Kidney Drainage

Stock #3168-4 (2 fl. oz.)

Kidney Drainage is an alcohol-free liquid herbal extract designed to promote kidney health and function, thereby facilitating the overall health of the urinary system. Kidney Drainage contains herbs that assist kidney function by increasing urinary excretion of wastes and excess fluids. Kidney Drainage also contains herbs that possess mild antibacterial and anti-inflammatory effects. Unlike many synthetic diuretics that stimulate excessive electrolyte secretion in the urine, Kidney Drainage provides herbal "aquaretics," which increase urinary volume without promoting the loss of potassium, sodium or other electrolytes.[1]

The kidneys are the main organs that regulate the body's internal homeostasis. They are responsible for regulating the composition of the body fluids, including the balance of water, electrolytes and acidity. The kidneys are essential for filtering waste products from the blood and are also involved in the production of renin, a hormone that plays a part in the regulation of blood pressure. In addition, the kidneys control the production of red blood cells. Approximately 200 quarts of blood are filtered by the kidneys daily, in order to rid the body of excess water and waste products, including normal organic material from the breakdown of cells, as well as proteins, excess food by-products, various minerals, and cellular waste excretions.[2-4]

Kidney Drainage contains pure extracts of asparagus tops, plantain leaves, juniper berries and goldenrod herb in a vegetable glycerin base.

Asparagus contains the diuretic asparagine and has been proven in animal studies to promote the elimination of water through the kidneys. Asparagus is approved in Germany for the treatment of urinary tract infections—asparagus may work by increasing urinary volume, which helps flush bacteria out of the urinary tract. Asparagus is highly nutritious and is a natural source of folic acid, which is essential for the production of red blood cells. Asparagus is also a rich source of glutathione, a potent antioxidant that is concentrated in the liver and kidneys. Furthermore, asparagus contains high amounts of the electrolytes potassium and sodium.[5-10]

Plantain has traditionally been used for the treatment of cystitis—an infection of the bladder, which causes pain or burning when urinating and the constant sensation of needing to urinate. Animal research has confirmed that plantain possesses anti-inflammatory and diuretic activity, providing support for the herb's historical use. A preliminary Brazilian study found that plantain significantly inhibited inflammation and relieved pain in animals given an oral extract. Plantain's soothing effect on inflammation and irritation may be due, in part, to its mucilage content. Additional research has confirmed that plantain also exhibits weak antibiotic, antioxidant, immuno-modulating and wound-healing actions. Furthermore, the German Commission E reports that plantain provides astringent and antibacterial activity. Plantain contains high amounts of electrolytes as potassium salts. Excessive doses of plantain may exert laxative and hypotensive (blood pressure-lowering) effects; thus, excessive use of plantain should be avoided during pregnancy. Plaintain is not recommended for individuals with a history of intestinal obstruction.[4,5,11-15]

Juniper has traditionally been used as a diuretic and urinary antiseptic for the treatment of cystitis and kidney and urinary tract infections. The diuretic activity of juniper has been attributed to the volatile oil component found in the berries, namely terpinen-4-ol. The diuretic action of terpinen-4-ol appears to increase the rate of kidney filtration without increasing the loss of electrolytes. The increase in urinary volume effected by juniper may help explain some of its historical uses, since increasing the amount of water filtered through the kidneys would help "flush out" bacteria that can cause urinary tract infections. In addition, juniper has demonstrated anti-inflammatory, anti-rheumatic, antiseptic and mild antimicrobial activities in animal studies, which further supports the herb's uses for kidney and urinary inflammation and infection. Juniper is a rich source of the electrolyte potassium. Juniper is contraindicated during pregnancy, due to its abortifacient activities in animal studies. Juniper is also contraindicated in patients with existing renal (kidney) disease. Furthermore, juniper may potentiate existing diuretic therapies and should be used with caution by diabetic patients, since juniper berries have shown a hypoglycemic (blood sugar-lowering) effect in animal studies.[4,5,11,13,15-19]

