antidepressant activity. This plant extract binds to GABA receptors in vitro and inhibits reuptake of serotonin, norepinephrine and dopamine. This compound reaches a peak plasma level at 5 hours after ingestion with a plasma half-life of 25 hours. Mechanism of action is likely a combined synaptosomal reuptake inhibition of serotonin, norepinephrine, and dopamine. Possibly has a weak MAO inhibitor effect. There is also some evidence that interleukin-6 inhibition is involved in its antidepressant mechanism. Excretion pathways have not been fully studied.

**INTERACTIONS:** St. John's Wort appears to induce some cytochrome P-450 enzymes, resulting in decreased effects of some drugs that share this pathway. Since its activity mimics the activity of monoamine oxidase inhibitors, it could react with certain foods high in tyramine and certain medications (like "Prozac", "Paxil", "Luvox", "Zoloft"). A mild serotonin syndrome was observed in several patients while on St. John's Wort and an SSRI. It may also react with some cold preparations (like pseudoephedrine, phenylpropanolamine, ephedrine) causing a serious increase in blood pressure. So far, the wide use of this herb in Europe has not given evidence these reactions occur.

Theophylline and digoxin levels have been shown to decrease while taking this herb. Several cases reported a reaction between the herb and cyclosporine. The interaction resulted in acute heart transplant rejection. Use of this herb with protease inhibitors and nonnucleoside reverse transcriptase inhibitors may result in decreased effects of these drugs.

**ADVERSE REACTIONS:** Include increased, and sometimes extreme, sensitivity to light, dry mouth, dizziness, confusion, possible mania (in patients with bipolar disorder) and gastrointestinal complaints.

**CAUTION:** Avoid use in pregnant patients or those breast-feeding and in children. Should not be used by individuals on MAOI's or other antidepressants. Should not be used by suicide prone, psychotic, or severely depressed. Avoid foods high in tyramine. This herb has caused extreme sensitivity to light in some individuals. Users who were exposed to sun have suffered short-term nerve damage (subacute toxic neuropathy) that lasted about two months. There was no evidence of burns or blisters. No pain was caused when sun exposed areas were subject to touch, wind or cold. Avoid exposure to sun and tanning beds.

**VALERIAN (VALERIANA OFFICINALIS, ALL HEAL, AMANTILLA, HERBA BENEDICTA, SETWELL, BALDRIANWURZEL, KATZENWUREL, PHU GERMANICUM, PHU PARVUM)** - An effective and reliable sleep aid. Also claimed to be effective in anxiety, nervous irritability and possibly depression. Sometimes combined with lemon balm for enhanced sedation. Effect likely mediated through GABA antagonist activity. Interestingly, 5% of patients may experience a paradoxical stimulant effect.

**INTERACTIONS:** May potentiate the effect of alcohol, CNS depressants, and sedatives.

**ADVERSE REACTIONS:** With acute overdose/chronic use - blurred vision, cardiac disturbance, excitability, headache, insomnia, dizziness, cardiac disturbance, vivid dreams, morning drowsiness, feeling of "strangeness," hypersensitivity reactions, hepatotoxicity.

**CAUTION:** In high doses, this herb may cause paralysis and a weakening of the heartbeat. Because of its risk of hepatotoxicity, use with caution in patients with hepatic impairment. Do not exceed recommended dose. Advise to exercise caution when driving.

## TRADITIONAL CHINESE HERBS

Traditional Chinese Medicine (TCM) dates back thousands of years and is used by about 25% of the world's population. The American Association of Oriental Medicine (AAOM) estimates that over 12 million Americans visit TCM practitioners each year. A key part of TCM includes the centuries old herbal medicine tradition.

Traditional Chinese herbal formulas are made from roots, stems, barks, leaves flowers and seeds of many plants. Single remedies are seldom used since they can be toxic over a period of time. Combinations of herbs are usually used and are blended and simmered into a "soup" - an herbal decoction. This decoction is usually taken by the cup 1-3 times a day. Some patent formulas are available in a pill or powder form which makes them easier to purchase and use.

