St. John's Wort

Latin Name: *Hypericum perforatum*

Also known as: St. Johns Wort, Johns-Wort, St. John's Grass, Goatweed, Klamath Weed, Tipton Weed, Hardhay, Amber

Scientific Classification

There are 300 species in the Hypericum genus found worldwide.
None of the others live up to true St. John's Wort in terms of medicinal qualities.

Family: Clusiaceae – mangosteen family
Genus: Hypericum – St. John's Wort
Species: *H. perforatum* – common St. John's Wort

Influence on the Body	(PRINCIPAL ACTIONS are listed in CAPITAL LETTERS)
Blood and Circulatory System	heart • blood cleanser • anemia • internal bleeding • hemorrhage • reduces capillary fragility
Body System	insomnia • chronic fatigue syndrome (debilitating fatigue of six months or more) • ANTI-CATARRH (eliminates inflammation and congestion of mucous membranes)
Cancer	CANCER • ANTI-TUMOR
Digestive Tract	aromatic (contains volatile oils which aid digestion) • appetite • stomachache • stomach spasm • ULCERS • colic (severe abdominal pain) • diarrhea • dysentery (bowel inflammation) • WORMS
First Aid	bruises • burns • scrapes • wounds • septic (infected) wounds • leg ulcers • vulnerary (promotes healing of wounds by protecting against infection and stimulating cellular growth)
Infections and Immune System	anti-bacterial • anti-viral • herpes • human immunodeficiency virus (HIV) • acquired immunodeficiency syndrome (AIDS)
Inflammation	anti-inflammatory • gout • arthritis • rheumatism • cellulitis (inflammation of connective tissues just beneath skin surface) • lymphangitis (inflammation of lymph vessels)
Liver	gallbladder • jaundice • hepatitis (inflammation of the liver)

Lungs and Respiratory System	BRONCHITIS • LUNG CONGESTION • coughs • expectorant (loosens and removes phlegm from the respiratory tract)
Muscles	myalgia (muscular pain) • strains • pulled muscles or ligaments
Nervous System	NERVINE (improves nerve function) • nervous conditions • nervous tension • headaches • neurasthenia (lack of energy) • ANTI-DEPRESSANT • melancholy • sedative (calming, exerts soothing, tranquilizing effect) • anxiety • hysteria • palsy • antispasmodic • spasms • lower back spasms • sciatica • neuralgia (pain due to congestion or impingement of nerves) • BEDWETTING • peripheral neuropathy (nerve function disorders outside the spinal cord, with symptoms such as numbness, weakness, burning pain, or loss of reflexes) • multiple sclerosis (disease of the myelin sheath of the nerves marked by numbness, weakness, loss of muscle coordination, and problems with vision, speech, and bladder control) • nerve damage
Poisons	insect bites
Reproductive System	*Female:* • swollen breasts • REGULATES MENSTRUATION • PAINFUL MENSTRUATION • UTERINE CRAMPS • AFTER-BIRTH PAINS • menopause
Skin, Tissues & Hair	boils • external skin problems • shingles • varicose ulcers
Urinary Tract	URINARY DISORDERS • SUPPRESSED URINATION • astringent (tightens and constricts tissues, reduces discharge and swelling) • water retention • diuretic (increases urine flow)

Key Properties:

- *NERVINE – regulates the nervous system, relieves pain, quiets nerves and spasms, repairs damaged nerves, mildly sedative*
- *ANTI-DEPRESSANT – regulates balance of many neurotransmitters, calms anxiety, elevates mood*
- *ANTI-CATARRHAL – relieves congestion and soothes inflammation of mucous membranes of the lungs, digestive tract and genitourinary systems*
- *alterative – purifies and cleanses the blood of impurities and wastes*

Primarily affecting: *NERVOUS SYSTEM • MUCOUS MEMBRANES • BLOOD • UTERUS*

History

Its scientific name, Hypericum, is derived from the Greek words ‘hyper’ and ‘eikon’, meaning ‘to overcome an apparition,’ relating to ancient belief in its ability to ward off evil spirits. The species name, perforatum, is derived from the translucent dots that can be seen when the leaf is held up to the sun, making it look perforated.

