

# HYDRANGEA

## *Hydrangea arborescens L.*

### *Family*

Hydrangeaceae.

### *Parts Used*

Root.

### *Description*

This deciduous shrubby herb can reach up to three metres in height and is native to the United States of America but related species are widely cultivated as ornamental plants throughout the world. The name *Hydrangea* is derived from a Greek word for 'water vessel' – referring to the plants fondness for marshes and aquatic environments. *Hydrangea arborescens* is also known as wild hydrangea, smooth hydrangea and sevenbark. The latter name

refers to the tendency of the stem bark to peel off in successive thin layers resulting in different stem colours. The plant has large bright green, oval shaped opposite leaves with serrated edges and fine hairs. While the related cultivars are known for their bright, showy flowers, wild hydrangea has a more subdued green-white flower inflorescence, displayed from later spring to early summer. The underground roots and rhizomes are used medicinally.

### *Traditional Use*

Hydrangea was used by Native American Indians for kidney and bladder stones. Hydrangea is reported to help dissolve and promote the expulsion of stones and gravel.<sup>1</sup> Early reports of doctors using the herb found that the herb effectively removed gravel and



relieved the pain of urinary colic.<sup>2</sup> The herb was given for many other conditions that affect the genitourinary system, including cystitis and urethritis. Traditionally used for kidney and bladder stones and gravel, cystitis, bladder inflammation and urethritis.

### *Constituents*

Glycoside (hydrangin), hydronol, hydrangeaic acid, flavonoids (quercetin, rutin) saponin, essential oil (kaempferol), minerals (calcium, iron, magnesium, manganese, phosphorus, potassium, selenium and zinc), resins, gum, starch.

### *Actions*

Diuretic, antilithic, cathartic, urinary tract stimulant.

### *Pharmacological Activity*

While there have been no scientific studies carried out on wild hydrangea, there have been medicinal effects noted on related species of hydrangea – such as hepato-protective, anti-malarial and anti-diabetic effects.<sup>3,4,5,6</sup>

### *Indications*

- Kidney and bladder stones, gravel
- Cystitis
- Urinary tract inflammation

### *Energetics*

Bitter, cooling, neutral.

### *Use in Pregnancy*

Not traditionally used or recommended in pregnancy.

### *Contraindications*

None known at therapeutic dose levels.

### *Drug Interactions*

Caution with lithium.

### *Administration and Dosage*

Liquid Extract: 1:1

Alcohol: 25%

Weekly Dosage: 20 to 80mL

## References

1. Grieve, MA Modern Herbal, Penguin, London 1980, p. 424-5.
2. Butler, SW MD, Hydrangea Arborescens, a New Remedy in Lithiasis, Boston Med Surg J Nov, 1850; 43:314-316. DOI: 10.1056/NEJM185011200431602
3. Nakagiri R, Hashizume E, Kayahashi S, Suppression by Hydrangeae Dulcis Folium of D-galactosamine-induced liver injury in vitro and *in vivo*. Biosci Biotechnol Biochem. 2003 Dec;67(12):2641-3.
4. Ishih A, Ikeya C, Yanoh M, A potent antimalarial activity of Hydrangea macrophylla var. Otaksa leaf extract against *Plasmodium yoelii* 17XL in mice. Parasitol Int. 2001 Mar;50(1):33-9.
5. Kim HK, Kim MJ, Lyu ES, Shin DH. Improvement of diabetic complication by hydrangea dulcis folium in streptozotocin-induced diabetic rats. Biol Pharm Bull. 2009 Jan;32(1):153-6.
6. Zhang H, Matsuda H, Kumahara A, New type of anti-diabetic compounds from the processed leaves of *Hydrangea macrophylla* var. *thunbergii* (Hydrangeae Dulcis Folium). Bioorg Med Chem Lett. 2007 Sep 1;17(17):4972-6.