Goldenrod is widely-used in Europe in the treatment of bladder infections and urinary tract inflammation/irritation, as well as to prevent formation and facilitate elimination of bladder and kidney stones. Goldenrod increases renal (kidney) blood flow and filtration without stimulating the loss of sodium and chloride, and thus, is safer than many synthetic diuretic drugs that promote the loss of electrolytes. Goldenrod's diuretic action is due, in part, to the presence of flavonoids and saponins that stimulate fluid elimination from the kidneys. By increasing the flow of urine, goldenrod helps irrigate the urinary tract to flush out bacteria and stones. The German Commission E has approved goldenrod as "irrigation therapy" for inflammatory diseases of the lower urinary tract, urinary calculi (a solid mass usually made up of mineral salts) and kidney gravel, and as a prophylaxis (preventive treatment) for urinary calculi

and kidney gravel. Goldenrod has also been shown to directly soothe inflamed tissues and relieve muscle spasms in the urinary tract. In addition, goldenrod leaves and stems contain tannins that are noted for their astringent properties. Furthermore, goldenrod leaves contain an active component that has exhibited strong cytotoxic (toxic to cells) activities in laboratory studies against various tumor cells, including prostate, breast, melanoma and small cell lung carcinoma. Recent in vivo tests showed that goldenrod leaf extract significantly suppressed prostate tumor growth in mice with no apparent side-effects. Goldenrod is contraindicated during pregnancy because of its abortive properties.[7,13,15,19-22]

References:

[1]Roundtree MD, R. "Diuretics: Herbs or drugs?“ *Herbs For Health*; 2000, 5(4):26.

[2]"Kidney Disease.“ Life Extension Foundation; http://www.lef.org/protocols/prtcl-065.shtml

[3]Radhakrishnan MD, J. & Stern MD, L. "Why You Need Your Kidneys.“ BellaOnline, 2001; http://bellaonline.healthology.com.

[4]Green, M. "Urinary Tract Herbs.“ *Herbs For Health*; 2003, 8(1):49-51.

[5]Duke PhD, J. "Dr. Duke's Phytochemical and Ethnobotanical Databases;“ http://www.ars-grin.gov/duke/plants.html.

[6]Pitchford, P. *Healing with Whole Foods*. Berkeley, CA: North Atlantic Books, 1993.

[7]Lininger Jr, S., et. al. *The Natural Pharmacy, 2nd Ed*. Rocklin, CA: Prima Publishing, 1999.

[8]*PDR for Herbal Medicines, 1st Ed*. Montvale, NJ: Medical Economics Company, 1998.

[9]"Glutathione, Reduced (GSH).“ *Alternative Medicine Review*; 2002; 6(6):601-607.

[10]"Anticancer Constituents.“ *Nutrition Science News*; August, 1999.

[11]Newall, C., et. al. *Herbal Medicines*. London, England: The Pharmaceutical Press, 1996.

[12]Foster, S. "Traditional uses of plantain confirmed in early studies.“ *Herbs For Health*; 1998, 3(5):27.

[13]*Herbal Medicine: Expanded Commission E Monographs*. Newton, MA: Integrative Medicine Comm., 2000.

[14]Samuelsen, A.B. "The traditional uses, chemical constituents and biological activities of Plantago major L. A review.“ *Journal of Ethnopharmacology*; 2000, 71(1-2):1-21.

[15]Fetrow, C. & Avila, J. *Professional's Handbook of Complementary & Alternative Medicines*. Springhouse, PA: Springhouse Corp., 1999.

[16]Tunon, H., et. al. "Evaluation of anti-inflammatory activity of some Swedish medicinal plants. Inhibition of prostaglandin biosynthesis and PAF-induced exocytosis.“ *Journal of Ethnopharmacology*; 1995, 48(2):61-76.

[17]Angioni, A., et. al. "Chemical composition of the essential oils of Juniperus from ripe and unripe berries and leaves and their antimicrobial activity.“ *Journal of Agricultural and Food Chemistry*; 2003, 7;51(10):3073-3078.

[18]Mills, S. & Bone, K. *Principles and Practice of Phytotherapy*. London: Churchill Livingstone, 2000.

[19]Bratman MD, S. & Kroll PhD, D. *Natural Health Bible*. Prima Publishing, 1999.

[20]von Kruedener S, et. al. "Effects of extracts from Populus tremula L., solidago virgaurea L. and Fraxinus excelsior L. on various myeloperoxidase systems.“ *Arzneimittelforschung*; 1996, 46(8):809-814.

[21]—. "A combination of Populus tremula, Solidago virgaurea and Fraxinus excelsior as an anti-inflammatory and antirheumatic drug. A short review.“ *Arzneimittelforschung*; 1995, 45(2):169-171.

[22]Gross SC, et. al. "Antineoplastic activity of Solidago virgaurea on prostatic tumor cells in an SCID mouse model.“ *Nutrition and Cancer*; 2002, 43(1):76-81.