First century Greek physicians Galen and Dioscorides both recommended St. John's Wort as a wound healing herb, a diuretic and a treatment for menstrual disorders.

‘Wort’ is the Old English word for plant, and according to legend, St. John's Wort carries St. John the Baptist’s name because of its use as a healing balm on battle wounds incurred during the crusades (1095-1099). The plant also tends to flower around the feast of St. John on June 24th, and it exudes a red color when bruised, seen as symbolic of his blood.

It was later believed during medieval times, that if an unwed woman gathered St. John's Wort on St. John’s Eve that yet had the dew on the leaves, she would find a husband, or if gathered by a barren wife, it would secure conception.

In the 16th century, Paracelsus (1493-1541), a Renaissance physician, botanist, alchemist, and astrologer, used the plant externally for treating wounds and painful contusions (bruises).

During the Middle Ages, St. John's Wort was popular for casting out demons (possibly an archaic description of treating emotional disorders). In the 1800’s, the herb was classified as a nervine and was used internally for mild depression, anxiety, hysteria, and insomnia. St. John's Wort was also recommended for pulmonary complaints, jaundice, diarrhea, dysentery, bleeding, worms, bladder ailments, and children’s bedwetting.

The fresh flowers were infused in teas, tinctures, and oils for treatment (especially indicated when nerve damage was present) of external ulcers, wounds, sores, cuts, and bruises.

Native Americans dried the plant and used it as a meal. They were also known to eat the fresh leaves for a soothing effect. The Cherokee used the plant to treat bloody diarrhea, intestinal complaints, fever, and suppressed menstruation. The crushed plant was sniffed to treat nosebleed, and it was

	rubbed on venereal sores. Roots of the plant were chewed and swallowed, or made into a poultice for snakebites. The Montagnais tribe used a plant decoction to treat coughs. The Iroquois used the plant to treat fevers and the root to enhance fertility. In 1793, St. John's Wort was collected in Pennsylvania where it was first recorded as a specimen in the United States. American eclectic physicians were doctors who practiced with a philosophy of 'alignment with nature,' at the turn of the 20th century. They promoted the use of St. John's Wort for the healing of wounds and lacerations that involved nerve damage. Eclectics also used it as a diuretic, astringent, nervine, and mild sedative. St. John's Wort became more popular as a treatment for depression in the early 1900's. As pharmaceutical antidepressants became available, German researchers began looking to herbs for similar properties. Today, St. John's Wort is one of the best-documented herbal treatments for depression, with scientific research and testing approaching that of many prescription drugs.
Attributes	**Key Components: (including, but not limited to)**
Nutrients	Choline (an essential nutrient, usually grouped with the Vitamin B complex) Hypericin (a red pigment that exudes from the flower petals when crushed) • Hyperforin (a bitter, found in the leaves, that stimulates digestive juices and improves appetite) • Pseudo-hypericin • Pectin • Tannins • Flavonoids • Alkaloids The action of the principle active ingredients of St. John's Wort is not precisely known. There seems to be a synergistic effect as the components work together. Hypericin appears to have antidepressant and antiviral properties. Studies show hypericin and pseudo-hypericin have potent antiretroviral activity, without serious side effects. Hyperforin has antidepressant, antibiotic and anticarcinogenic qualities.
Nervine and Anti-inflammatory	St. John's Wort has a deep-seated nervine effect. It helps restore damaged nerve tissue, can relieve nerve pain, calms the system, and has a mild sedative effect. St. John's Wort is also used to improve the quality of life for individuals suffering from chronic diseases, including arthritis, multiple

sclerosis, neurasthenia, and chronic fatigue syndrome.

Externally, the herb is invaluable for reducing inflammation and the pain of scrapes, bruises, strains, burns, and other trauma. St. John's Wort may be applied as a liniment salve or poultice over the spine for relief of nerve disorders that are related to the spine, sciatica, neuralgia, and rheumatic pains. St. John's Wort is specific for deep, low pain of the coccyx (vertebrae at the base of the spine).

