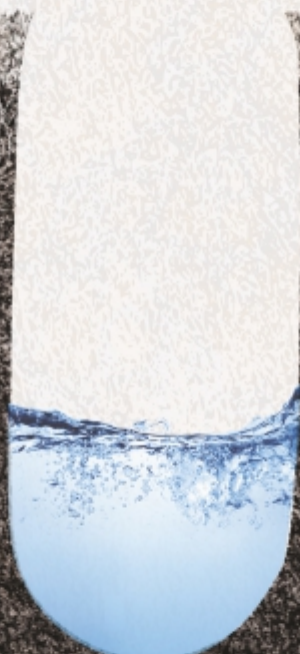


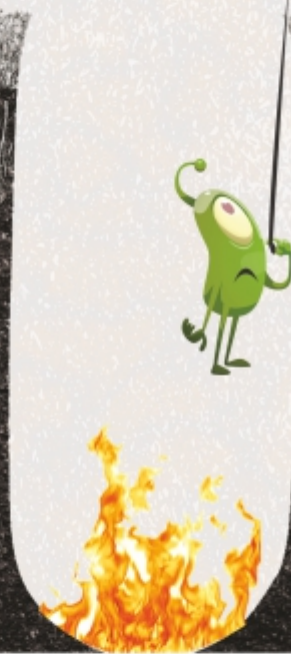
[DUAL ACTION AGAINST INFECTION]



D-Mannose



Cranberry Extract



Cramose

D-Mannose 600 mg and Cranberry Extract 300 mg Tablets

Cramose

D-Mannose 600 mg and Cranberry Extract 300 mg Tablets

Background:

Recurrent urinary tract infections (UTIs) are more common in women and are frequently defined as ≥ 2 episodes in the last 6 months or ≥ 3 episodes in the last 12 months. The majority of recurrences are believed to be reinfection from extraurinary sources such as the rectum or vagina. However, uropathogenic *Escherichia coli* are now known to invade urothelial cells and form quiescent intracellular bacterial reservoirs.¹

In a primary care setting within 1 year,

{ 53 % of women > 55 years² and
36 % of women younger women² }
had reported UTI recurrence.

Mechanism of Action:

Cranberry:

- One important property of *E. coli* is its adherence to the host tissue.³
- Cranberries work principally by preventing the adhesion of type 1 and p-fimbriae strains (particularly from *E. coli*) to the urothelium. Without adhesion, the bacteria cannot infect the mucosal surface.³
- Cranberry inhibits adherence of uropathogens to uroepithelial cells.³
- Cranberry improves urinary tract health by lowering the pH of the urinary tract.⁴
- The uniquely structured proanthocyanidins (PAC) present in cranberry inhibit the adherence of pathogenic P-fimbriated *Escherichia coli* (*E. coli*) and they do so in a dose-dependent manner.⁴

D-Mannose:

- D-Mannose that are normally found in human metabolism and has an important role, especially in the glycosylation of certain proteins.⁵
- D-Mannose works by inhibition of bacterial adherence to urothelial cells.⁵
- D-Mannose appeared to be a safe and effective treatment for recurrent UTIs in adult women.⁵
- D-Mannose acts as a competitive inhibitor of bacterial adherence; in sufficient concentration in urine D-Mannose cause's saturation of FimH adhesins and prevents the bacteria from binding to urothelial receptors.⁵

Why CRAMOSE??

Cranberry supplementation is effective and safe approach, within a standard management program, for the prevention of recurrent UTIs in elderly men suffering from BPH avoiding some antibiotic treatments.⁷

Long-term ability of an association of Cranberry, D Mannose, an innovative gelling complex, significantly improves the uncomfortable symptoms reported by women with acute cystitis.⁸

References:

1. Int J Urogynecol J;2015
2. Am J Epidemiol Vol. 151, No. 12, 2000
3. CLINICS;67(6);661-667; 2012
4. Crit Rev Food Sci Nutr;42(3 Suppl):273-8;2002.