❖ **Caution: The FDA has detected adulterations, contamination (toxic substances such as heavy metals, or substitution in some Chinese herbs.**

**AN MIEN PIAN** - Used to treat anxiety and mental exhaustion.

**ARALIA ELATA** - Used to prevent or lesson ethanol intoxication. Active ingredient is oleanolic acid oligoglycoside. May inhibit alcohol absorption across cell membranes in digestive tract.

**BAI ZI YANG XIN WAN** - Used for insomnia, anxiety and mental restlessness.

**BU LAI CAS** - This free-radical scavenger is traditionally used to treat senile dementia.

**BUPLERUM (CH'AI HU)** - Believed to reduce anxiety.

**DA T'SAO (JUJUBE DATE)** - This herb has a calming effect on the body and is used to treat insomnia and dizziness.

**DING XIN WAN** - Used to treat restlessness, anxiety, insomnia and poor memory.

**DONG QUAI (ANGELICA SINENSIS, TANG KUEI, "FEMALE GINSENG", ANGELICA ROOT, ENGELWURZEL, ROOT OF THE HOLY GHOST)** - Used to treat insomnia.

INTERACTIONS: Will significantly prolong PT with warfarin.

ADVERSE REACTIONS: Photodermatitis, phototoxicity, increased bleeding risk with heparin and warfarin.

CAUTION: This herb should never be used during pregnancy, breast feeding. Use cautiously in diabetics.

**DON SEN (TANG SHEN)** - Considered a milder version of ginseng, and used as a tonic and energizer.

**MI DIE XIANG** - (see ROSEMARY above)

**PEONEA LACTIFLORA (PEONY ROOT EXTRACT)** - Used in traditional Chinese preparations to treat dementia. Mechanism may be related to stimulated adrenergic activity.

**QIAN JIN YI FANG** - An herbal compound containing schizandra species, ginseng, and biota that is used to enhance memory and prevent memory loss.

**REN SHEN** - (see GINSENG above)

**SCHIZANDRA (SCHIZANDRA FRUCTUS, SCHIZANDRA CHINENSIS, GOMISHI, OMICHA, WU-WEI-ZU)** - Considered an adaptogen, and similar to ginseng, it is believed to increase stamina and fight fatigue and have an antidepressant effect. Also used in China as a youth enhancer and mild sedative.

[Click here to email this article](#)

ADVERSE REACTIONS: Profound CNS depression (rare).

**SHI QUAN DA BU WAN (TEN FLAVOR TEA)** - Used to treat anxiety and debility.

**TIAN WANG BU XIN WAN (EMPEROR'S TEA)** - Used to treat insomnia, restlessness, anxiety and vivid dreaming.

## AYURVEDIC HERBS

Ayurveda is the 5,000 year old holistic Indian art of healing and rejuvenation that is recently becoming widely available and popular in the West. A recent study in the "Journal of Social Behaviour and Personality," said that Ayurvedic purification, including body massage and an herbal enema, reduced free radicals in the blood, increased energy, improved digestion, and reduced symptoms of illness.

❖ **Caution: The FDA has detected adulterations, contamination (toxic substances such as heavy metals, or substitution in some Ayurvedic herbs.**

**AHIPHENAM PAPAVER SOMNIFERUM)** - Used for anxiety and as a sedative.

**ARALIA ELATA** - Shown to inhibit alcohol absorption.

**BADAMA (PRUNUS AMYGDALUSA)** - Used to increase mental energy and as a nerve tonic.

**BRAHMI (BACOPA MONNIERI, BRAMBHI, THYME-LEAVED GRARIOLA)** - Used as nerve tonic and sedative. Has been use to treat "insanity", depression and epilepsy. Seizure protection was shown comparable to benzodiazepines. Shows anti-psychotic activity similar to chlorpromazine. Sometimes used with other agents to make formulations.

