



GENESTRA  
BRANDS®

# Kidney Complex

HERBAL FORMULA



## Herbal formula to help prevent and relieve minor UTI symptoms

- Cranberry is used in Herbal Medicine to help prevent urinary tract infections (UTIs)
- Uva-ursi is used in Herbal Medicine to help relieve symptoms associated with minor UTIs
- Provides antioxidants for the maintenance of good health
- Includes five additional herbal extracts: European Barberry, Corn, Three-leaf Caper, Saw Palmetto and Stinging Nettle

Kidney Complex was specifically formulated with herbs, such as cranberry and uva-ursi, used in Herbal Medicine to help prevent and relieve symptoms associated with minor UTIs. Cranberries are rich in polyphenol antioxidant compounds such as proanthocyanidins, which reduce the adhesiveness of *E. coli* bacteria to the uroepithelial cells that line the bladder.<sup>1</sup> Regular cranberry supplementation helps to reduce UTI incidence in women at an increased risk of UTI, and may help to improve lower urinary tract symptoms in men.<sup>2,3</sup> Similarly, uva-ursi is used in Herbal Medicine to help relieve symptoms associated with minor UTIs, including burning sensations and frequent urination. To further support good health, Kidney Complex contains European barberry, an herb traditionally used in Herbal Medicine to help stimulate the production of bile and relieve digestive disturbances. This blend includes additional important herbs, such as corn, stinging nettle, saw palmetto and three-leaf caper. Three-leaf caper, also known as Varuna in Ayurvedic medicine, has a long history of traditional use.

### EACH CAPSULE CONTAINS:

Uva-ursi ( <i>Arctostaphylos uva-ursi</i> ) Leaf Extract (4:1).....	100 mg
400 mg Dried Equivalent	
European Barberry ( <i>Berberis vulgaris</i> ) Root Extract (4:1) .....	100 mg
400 mg Dried Equivalent	
Cranberry ( <i>Vaccinium macrocarpon</i> ) Fruit Extract (36:1) .....	.75 mg
2700 mg Fresh Equivalent	
Corn ( <i>Zea mays</i> ) Style and Stigma Extract (10:1) .....	37.5 mg
375 mg Dried Equivalent	
Three-leaf Caper ( <i>Crateva magna</i> ) Bark Extract (12:1) .....	17.5 mg
210 mg Dried Equivalent	
Saw Palmetto ( <i>Serenoa repens</i> ) Fruit	
Std. Extract (45% Fatty Acids) .....	12.5 mg
Stinging Nettle ( <i>Urtica dioica</i> ) Leaf Extract (3-5:1) .....	7.5 mg
22.5-37.5 mg Dried Equivalent	

Non-Medicinal Ingredients: Hypromellose, ascorbyl palmitate, silica, cellulose

**Recommended Adult Dose:** Take four capsules two times daily, a few hours before or after taking any medication or natural health product, or as recommended by your healthcare practitioner.

Take with food to minimize gastric disturbance. Do not take with highly acidic foods or medications which may acidify urine. For occasional use only. Consult your healthcare practitioner for use beyond one week.

**Product Size:** 120 Vegetable Capsules    **Product Code:** 07682

NPN 80065688



### REFERENCES

1. Howell, AB. Mol Nutr Food Res. 2007; 51(6): 732-737.
2. Caljouw, MA, van den Hout, WB, Putter, H, Achterberg, WP, Cools, HJ, Gussekloo, J. J Am Geriatr Soc. 2014; 62(1): 103-10.
3. Vidlar, A, Vostalova, J, Ulrichova, J, Student, V, Stejskal, D, Reichenbach, R, Vrbkova, J, Ruzicka, F, Simanek, V. Br J Nutr. 2010; 104(8):1181-1189.

