

SIGNS &  
SYMPTOMS  
OF

# UTI

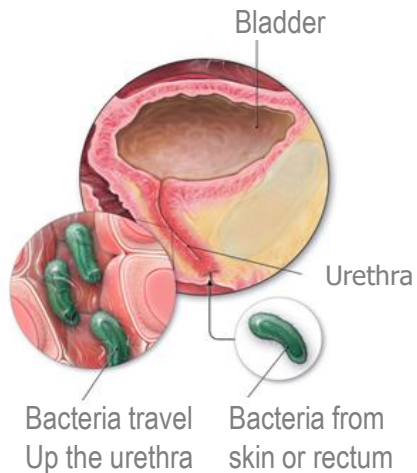
- Burning sensation during urination
- Pungent smell
- Lower abdominal pain
- Sudden urge to urinate frequently
- Blood in urine
- Dribble when urinating

## Perplexed by Urinary Tract Infections



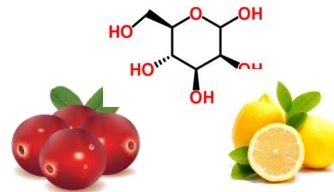
## INCIDENCE OF UTI

- Women have more than a **50%** chance of getting a UTI in their lifetime.
- UTIs are common, and around **11%** of women have an UTI each year.
- Recurrent UTIs carry a significant burden for the patient.
- Recurrent infections occur in around **35% to 53%** of women treated for UTI within 12 months<sup>2</sup>.



## TREATMENT

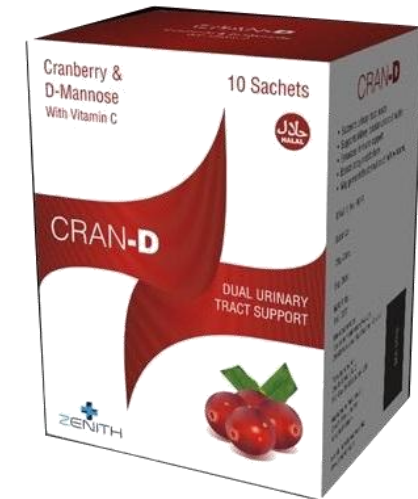
- The treatment recommended for UTIs by conventional medicine is antibiotics.
- For those suffering from recurrent infections, low doses of antibiotics are generally prescribed to be taken daily for a period of six months or even more.
- This might increase the risk of:
  - Developing antibiotic-resistant strains.
  - Antibiotic might kill both the good and bad bacteria in your gut, which may cause major health disruptions.



- The good news is Cran-D can help deal with UTIs before they take hold, that too naturally!

## INTRODUCING CRAN-D

A combination of 3 proven natural ingredients to fight UTIs and reduce the chances of recurrence of RUTIs.



CRAN-D contains,

- Cranberry extract
- D-Mannose
- Vitamin C

*Prevent & Treat UTIs.... Naturally*

**CRAN-D**

## CRANBERRY



- Cranberries contain proanthocyanidins (PACs) that can inhibit adherence of P-fimbriated *E. coli* to the uroepithelial cell receptors<sup>1</sup>.
- Based on the studies, it was concluded that cranberry products significantly reduce the incidence of UTIs at 12 months compared with placebo/control in women with recurrent UTIs<sup>1</sup>.
- Cranberry juice provides an alternative tool for prevention of urinary tract infection that could result in decreased use of antimicrobials<sup>2</sup>.

