

Major Therapeutic Activity of St John's Wort Extract

Botanical Name: *Hypericum perforatum*

Family: Guttiferae

Part Used: Aerial parts

Traditional Use

In western herbal medicine St John's Wort is considered primarily for the nervous system, (regarded as a sedative and nervine) and particularly indicated for nervous afflictions (including anxiety and depression), disorders of the spine including neuralgia, sciatica and wounds where nerves are involved. The *British Herbal Pharmacopoeia* 1983 lists St John's Wort with a specific indication of menopausal neurosis. It was also used to treat urinary and gastrointestinal problems. St John's Wort also has a history of use in topical application.¹⁻³

Constituents

The main constituents of St John's Wort include naphthodianthrone (including hypericin and pseudohypericin), flavonoids, phloroglucinols (including hyperforin), phenylpropanoids, oligomeric procyanidins and essential oil.⁴ The hypericins are responsible for the red colour of St John's Wort extracts.

Clinical Studies

A 2005 Cochrane meta-analysis suggests that standardised extracts of St John's Wort may be effective for treating **mild to moderate depression**. They demonstrate greater efficacy than placebo and similar efficacy as standard antidepressants for this condition. The most commonly prescribed dosage was standardised extract corresponding to 3.8–4.5 g of dried herb. Side effects are usually minor and uncommon. Comparing St John's Wort extracts with selective serotonin reuptake inhibitors (SSRIs), there was a trend towards a lower probability of dropping out due to adverse effects and reporting of adverse effects. Compared to older antidepressants patients taking St John's Wort were less likely to drop out due to adverse effects and to report adverse effects.⁵

An earlier meta-analysis was performed on three randomised, double-blind, placebo-controlled trials (1998–2001) to investigate the therapeutics of St John's Wort. It

was found to be particularly effective in treating the core symptoms of mild to moderate depression (such as depressed mood, guilt, suicide, gastrointestinal symptoms) with additional beneficial effects on accompanying depression-related anxiety. St John's Wort accelerated the recovery in a rather general manner by influencing all investigated signs and symptoms of the disease, and thus had a similar therapeutic profile as SSRIs.⁶

Other clinical activity for St John's Wort has been demonstrated and is summarised below. The most common daily dosage prescribed was 900 mg of standardised extract which probably corresponded to approximately 5 g of dried herb. The herpes trials used this dosage for prevention but it was doubled during acute outbreaks.

St John's Wort:

- was effective for **somatoform disorders** (2 x randomised, double-blind, placebo-controlled trials);^{7,8}
- reduced depression scale scores in patients with **seasonal affective disorder** when combined with light therapy (2 x single blind, comparative trials);^{9,10}
- improved **fatigue** in patients, particularly those subsequently assessed as depressed (uncontrolled, pilot trial);¹¹
- enhanced mood in **athletes** (placebo-controlled, crossover trial);¹²
- was beneficial for **generalised anxiety disorder** (6 cases);^{13,14}
- improved symptoms of **premenstrual dysphoric disorder** (1 case);¹⁵
- improved **menopausal symptoms** (observational trial);¹⁶
- decreased symptom severity and scores, and showed a trend towards superior effect for anxiety-related symptoms in **premenstrual tension** (1x pilot, uncontrolled trial; 1 x randomised, double-blind, placebo-controlled trial);^{17,18}
- reduced the total symptom score and herpetic episodes in patients with recurrent **orofacial herpes** and **genital herpes** (2 x randomised, double-blind, placebo-controlled trials);¹⁹
- produced a trend of lower total pain in **polyneuropathy** (randomised, double-blind, placebo-controlled, crossover trial).²⁰

Antiviral Activity

In vitro research conducted in the early 1990s indicated that the hypericins had activity against enveloped viruses. The antiviral activity was enhanced by exposure to light.²¹ Activity against enveloped viruses has been demonstrated clinically, for example in HIV infection (administration of St John's Wort extract)²² and herpes (St John's Wort extract, *see above*),¹⁹ but not for chronic hepatitis C infection (hypericin).²³

Actions

Nervine, mild antidepressant, possibly antiviral (against enveloped viruses), vulnerary.

Indications

- Mild to moderate depression and somatoform disorders, especially when side effects from orthodox antidepressant drugs are unacceptable.
- Nervous tension, anxiety, stress, neuralgia.
- Premenstrual tension, menopause.
- As an adjunct to light therapy for seasonal affective disorder.
- For viral infections including facial and genital herpes, chicken pox, shingles, glandular fever, cytomegalovirus and Epstein-Barr virus infections. Works best in conjunction with immune supportive herbs such as Echinacea.

Cautions and Contraindications

St John's Wort may cause hyperaesthesia in some sensitive individuals especially when combined with a high exposure to sunlight or artificial UVA light.

St John's Wort is contraindicated in those taking indinavir (HIV protease inhibitor), cyclosporin (immunosuppressive agent) and warfarin. Caution is advised for patients taking other HIV protease inhibitors, non-nucleoside reverse transcriptase inhibitors, theophylline, digoxin, anticonvulsants, oral contraceptives, selective serotonin-reuptake inhibitors and triptans (migraine medication).

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