

## Therapeutic uses for stinging nettle

Stinging nettle is a plant that is native to Eurasia, but is now found throughout the world.<sup>1</sup> *Urtica dioica* owes its common name to the hairs found on the whole plant, which cause a stinging sensation upon contact with the skin. The parts of the plant used for medicinal purposes are the seeds, leaves, and roots.<sup>1,2</sup>

### Why do people use it?

The leaves are used for the treatment of rheumatic conditions, seasonal allergies, and for the prevention and treatment of kidney stones.<sup>1,3</sup> People also use stinging nettle for its diuretic effect, hemostatic activity, and its blood glucose-lowering properties.<sup>1,3</sup> The root is used for the control of symptoms associated with stage 1 and 2 benign prostatic hypertrophy (BPH).<sup>1,2,4,5</sup>

### How does it work?

Stinging nettle has many constituents that help explain some of its medicinal properties. The roots contain tannins, coumarin, triterpenes, and sterols, including beta-sitosterol, a compound known to improve symptoms associated with BPH.<sup>2,6</sup> Stinging nettle may prevent the sex hormone-binding globulin (SHBG) from binding to prostate cells.<sup>6,7</sup>

The aerial parts of stinging nettle have flavonoids, chlorophyll, triterpenes, sterols, vitamins, and minerals.<sup>1-3</sup> Urticin, a compound that causes a decrease in blood glucose in rats, is also found in stinging nettle.<sup>1</sup> The herb also contains betaine and serotonin, two agents shown to cause uterine activity in rats.

Histamine, choline, acetylcholine, and serotonin have been isolated



#### BOTTOM LINE

The root of stinging nettle has some activity for the symptomatic treatment of benign prostatic hypertrophy. However, the evidence is not as strong as with pygeum or saw palmetto. Please note that stinging nettle is often used in combination with other herbs for BPH. People should not start stinging nettle for the symptomatic treatment of BPH before consulting first with a physician to confirm the diagnosis and to rule out malignancy.

from the hairs on the surface of the plant.<sup>1,3</sup>

### What is the evidence?

Most of the clinical evidence for the use of stinging nettle comes from trials evaluating the herb for the symptomatic treatment of BPH. Several published studies indicate that stinging nettle improves BPH symptoms such as urine flow and urinary volume.<sup>2,6</sup> However, the data seem to indicate that benefits are more substantial when using a combination of stinging nettle and other herbs known to improve BPH symptoms, such as pygeum or saw palmetto.<sup>8</sup> One recent trial did not find an improvement in BPH symptoms when stinging nettle was used alone for six months.<sup>5</sup>



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One study comparing nonsteroidal anti-inflammatory drugs (NSAIDs) alone to NSAIDs in association with stinging nettle concluded that the association was superior to the NSAID alone in the treatment of acute arthritis.<sup>2</sup>

### Side effects

Mild gastrointestinal complaints are the only side effects reported with stinging nettle when used at usual doses.<sup>1,2,4,5</sup> Allergic reactions have been reported and one case of severe and persistent tongue swelling was documented when the patient applied stinging nettle leaves directly to her tongue.<sup>5,9</sup> A stinging sensation may occur when the skin is exposed to the hairs present on the aerial parts of the plant.<sup>1,2</sup>

### Drug interactions

No drug interactions have been reported. Theoretical considerations include a potential for alteration of blood glucose in patients taking hypoglycemic agents, and a further decrease in blood pressure due to the hypotensive effect of stinging nettle.<sup>2,3</sup>

Vitamin K is present in the plant and can therefore potentially decrease the anticoagulant effect of warfarin.<sup>3</sup>

### Precautions and contraindications

Stinging nettle is contraindicated during pregnancy due to its uterine activity.<sup>1,3,10</sup> There are no data regarding safety during breastfeeding.

When using the root for BPH it is

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important to remember that although stinging nettle may decrease symptoms it does not reduce the size of the prostate.<sup>4</sup> Physician visits at regular intervals are recommended to monitor progression of symptoms.

## Dose

The dose of stinging nettle root for the treatment of BPH is usually 4 to 6 g daily, divided into three doses.<sup>2,4</sup> When using the seeds or the leaves, people use 6 to 12 g daily, in three doses.<sup>1,2</sup> Those with allergic rhinitis typically take 300 mg three times daily, and one reference recommends 9 g daily for the control of the symptoms associated with osteoarthritis.<sup>3</sup> ■

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