

Preventing Urinary Tract Infections

James Meschino DC, MS, ND

After the common cold, the second most common health condition that accounts for visits to doctors' offices are urinary tract infections. In fact, nine million doctor's office visits each year involve urinary tract infections, often referred to as UTI.

The common symptoms and signs of UTI include:

- Burning sensation when you urinate
- Feeling the need to urinate more often than usual
- Feeling the urge to urinate, but not being able to do so
- Cloudy, dark, smelly or bloody urine

Note that in elderly patients, none of these symptoms may be present, but a UTI should be investigated (via urine sample) in an elderly patient who has a fever and/or personality changes with no other symptoms of infection or known cognition problems.

Women tend to get urinary tract infections more often than men because bacteria can reach the bladder more easily in women. The urethra is shorter in women than in men, thus, bacteria have a shorter distance to travel.

The urethra is also located near the rectum in women. Bacteria from the rectum can easily travel up the urethra and cause infections.

For women, having sex may also cause urinary tract infections because bacteria can be pushed into the urethra.

There are some basic measures that can help to prevent recurring urinary tract infections that women follow. These include:

1. Drink More Water - water helps flush the urinary tract and move bacteria out of the body in the urine.

2. Don't hold it when you need to urinate - holding it, when you need to go, enables bacteria that may be present to develop into a full-fledged urinary tract infection.
3. Wipe from front to back after a bowl movement - this is especially important to help prevent bacteria from migrating from the anus to the vagina or urethra.
4. Take showers instead of baths - this helps to prevent bacteria from entering the urethra and causing a UTI.
5. Always wash your genital area before and after sexual intercourse - this helps prevent transferring bacteria to the urethra or vaginal area
6. Wear panties with a cotton crotch (white cotton panties are best) - cotton fabric lets moisture escape while other fabrics can trap moisture, creating a potential breeding ground for bacteria. Bacteria love moisture.
7. Avoid Feminine hygiene sprays and douches – this is especially true for scented douches, which can irritate the urethra and may increase risk of a UTI.
8. Vitamin C supplementation – taking 500 mg of vitamin C, twice per day (as can be found in a high potency multiple vitamin and mineral) can increase the acidity of your urine. It is more difficult for bacteria to grow in an acidic environment.
9. Take a supplement once or twice per day containing preventive doses of Cranberry Extract and D-Mannose.

Cranberry Extract: Studies demonstrate that Cranberry Extract contains active constituents, which decrease the ability of bacteria to adhere to the walls of the urinary tract. In addition, cranberry extract also helps to acidify the urine, which decreases the ability of bacteria to replicate. The cranberry extract you use should provide at least 150 mg per capsule and be standardized to contain 30% total acids, of which 10% are quinic acid and 3% polyphenols. A number of placebo-

controlled studies have shown that cranberry extract reduces recurrence of urinary tract infections, even in elderly women

D- Mannose - As mentioned above, it is best to take a supplement that contains both cranberry extract and D-Mannose. D-mannose is a simple sugar that the body can not metabolize (so no calories to worry about and it does not affect blood sugar). However, once filtered by the kidneys into the urine, D-Mannose acts like a slippery glove around the tentacles of E. Coli bacteria, preventing the bacteria from clinging to the walls of the urinary tract. In the presence of D-Mannose the bacteria simply lose their grip and slide out of your body each time you urinate. E. Coli is the primary culprit in urinary tract infections. And it's a stubborn little germ, largely because it grips to the walls of the urinary tract with its tentacles that act like little suction cups. Thus, E.coli bacteria, is hard to eliminate even in with the use of antibiotics, which are sometimes required when a UTI is in progress. But antibiotics may not kill all the E.Coli bacteria and the ones that remains cling to the walls of the urinary tract, giving them a chance to multiply and create a whole new UTI episode in the future. This is where D-Mannose comes in. D-Mannose, at a daily dosage of 500-1,000 mg per day helps to flush E.Coli out of the body before they can stick to the walls of the urinary tract and initiate another urinary tract infection. Thus, a combination supplement containing cranberry extract and D-Mannose, at effective dosages and standardized grade, is a potent one-two punch in the prevention of recurrent urinary tract infections.

