

Gravel Root

Species (Family)

Eupatorium purpureum L. (Asteraceae/Compositae)

Synonym(s)

Joe-Pye Weed, Kydney Root, Purple Boneset, Queen of the Meadow

Part(s) Used

Rhizome, root

Pharmacopoeial and Other Monographs

BHP 1983^(G7)

Legal Category (Licensed Products)

GSL^(G37)

Constituents^(G20,G40,G42,G48,G49,G64)

Little information is available on the chemistry of gravel root. It is stated to contain euparin (a benzofuran compound), eupatorin (a flavonoid), resin and volatile oil.

Other plant parts The herb is reported to contain echinatine, an unsaturated pyrrolizidine alkaloid.⁽¹⁾

Food Use

Gravel root is not used in foods.

Herbal Use

Gravel root is stated to possess antilithic, diuretic and antirheumatic properties. Traditionally, it has been used for urinary calculus, cystitis, dysuria, urethritis, prostatitis, rheumatism, gout, and specifically for renal or vesicular calculi.^(G7,G64)

Dosage

Dried rhizome/root 2–4 g or by decoction three times daily.^(G7)

Liquid extract 2–4 mL (1:1 in 25% alcohol) three times daily.^(G7)

Tincture 1–2 mL (1:5 in 40% alcohol) three times daily.^(G7)

Pharmacological Actions

None documented.

Side-effects, Toxicity^(G20)

None documented for gravel root although pyrrolizidine alkaloids are constituents of many species of *Eupatorium*.^(1,G20) Pyrrolizidine alkaloids with an unsaturated pyrrolizidine nucleus are reported to be hepatotoxic in both animals and humans (*see Comfrey*). An unsaturated pyrrolizidine alkaloid, echinatine, has been reported for the aerial parts of gravel root.

Contra-indications, Warnings

None documented.

Pregnancy and lactation The safety of gravel root has not been established. In view of the lack of phytochemical, pharmacological and toxicological information the use of gravel root during pregnancy and lactation should be avoided.

Pharmaceutical Comment

The chemistry of gravel root is poorly studied and no scientific evidence was located to justify the herbal uses. Excessive use of gravel root should be avoided.

References

See also General References G7, G20, G31, G37, G40, G42, G48, G49 and G64.

- 1 *Pyrrolizidine Alkaloids. Environmental Health Criteria 80*. Geneva: WHO, 1988.