St. John's Wort relieves chronic nerve pains such as peripheral neuropathy. The herb is very useful for treating athletic injuries with nerve damage and/or pulled muscles and ligaments.

Wounds

St. John's Wort is especially useful in cases of dirty, septic wounds. It has been proven effective in cases of putrid leg ulcers that resist healing. The herb cleanses out infection without destroying healthy tissue. It helps reduce the inflammation in septic sores, boils, cellulitis, and lymphangitis.

In Germany, St. John's Wort is approved as an external preparation for the treatment of sharp or abrasive wounds, myalgias (muscles pains), and first-degree burns.

Anti-depressant

St. John's Wort is prescribed in Germany for mild to moderate depression more often than prescription medications. Typical symptoms of depression include poor stress tolerance, difficulty concentrating, depressed mood, anxiety, nervous tension, irritability, lack of energy, sleep problems, and appetite disturbance.

St. John's Wort can be used to help alleviate chronic insomnia and anxiety when they are related to depression. It may be effective in relieving seasonal affective disorder (SAD) as well.

Controlled clinical trials of St. John's Wort conclude that it is significantly more effective than placebo and is found to be generally as effective (with fewer adverse side-effects) as standard anti-depressant medications. Recent scientific findings support the use of St. John's Wort as a safe and effective treatment of major depression. [1]

A 1993 German study compared St. John's Wort to placebo. An incredible 80 percent of the participants had significant improvement based on a standardized set of questions

regarding depression, compared to only 26 percent of the placebo group.

A placebo controlled, double-blind, study of 105 patients diagnosed with mild to moderate depression was conducted more recently. Patients who took St. John's Wort felt significant improvement in depressive mood indicators (feelings of sadness, hopelessness, helplessness, uselessness, fear, and difficult or disturbed sleep) with no significant side effects being observed.

Cumulative research indicates that St. John's Wort is effective in at least 55 percent of the cases studied. As with other antidepressants, the full benefit takes approximately 4-6 weeks to develop, sometimes taking up to 3 months for complete effect.

How It Is Believed To Work:
The latest research suggests that St. John's Wort blocks the reabsorption (re-uptake) of the neurotransmitter serotonin. This leaves more serotonin available in the brain. Increased serotonin levels enhance neurotransmission (sending of nerve impulses). This process categorizes St. John's Wort as a selective serotonin re-uptake inhibitor (SSRI).

Research has found that abnormalities in neurotransmitter activity affect mood and behavior. Both hypericin and hyperforin (found in the blossoms and leaves of St. John's Wort) have qualities that regulate brain levels of important compounds such as:

Serotonin – regulates mood, appetite, muscle contraction, sleep, and some cognitive functions including memory and learning

Melatonin – affects the regulation of the circadian rhythms, including sleep cycles

Dopamine – affects heart rate, blood pressure, cognition, attention, learning, motivation and reward, voluntary movement, sleep, mood, and feelings of pleasure

Norepinephrine – a stress hormone

Monoamine-oxidases – affects levels of certain neurotransmitters and their by-products