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## Scientific Rationale:

Urinary tract infections (UTIs) occur when the presence of one or more microorganisms in the genitourinary tract exceeds a certain threshold value.<sup>1</sup> After uropathogens colonize the periurethral area, they can pass into the urethra, adhere to the uroepithelial mucosa, and grow in the normally sterile urinary tract.<sup>2</sup> UTIs commonly affect the bladder and kidneys, and can result in increased frequency and pain passing urine, cloudy urine, and back pain.<sup>2</sup>

*E. coli* is the principal uropathogen and is responsible for nearly 80% of UTI cases.<sup>3</sup> Studies have found that *E. coli* present in the gastrointestinal tract migrates to the urinary tract, where it can cause UTIs.<sup>3</sup> As a result, researchers have suggested an important interaction between diet, digestive health and UTI risk.<sup>4</sup> Although UTIs occur in men, they are 50 times more common in women, likely due to a shorter urethra that may more easily allow bacteria into the bladder.<sup>2</sup> Other subpopulations at a greater risk for developing UTIs include the elderly, catheter users and postmenopausal women.<sup>2</sup>

### Cranberry

Cranberry is the most commonly studied plant for the prevention of UTIs.<sup>3</sup> Cranberries contain proanthocyanidins, which have been demonstrated to inhibit fibres on bacterial cell walls and reduce their adherence to epithelial cells of the bladder wall.<sup>1,2</sup> Cranberry can also change the morphology of *E. coli* cells, making them more spherical in shape; in turn, this causes them to be repelled by human cells.<sup>3</sup> As these pathogenic cells cannot adhere to urinary epithelial cells, they are unable to infect the mucosal surface of the host's urinary tract.<sup>2</sup>

Randomized, double-blind, placebo-controlled trials have investigated the effects of cranberry supplementation in women.<sup>5,6</sup> In one study involving young women with a history of

recurrent UTIs (four UTIs in the previous year or at least one in the preceding three months), daily cranberry intake was significantly more effective than the placebo in decreasing the number of UTIs over three months.<sup>5</sup> Similarly, another randomized, double-blind, placebo-controlled trial reported that cranberry supplementation helped to reduce UTI incidence in female residents of long-term care facilities.<sup>6</sup> Specifically, it was reported that among women at an increased risk of UTI (those with long-term catheterization or at least one UTI in the preceding year), cranberry supplementation lowered the incidence of clinically defined UTIs by 26% compared to the placebo.<sup>6</sup>

### Uva-ursi

Uva-ursi is traditionally used in Herbal Medicine to relieve symptoms associated with minor UTIs, including burning sensations and frequent urination. It contains arbutin, the primary bioactive compound responsible for the herb's antiseptic and antibacterial effects.<sup>4</sup> Arbutin is further metabolized to form hydroquinone, which may help support microbial balance in the urinary tract of individuals with UTIs.<sup>7,8</sup> *In vitro* research has found that uva-ursi can also change characteristics of the microbial cell surface, increasing the hydrophobicity of cells to decrease their adherence to the host.<sup>3</sup> Additionally, uva-ursi is traditionally used in Herbal Medicine as a mild diuretic to increase urinary flow, which further helps to relieve minor UTI symptoms.<sup>4</sup>

### European Barberry

European Barberry is traditionally used in Herbal Medicine as a mild laxative and bitter tonic to help increase appetite. It is also traditionally used to help stimulate bile production and relieve digestive disturbances, such as dyspepsia and indigestion. These effects are primarily attributed to berberine, its main bioactive compound.<sup>3</sup>

## REFERENCES

1. Guay, DR. *Drugs*. 2009; 69(7): 775-807.
2. Jepson, RG, Williams, G, Craig, JC. *Cochrane Database Syst Rev*. 2012; 10: CD001321.
3. Amalaradjou, MAR, Venkitanarayanan, K. (2011). Natural Approaches for Controlling Urinary Tract Infections, *Urinary Tract Infections*. In P. Tenke (Ed.), *Urinary Tract Infections* (pp. 227-244). InTech.
4. Hudson, T. *Altern Complement Ther*. 2006; 12(6): 297-302.
5. Walker, EB, Barney, DP, Mickelsen, JN, Walton, RJ, Mickelsen, RA. *Fam Pract*. 1997; 45(2): 167-168.
6. Caljouw, MA, van den Hout, WB, Putter, H, Achterberg, WP, Cools, HJ, Gussekloo, J. *J Am Geriatr Soc*. 2014; 62(1): 103-10.
7. Geetha, RV, Anitha, R, Lakshmi, T. *Int J Drug Dev & Res*. 2011; 3(3): 85-100.
8. Yarnell, E. *World J Urol*. 2002; 20(5): 285-93.

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