**GARIJARA (DAUCUS CAROTA)** - Nerve tonic.

**JATAMANSI (NARDOSTACHYS JATAMANSI)** - Used to treat nervousness, anxiety and insomnia.

**KUMKUMA (CROCUS SATIVUS)** - Nervine sedative.

**KAPIKACHCHHA (MUCUNA PRURIENS)** - Nervine tonic.

**KARPOOR (CINNAMOMUM CAMPHORA)** - Used for nervousness.

**MADANA (RANDIA DUMENTORIUM)** - Used as a sedative and nervine calmative.

**MANDUKAPARNI (CENTELLA ASIATICA, BRAHMAMANDUKI, GOTU KOLA, PENNYWORT)** - Used as a sedative, alterative, and anxiolytic (SEE GOTU KOLA ABOVE). Shown to improve memory and exhibit a positive effect on behaviour. The glycosides, brahmoside and brahminoside, have exhibited sedative effects.

**MENTAT** - A traditional herbal compound that shows efficacy in reversing acute benzodiazepine withdrawal. Likely mechanism appears to be related to improved cholinergic activity.

**SHANKAPUSHPI (EVOLVULUS ALSINOIDES)** - Used for anxiety and memory loss.

[Click here to email this article](#)

**VACHA (ACORUS CALAMUS, BACH, SWEET FLAG)** - Used as a sedative, anxiolytic, sleeping aid, nervine and rejuvenator of the nervous system. It is also used to reduce fatigue and to improve memory. Asarone and beta-asarone are considered to be the active constituents.

CAUTION: Classified as unsafe by the FDA, it has been used for centuries in Ayurvedic medicine.

**WITHANIA SOMNIFERA** - Used to enhance memory and lesson age-related cognitive deficits. May help prevent tolerance and dependence with morphine. No significant adverse toxicity or adverse reactions reported.

**YAVANI (HYOSCYAMUS NIGER)** - Chronic dementia, hysteria, sedation.

## KAMPO (JAPANESE) MEDICINAL HERBS

**CAMELLIA JAPONICA** - Used to prevent or lessen ethanol intoxication during heavy drinking. May inhibit alcohol absorption.

**KAMI-UNTAN-TO** - Used to treat age-related memory loss and dementia. Indirectly increases available acetylcholine by inducing the transcription of choline acetyltransferase and nerve growth factor mRNA. Mechanism may be due to stimulated nerve growth factor production.

## AFRICAN HERBS

**MAPROUNEA AFRICANA** - Used in Congo as a traditional medicine to treat seizures. May have slight sedative-hypnotic activity.

## SOUTH AMERICAN HERBS

**GUARANA (PAULINA CUPANA, BRAZILLAN COCOA, ZOOM)** - This herb is used in South America for its stimulating effect and to relive physical fatigue. The seeds of this plant contain up to 5% caffeine. In Brazil it is used in soft drinks.

INTERACTIONS: May decrease response of adenosine, may enhance response of beta-adrenergic agonists, may decrease iron absorption, may inhibit clearance of lithium, may cause additive CNS and CV effects with theophylline. In general, will interact the same as caffeine.

ADVERSE REACTIONS: Diuresis, insomnia, side effects attributed to caffeine.

**MATE (ILEX PARAGUARIENESIS, CHIMARRAO, HERVEA, JESUIT'S TEA, PARAGUAY TEA, BARTHOLEMEW'S TEA, MATE FOLIUM, YERBA MATE)** - Used in Argentina as an energizer and tonic. Matte contains caffeine, vitamin C, A. and B complex.

INTERACTIONS: May decrease response of adenosine, may enhance response of beta-adrenergic agonists, may decrease iron absorption, may inhibit clearance of lithium, may cause additive CNS and CV effects with theophylline. In general, will interact the same as caffeine.

ADVERSE REACTIONS: Diuresis, insomnia, side effects attributed to caffeine.

**MURIA PUAMA (PTYCHOPETALUM OLACOIDES)** - The root and bark of this plant is highly regarded by Brazilians as a stimulant.

**TILIA SPECIES (TILIA TOMENTOSA)** - Used in Latin America to treat anxiety. Active ingredients are benzodiazepine receptor ligands. Animal studies show clear anxiolytic effect without sedation.