	Interleukins – signals proteins used primarily in the immune system Overall, the effect of St. John's Wort on neuro-transmission is to help reduce symptoms of depression, uplift mood, and calm anxiety, distress, mental burnout, and nervous depression.
Blood Flow	St. John's Wort is an excellent blood cleanser and purifier. It is valuable for treating internal bleeding and helps reduce capillary fragility. The herb contains an alkaloid that is a heart and artery stimulant. Hypericin increases blood flow to stressed tissues.
Anti-microbial	Modern clinical research supports St. John's Wort's use as an antibacterial, antifungal, antiviral, and anti-inflammatory compound. Hypericin is used for viral infections such as hepatitis, HIV, and herpes simplex.
Congestion	St. John's Wort is used for persistent mucous catarrh (congestion and inflammation) in the lungs, bowels and urinary tract. It helps relieve phlegm build-up and obstructions in the chest and is used as an expectorant to loosen and expel accumulated mucus. It has been very effective in relieving bronchitis and contributes to the healing of all pulmonary complaints.
Digestive Tract	The herb tea is effective for digestive disorders. It has been used to treat stomachache, stomach spasms, dysentery, colic, and diarrhea. The tea, with a small amount of aloe powder, helps cleanse the liver. Whole flakes of morbid matter can wash away in the urine.
Urinary Tract (UT)	St. John's Wort increases the flow of urine and has a toning-tightening-astringent quality on distressed tissues. It strengthens urinary tract (UT) organs and helps the body in cases of urinary suppression and chronic UT and bladder disorders.
Women	St. John's Wort is specific for chronic uterine disorders and enhances uterine tone. Along with proper diet, it can control uterine cramping and help ease irregular and painful menstruation. It helps alleviate afterbirth pain and is often used when there are menopausal changes triggering irritability and anxiety.
Cancer	Hypericin has shown potent antitumor activity, helping the body reduce and control tumor growth.

Herb Parts Used	The herb, tops, and flowers are used medicinally. The leaf contains active flavonoids, which augment the activity of the hypericins found in the flowers and buds.
Preparations and Remedies	*Fresh:* Rub crushed petals on cold sores and fever blisters.
Infusions	*St. John's Wort Tea:* Pour 1 cup boiling water over 2 teaspoons fresh, flowering tops. Steep for 10 minutes and strain. Drink 1 cup, 2-3 times a day for colds or flu. The tea is also a good blood purifier and can be used for boils, diarrhea, dysentery, jaundice, uterine cramping, uterine pain, suppressed urine, bedwetting, insomnia, and other nervous conditions. *Remedy for bedwetting:* A half teaspoon each of leaves and flowers steeped in four to eight ounces boiling water for one hour. Take every night before going to bed.
Oil	*Hypericum Oil:* It is best to use flowers and herbs fresh, as hypericin may degrade when dried. The fresh herb should be thoroughly cut, bruised or mashed prior to combining with extra virgin olive oil. Including the flower stems serves the function of allowing the olive oil to flow around the mashed flowers and leaves, which otherwise tend to clump. Combine one part (by volume) of the fresh herb and flowers to three parts (by volume) of extra virgin olive oil. As it pulls out the reddish resin of hypericum from the blossoms, the oil will turn blood red in color. *Alternative:* Take about one cupful of the fresh flowers and add a sufficient quantity of extra virgin olive oil to just cover the flowers. Solar maceration (soaking an herb in oil and exposing it to sunlight for a few hours the first three days, to soften and release constituents) of the oily mixture improves extraction of certain properties, although maceration in the dark is also effective. Maceration must be continued for two full weeks. Shaking the container each day will enhance the extraction process. After two weeks, the infused oil should be pressed, strained, and stored in a closed container in a cool, dark location for up to one year.

Salves	Apply the infused oil topically to hasten the healing of burns, wounds, swellings, bruises, sprains, swollen breasts, hard tumors, ulcers, varicose ulcers, hemorrhoids, and rheumatic ailments. Hypericum oil may also be taken internally for indigestion and gastric ulcers. Take one teaspoon, two to three times daily. The oil may be further processed into a salve or cream, which retain the same effects. Apply liberally throughout the day to hemorrhoids and slow-healing wounds.
Safety	In the extensive German experience with St. John's Wort being prescribed as a treatment for depression, there have been no published reports of serious adverse consequences from taking the herb with normal dosages. Concurrent use of St. John's Wort preparations with prescription drugs should be discussed with your health care professional. It may alter the effectiveness of certain medications, including drugs taken for depression, heart transplants, HIV, blood thinners, and some anesthetics. St. John's Wort can be very effective in helping wean off chemical medications used to treat depression. If needed, find a health care provider who can assist you. It is recommended by some to not take St. John's Wort 21 days before surgery. It is reported that overdose of the herb may cause photosensitivity, generally characterized by an increased optical sensitivity to sunlight (and radiation from tanning salons) and an increased tendency for the skin to burn. To my knowledge there have been no studies on humans using the whole plant. The only studies I know of used to substantiate this caution have been done with cattle. Areas treated with St. John's Wort infused oil should be kept covered from the sun, due to an increased risk of burning or blistering. A rare side effect of permanent darkening of skin pigmentation may result from solar exposure after applying the oil.
Plant Profile	*Natural Habitat:*