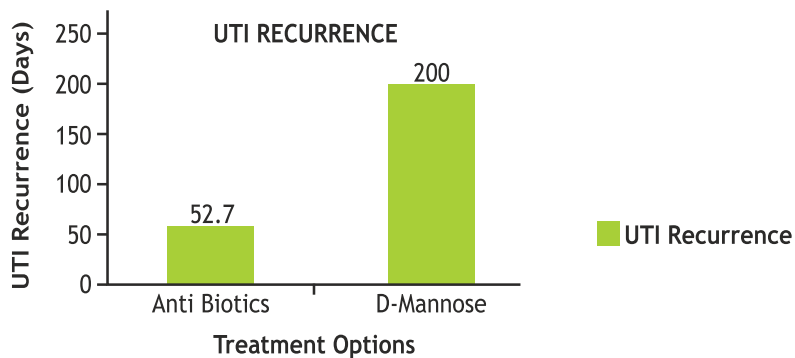
5. Journal of Clinical Urology
6. Journal of Clinical Urology 2014,
7. European Review for Medical and Pharmacological Sciences;2016
8. J Clin Gastroenterol 2014

9. Journal of Clinical Urology; 2014
10. Journal compilation; 2014, The American Geriatrics Society.
11. European Review for Medical and Pharmacological Sciences;2016

Clinical Evidence:

Sr. no.	Design	Subjects	Outcomes
1.	Randomized Cross-Over Trial ⁹	The aim was to evaluate the efficacy of D-Mannose in the treatment and prophylaxis of recurrent UTIs in 60 patients.	D-Mannose appeared to be a safe and effective treatment for recurrent UTIs in adult women. A significant difference was observed in the proportion of women remaining infection free versus antibiotic treatment.
2.	Double-blind randomized placebo-controlled multicenter trial. ¹⁰	To determine if cranberry capsules prevent urinary tract infection (UTI) in long-term care facility (LTCF) residents on 928 patients.	In LTCF residents with high UTI risk at baseline, taking cranberry capsules twice daily reduces the incidence of clinically defined UTI.
3.	Pilot Registry Study ¹¹	The aim of the study was to evaluate the prophylactic effects of an oral supplementation containing standardized cranberry extract, in elderly men (n=43) with benign prostatic hyperplasia (BPH), suffering from recurrent UTIs, over a 2-months follow-up.	These results suggest that cranberry supplementation could be an effective, and safe approach, for the prevention of recurrent UTIs in elderly men suffering from BPH avoiding some antibiotic treatments.

Aim:
To examine the efficacy of Oral D-Mannose vs. Antibiotics in recurrent urinary tract infections in women.



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Time to recurrence in 60 female patients with recurrent UTIs with antibiotic treatment: 52.7 days (SD: 11.2), and with treatment with D-Mannose for 24 weeks: 200 days (SD: 50.7). All differences were statistically significant⁶.

Cramose

D-mannose 600 mg and Cranberry Extract 300 mg Tablets

Recommended For:

- Improving Urinary Tract Health
- Prevent urinary tract infection (UTIs).
- Beneficial in Recurrent UTIs in elderly men suffering from BPH

Description:

Flavonoids are the most common group of polyphenolic compounds in the human diet and are found ubiquitously in plants. There are several distinct classes of flavonoids found in cranberries. Cranberry flavonoids include anthocyanins, the pigments that give cranberries their rich red colour, flavonols (polyphenols), and proanthocyanidins.

On the other hand, D-Mannose is a sugar monomer of the aldohexose series of carbohydrates. The empirical formula of D-Mannose is $C_6H_{12}O_6$ and the molecular weight is 180.2.

Anti-adhesive effect in UTI:

The bladder lining is comprised of polysaccharide molecules. In the bladder, D-Mannose can adhere to undesirable foreign bacteria, preventing them from sticking to the lining of the bladder. Finger-like projections on the cell surface of E.coli bacteria adhere to these molecules, initiating an infection. In the presence of D-Mannose, E.coli preferentially attach to D-Mannose molecules forming a complex which is expelled with the next voiding. Further, around 5% of the totally daily dose of D-Mannose is converted to mannitol which produces a local diuretic action and helps in flushing and elimination of bacteria from the urinary tract.

Recommended Usage:

The recommended dose is 2 tablets daily after food for 3-6 months with plenty of water or as directed by the physician.

Tablets can be co-prescribed with antibiotics and after an initial course of treatment (with antibiotics), it may be continued for 30 months to prevent recurrence.

Presentation:

10 strips of 10 tablets in a box.

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