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HERBCLIP

FILE: · Stinging Nettle (*Urtica dioica*)
· Nettle (*Urtica dioica*)
· Benign Prostatic Hyperplasia (BPH)

DATE: February 22, 1999

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RE: **Review of Stinging Nettle**

Yarnell, Eric. Stinging Nettle: A Modern View of an Ancient Healing Plant. *Alternative and Complementary Therapies*, June 1998, pp. 180-186.

This article explains the folk medicinal uses of stinging nettle (*Urtica dioica*) and modern research that supports some of these applications. The herb is native to Eurasia but has spread to most parts of the world, including North America. Stinging nettle is often used medicinally interchangeably with dog or small nettle (*U. urens*), but should not be confused with white or dead nettle (*Lamium album*) which has different therapeutic properties.

Stinging nettle is named for the fine silica-rich hairs that cover its stems and leaves and break off when touched, injecting irritating chemicals into the skin. The hairs are destroyed by minimal processing and cooking. Nettle has been used for centuries throughout its native range as food, fiber and medicine. In the 1600s, Culpeper recommended boiled or juiced nettle roots or leaves for wheezing, shortness of breath and throat inflammations; nettle leaf was also used in Europe as a vermifuge, to stimulate menses or urination, heal infected sores, shrink nasal polyps, and staunch bleeding, and for kidney disease, gout, sciatica and arthritis. The seed was said to have diuretic and anthelmintic properties. At the turn of this century, American eclectic physicians used nettle to treat diarrhea, hemorrhoids, bleeding, nephritis, eczema, chronic colon disease and urinary gravel.

This author notes that "the main active [therapeutic] constituents in nettle have yet to be identified," although the beta-sitosterol and other plant sterols in nettle seem to reduce the symptoms of benign prostatic hyperplasia. The lectin *U. dioica* agglutinin (UDA) has also been associated with this effect; it blocks the binding of epidermal growth factor to its receptor in the prostate. UDA occurs in all parts of nettle, but especially the root. UDA induces cytokine production through a specific pattern of T-lymphocyte activity and seems to have anti-viral qualities; in vitro experiments with human cells show it blocking the actions of HIV, cytomegalovirus, respiratory syncytial virus and influenza A virus. Another

nettle constituent, (10-E, 12-Z)-9-hydroxy-10, 12-octadecadienic acid, inhibits the enzyme aromatase, which converts testosterone into estradiol and has been implicated in the pathogenesis of BPH. Also, nettle lignans may block the binding of sex-hormone binding globulin to testosterone or to the testosterone receptor. The author describes four double-blind clinical studies of nettle for BPH. In one study, 72 men took 1200 mg daily of a 5:1 nettle root extract; a second group of 72 men took half that dose. Both groups showed “significant improvement” after 28 and 56 days. A second study showed nettle was effective in combination with alpha-blockers, as did a third study comparing nettle with placebo. The fourth study comparing a combination of *Serenoa repens* and nettle (in an unspecified dose) with finasteride (Proscar[®]) followed 543 men for 48 weeks. Both groups showed a similar degree of improvement, although the finasteride group suffered more serious adverse effects, including headache and erectile dysfunction.

Nettle polysaccharides appear to stimulate tumor necrosis factor and T-lymphocyte activity, aiding immune system response. Stinging nettle is demonstrably effective when used in a manner similar to bee sting therapy as a topical treatment for arthritis and rheumatism. It is not known which of the compounds contained in the stinging hairs are responsible for this action; they include formic acid, acetic acid, butyric acid, acetylcholine, 5-hydroxytryptamine, serotonin, histamine, leukotrienes, and a resin.

Animal studies suggest nettle stimulates uterine contractions and is therefore unsafe in pregnancy, but this author notes that clinical “experience” contradicts these findings, adding that this “shows the relative lack of utility of such studies.” He considers nettle a “completely safe” galactagogue (promoter of milk production). Nettle is also a traditional diabetes therapy, although two animal studies found that nettle had a slightly hyperglycemic effect. The author comments, “No human data (from clinical trials or from empirical sources) support this finding and further research is needed before nettles can be suggested for diabetic patients.” Nettle is “completely nontoxic” and very safe; the author also recommends its consumption for its excellent nutritional profile.

This author recommends the following dosages for nettle: 1 teaspoon of nettle juice in 4 to 6 oz. water, three times daily (particularly appropriate as a diuretic); ½-1 teaspoon root or leaf tincture three times per day; three cups daily of a tea made with 2-3 teaspoons dried herb steeped 10 to 15 minutes in a pint of boiling hot water; or, for BPH, 2-3 teaspoons of the root per cup of tea. One or two 240-300 mg freeze-dried nettle capsules should be taken three times per day. —*Betsy Levy*

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