St. John's Wort is indigenous to all of Europe, Western Asia, and Northern Africa. It was introduced to Eastern Asia, Australia, New Zealand, North and South America, and it is cultivated elsewhere.

The herb grows wild in unused ground, woods, hedges, roadsides, and meadows. St. John's Wort has been reduced to one percent of its original population in the Pacific United States by ranchers who consider it a bothersome weed. The plant is particularly aggressive in range lands with dry summers.

Description

St. John's Wort is an upright, perennial (grows back in the spring from a persistent rootstock), with many branched stalks that grow to about two feet high. The plant has a hard and woody root, which abides in the ground for many years, shooting up new growth every year.

St. John's Wort has numerous small, lemon-scented flowers and each bright-yellow petal has black glandular dots on the outer rim. The five petaled flowers have long, feathery stamens clustered at the center. One way to identify St. John's Wort is to pinch the leaves or blossoms and they will turn red due to the release of hypericin (and stains the fingers blue-violet).

After flowering June through September, small round heads form which contain tiny blackish seeds smelling like resin. The fruit is a three-celled capsule. The seeds ripen in August.

Slender, oblong leaves grow in opposite pairs. The deep green leaves appear perforated when held up to the light. These ‘holes’ are actually transparent oil glands. The entire plant smells faintly of turpentine or balsam. Its taste is bitter, resinous, and somewhat astringent.

Growing St. John's Wort

Saint John's Wort loves sunny, warm locations, but will grow in partial shade. The plant likes well-drained soil and is perfectly cold hardy. It does not grow well in waterlogged soil, but does tolerate dryness, making additional irrigation unnecessary in most cases. St. John's Wort readily self-sows once it is established.

Planting

The growth rate of the seeds is typically 30 percent the first year. A considerable amount of the remaining hard seed will reside for years in the soil and finally germinate at a later date. Direct-seeding of such small seeds is tricky. Green-

house propagation of seedlings works somewhat better with this plant.

Between March and May, sow verified St. John's Wort seeds thinly in a small box or seedling tray filled with potting soil. Cover the seeds with a thin layer of soil. Mist thoroughly with water and keep seeds moist. They will germinate in approximately 14-30 days.

After the seedlings have reached a height of 1-2 inches, transplant them in clusters of 3 into small pots filled with growing soil. Place the potted plants in sunny locations during the summer and make sure they receive sufficient water.

In early fall, set the plants out about 12 inches apart in well-drained soil. Cover the base of the plants with a light mulch after the first frost. They will bloom the next summer.

Harvesting

Harvest the plant between June and August, traditionally around June 24th (St. John's Day), near the time of the summer solstice. Never dig up wild plants because it could harm the balance of the natural habitat.

Take care while harvesting and handling the fresh herb, as the hypericin oil is readily absorbed through the skin. Using gloves is recommended. While harvesting in the hot sun, be careful not to wipe the delicate tissues around the eyes or brow with hypericin-laden hands. These areas are particularly sensitive. After handling large quantities of fresh St. John's Wort, make sure that all exposed skin surfaces are thoroughly washed with soap and water.

Cut back the stems of cultivated plants to just above ground level and hang them in a dark place with the flower heads down. Though it is possible to harvest the upper plant from June through August, it contains the highest active constituents at the end of June, just after flowering.
St. John's Wort should be dried quickly (in warm weather or in a drying room), in order to preserve its oils. Gather seeds (a thimbleful of seeds should suffice) in the fall. Store seeds in a dark, dry place during the winter, to sow in March.