If you suffer from recurrent urinary tract infections, I advise you to follow the recommendations above and speak to your health practitioner about a combination supplement (e.g. Adeeva UTI-Clear) that contains optimal dosages of cranberry extract and D-Mannose.

Selected References:

American Academy of Family Physicians 2001-2008 [www.
http://familydoctor.org/online/famdocen/home/women/gen-health/190.html](http://familydoctor.org/online/famdocen/home/women/gen-health/190.html)

National Institutes of Health (NIH) Publication No. 04-2097

Boon H, Smith M. Health care professional training program in complementary medicine. Institute of Applied Complementary Medicine Inc. 1997:77-81.

Marles RJ. Review of medicinal plant modules for CCNM. Brandon, Manitoba. University of Brandon 1997.

Leung AY, Foster S. Encyclopedia of common natural ingredients used in food, drugs, and cosmetics. 2nd edition. Toronto/New York. John Wiley and Sons Inc. 1996:649.

Gibson L, Pike L, Kilbourn JP. Effectiveness of cranberry juice in preventing urinary tract infections in long-term care facility patients. *The Journal of Naturopathic Medicine* 1991;2(1):45-7.

Avorn J, Manone M, Gurwitz JH, Glynn RJ, Choodnovskiy I, Lipsitz LA. Reduction of bacteriuria and pyuria after ingestion of cranberry juice. *Journal of the American Medical Association* 1994;271:751-4.

Kilbourne JP. Cranberry juice appears to prevent urinary tract infections. *CCML Newsletter* 1986Jan.

Haverkorn MJ, Mandigers J. Reduction of bacteriuria and pyuria using cranberry juice. *Journal of the American Medical Association* 1994;272(8):590.

Katz LM. Reduction of bacteriuria and pyuria using cranberry juice. *Journal of the American Medical Association* 1994;272(8):588.

Hamilton-Miller JMT. Reduction of bacteriuria and pyuria using cranberry juice. *Journal of the American Medical Association* 1994;272(8):588.

Goodfriend R. Reduction of bacteriuria and pyuria using cranberry juice. *Journal of the American Medical Association* 1994;272(8):588.

Hopkins WJ, Heisey DM, Jonier M, Uehling DT. Reduction of bacteriuria and pyuria using cranberry juice. *Journal of the American Medical Association* 1994;272(8):588-9.

Sobota AE. Inhibition of bacterial adherence by cranberry juice: potential use for the treatment of urinary tract infection. *Journal of Urology* 1984;131:1013-6.

Zafriri D, Ofek I, Adar R, Pocino M, Sharon N. Inhibitory activity of cranberry juice on adherence of Type I and Type P fimbriated escherichia coli to eukaryotic cells. *Antimicrobial Agents and Chemotherapy* 1989;33(1):92-8.

Brown D. Herbal prescriptions for better health. Rocklin, CA. Prima Publishing 1996:349.

Howell AB, Vorse N, Der Maderosian a. Inhibition of the adheence of P-fimbriated Escherichia coli to uroepithelial-all surfaces by proanthocyanidin extracts from cranberries. *N Eng J Med.*1998;339:1005-6.

Stothers LA. A randomized placebo controlled trial to evaluate naturopathic cranberry products as prophylaxis against urinary

tract infection in women. Presented at: Am Urological Association 2001 Annual Meeting; June 2-7,2001; Anaheim, California. Publ ID:318

Mannose-sensitive adherence of Escherichia coli to epithelial cells from women with recurrent urinary tract infections, J Urol 131(5):906-910, May 1984.

Mannose Sensitive Adherence of Escherichia coli to Epithelial Cells. Eighty-First Annual Meeting of the American Society for Microbiology. Dallas, Texas. March 2-4, 1981.

Effect of D-mannose and D-glucose on Escherichia coli bacteriuria in rats, Urol Res 11(2):97-102, 1983.