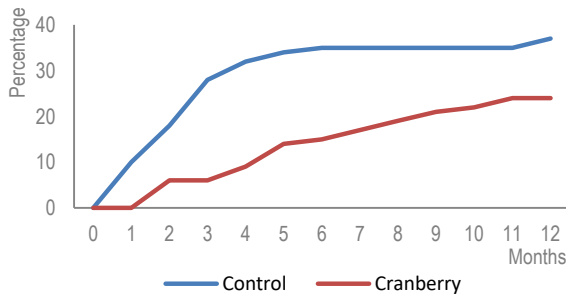
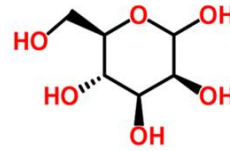


Fig 1: Cumulative rate of first recurrence of urinary tract infection during 12 month follow up in women receiving cranberry juice for six months or no intervention. Occurrence of urinary tract infection was significantly lower in cranberry group than in control group (P=0.014 at 6 months, 0.052 at 12 months)<sup>2</sup>

## D-MANNOSE



- D-mannose is a sugar that has an important role in human metabolism, especially in the glycosylation of certain proteins<sup>3</sup>.
- Studies suggest that this compound plays a role in supporting healthy genito-urinary function and preventing UTI's by maintaining a healthy mucosal surface<sup>4</sup>.
- D-mannose binds to the type 1 pili of enteric bacteria blocking their adhesion to uroepithelial cells, and reduce bacteriuria levels<sup>5</sup>.

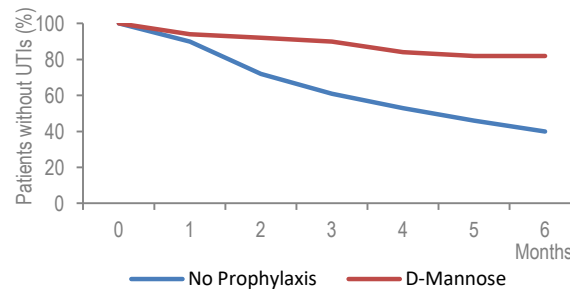


Fig. 2: Kaplan-Meier plot showing the percentage of patients remaining cystitis-free during the 6-month clinical trial period<sup>3</sup>

## VITAMIN C



- Vitamin C can acidify urine and has been associated with decreased risk of UTI
- Vitamin C can also have a bacteriostatic effect within urine, mediated by reduction of urinary nitrites to reactive nitrogen oxides<sup>6</sup>.



- The combination of Cranberry extract, D-mannose and Vitamin C provides the combined power to prevent and treat urinary tract infections with natural ingredients.

# Naturally CRAN-D

- Reduces the chances of urinary tract infections
- Supports urinary tract health
- Enhances immune system
- Reduces reliance on antibiotics
- Promotes healthy functions of the urinary tract



#### Instructions:

Uses: Prevention and treatment of urinary tract infections. Recommended Intake: 1-2 sachets per day  
Instructions: Mix the content of sachet in a glass of water & use immediately. Take 1-2 sachets daily. Once opened, use sachet immediately. Keep out of the reach of children. Store in cool dry place.

#### References:

1. Beerepoot M, Geerlings S. Non-Antibiotic Prophylaxis for Urinary Tract Infections. *Pathogens*. 2016, 5, 36
2. Tero Kontiokari, Kaj Sundqvist, M Nuutinen, T Pokka, M Koskela, M Uhari, Randomised trial of cranberry-lingonberry juice and Lactobacillus GG drink for the prevention of urinary tract infections in women. *BMJ* Volume 322 30 June 2001
3. Bojana Kranjc, Dino Papes, Silvio Altarac. D-mannose powder for prophylaxis of recurrent urinary tract infections in women: a randomized clinical trial. *World J Urol* DOI 10.1007/s00345-013-1091-6
4. Schaeffer AJ, Chmiel JS, Duncan JL, Falkowski WS. Mannose-sensitive adherence of *Escherichia coli* to epithelial cells from women with recurrent urinary tract infections. *J Urol*. 1984 May;131(5):906-10.
5. Michaels EK, Chmiel JS, Plotkin BJ, Schaeffer AJ. Effect of D-mannose and D-glucose on *Escherichia coli* bacteriuria in rats. *Urol Res* 1983; 11: 97-102
6. Carlsson S, Wiklund NP, Engstrand L, et al. Effects of pH, nitrite, and ascorbic acid on nonenzymatic nitric oxide generation and bacterial growth in urine. *Nitric Oxide*. 2001;5:580-586

CRAN-D is manufactured in a US FDA registered facility conforming to GMP standards



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