## MISCELLANEOUS HERBS



**CANNABIDIOL** - Animal studies show increased prolactin secretion and activity similar to atypical antipsychotics.

**JASMINE (JASMINUM OFFICINALE, CATALONIA JASMINE, COMMON JASMINE, POET'S JESSAMINE, ROYAL JASMINE)** - Used in many traditional medicines, over centuries, for its sedative and anaesthetic effects. Ethanolic extracts show sedative and anti-aggression effects in animals.

**MIKANIA CORDATA** - Used in many cultures for stress reduction. Controlled animal studies showed reduction in stress-induced decrease in norepinephrine and epinephrine, an increase in dopamine and normalization of serotonin.

### **References:**

1. Alprazolam/kava interaction. *Psychiatry Drug Alerts*: Feb 1997; 11(2):10-11.
2. Beau, George. *Chinese medicine*. New York, NY: Avon Books; 1972.
3. Castellanos, Julie, Nathan, Joseph, Rosenberg, Jack, *Drugs and herbs: do they mix*. *Drug Topics* May, 2000; 35.
4. Chen, John, *Recognition and prevention of herb-drug interaction*. {online } Available <http://www.acupuncture.com/Herbology/drug.htm>
5. Goulart, Frances Sheridan. *The abc's of botanicals: An interview with mark blumenthal*. *Alternative & Complimentary Therapies* 1997; 3(5):344-349.
6. *Diagnostic and statistical manual of mental disorders: DSM-IV*. 4th ed. Washington, DC: American Psychiatric Association; 1994: 327(341) 432-436.
7. Klemens, Jonathan. *Using herbs wisely: A basic primer*. Pennsylvania Health & Fitness. May, 2000.
8. Kloss, Jethro. *Back to eden*. New York. NY: Lancer Books: 1971.
9. Lad, Vasant. *Ayurveda*. Wilmot, WI: Lotus Light: 1990.
10. Lake, James L. *Psychotic medications from natural products: A review of promising research and recommendations*. *Alternative Therapies* 2000; 6(3):36-60.
11. Lu, Henry. C. *Chinese system of food cures: prevention & remedies*. New York. NY: Sterling Publishing Co. Inc.: 1986.
12. *Martindale - The extra pharmacopoeia*. Royal Pharm. Society, GB. Vol.84: 1995.
13. Mindell, Earl. *Quick & easy guide to better health*. New Canaan. CT: Keats Publishing. Inc.: 1982.
14. Mindell, Earl. *Herb bible*. New York, NY: Simon & Schuster/Fireside. 1992.
15. National Institute of Ayurvedic Medicine. *Medicinal plants*. {online} Available <http://niam.com/corp-web/acorus.htm>.
16. *Natural Medicine Comprehensive. Database*. (2006) {online } Available [http://www.naturaldatabase.com/uozodu450ornwdurhymlovv2\)/nd/Search.aspx?rn=3&li=1&st=1&cs=&s=ND&pt=100&id=330&fs=ND&searchid=618991](http://www.naturaldatabase.com/uozodu450ornwdurhymlovv2)/nd/Search.aspx?rn=3&li=1&st=1&cs=&s=ND&pt=100&id=330&fs=ND&searchid=618991).
17. Reid , Daniel. *The shambhala guide to traditional chinese medicine*. Boston. MA: Shambhala Publications, Inc.: 1996.
18. Schoenbart. Bill, *Chinese healing secrets*. Illinois, IL: Publications International Ltd: 1997.

---

© Copyright 2006 J Klemens

Jonathan Klemens is an Adjunct Assistant Professor, Pharmacist, and writer and the author of *Mountains and Rivers: Complementing Your Healthcare with Alternative Medicine* (ISBN 1403386722). His most recent work, "Quick Guide to Common Herb and Supplement Side Effects and Interactions," is used as a reference in retail pharmacies, medical centers, and schools of pharmacy. <http://www.writers.net/writers/22138> <http://jksamurai.googlepages.com/home>