



UtyMax for the Prevention of Urinary Tract Infections In-Service Guide

A Urinary Tract Infection is typically characterized by the sudden onset of frequent, painful and urgent urination. Lower abdominal pain or lower back pain may also be present. The urine is often foul smelling and cloudy.

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Eighty percent of all women will experience a UTI in their lifetime. Approximately 20% of women will have a UTI each year. One in seven visits to the physician are urinary related, totaling over 9 million visits annually.

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Urinary Tract Infections are the 2nd most common bacterial infection in the US representing \$1.6 billion per year in medical costs.

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UTI's are the most prevalent infection in Long Term Care. It is the most common reason for hospital transfer and the most common condition for which antibiotics are given.

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Up to 50% of LTC residents have recurring UTI's caused by resilience of bacteria, resistance to antibiotics or genetic or physical conditions.

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Women are at an increased risk for UTI's for several reasons:

- Anatomy- close proximity of the urethra and the rectal and vaginal area allows bacteria easier access into the bladder.
- Menopause- thinning of the uro-vaginal area makes it more likely for bacteria to break through and cause infection.
- Fluid loss and dehydration lead to more concentrated urine which creates a perfect environment for bacteria to thrive and develop a UTI.

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Hygiene plays a role in UTI's in woman as well. Pathogenic microorganisms originate from fecal sources, migrate upwards, enter the urethra, attach, proliferate and cause symptoms, irritating the bladder wall causing an inflammatory effect. Wiping from front to back after urination helps to avoid spreading bacteria.

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The main cause of UTI's are uropathogens. The main uropathogen is E. Coli which contributes to 90% of UTI's

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Left untreated, bacterial spread into the bloodstream leading to fever, reduced blood pressure, altered mental status and deprivation of oxygen to the major organs. Over time, UTI's can be fatal.

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The body has natural defense mechanisms:

- Acid vaginal environment/prostatic secretions
- Urine flow and urinations
- Antibacterial properties of urine and its constituents
- Inflammatory response
- Acidic bladder mucosa destroys the bacteria in the urine remaining on the walls.

UTI's are diagnosed by examination of a mid-stream urine sample (urinalysis and urine culture).

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UTI's are traditionally treated with a short course of antibiotics:

- Treatment 10-14 days
- Cures 94% of uncomplicated UTI's
- Recurrent UTI's: repeat course of antibiotics or low dose of long term antibiotic prophylaxis.

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The problem with antibiotics:

- Bacteria becomes resistant
- Allergic reaction
- Nausea, vomiting, Diarrhea
- Interactions with foods or other drugs
- Depletion of beneficial bacteria in the intestinal microbiota
- Yeast infections/Thrush

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Why Cranberries as a natural remedy to UTI's?

Native Americans used cranberries as a treatment for bladder and kidney diseases. The first research on the use of cranberries for urinary health occurred during the 18th century.

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How do Cranberries prevent UTI's?

Research indicates that cranberries contain specific compounds, "condensed tannins" and "proanthocyanidins" which prevent the adherence of E. Coli bacteria to the walls of the urinary tract. Thus the bacteria are simply washed away in the normal cleansing process of the urinary tract.

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What is UtyMax?

UtyMax is a medical food that helps with the dietary management of urinary tract infections. UtyMax is an instant cranberry flavored drink mix that contains 500 mg of CranMax, the only cranberry extract clinically proven to be as effective as the commonly prescribed antibiotic Trimethoprim (Bactrim) in preventing recurrent UTI's.

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What is CranMax, the active ingredient in UtyMax?

CranMax made from 100% cranberry fruit solids through a proprietary process that intensifies the natural benefits of the whole cranberry without the use of any solvents, preservatives, sugars, water, flavorings or colors.

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CranMax cranberry extract is more potent than cranberry juice because it contains all of the vital parts of the cranberry-fruit, seeds, skin and juice. Each pound of CranMax contain the entire fruit of 32 pounds of cranberries and has 3 times greater antioxidant activity than cranberry juice. The anthocyanin content in the daily dose of CranMax (500 mg) is equivalent to 7 eight ounce glasses of Ocean Spray Cranberry Cocktail.

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CranMax features a patented technology called BioShield which protects the bioactive components of the cranberry from being degraded by digestive fluids in the stomach, enabling it to provide a sustained time release of the active ingredients in the urinary tract.

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How does CranMax work?

The active compounds in CranMax inhibit the bacteria from attaching to the bladder wall. CranMax does not kill bacteria. Instead it inhibits bacteria from adhering and colonizing on the walls of the urinary tract so it is flushed out naturally.

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Why UtyMax instead of Cranberry Juice?

Although several clinical studies have found that cranberry juice to be beneficial in preventing UTI's, the amount which must be consumed to be effective is considerable. And since an 8-ounce glass Cranberry Cocktail contains 30 grams of sugar (high fructose corn sweetener) it is not appropriate for all diets. If the resident already has a UTI, the sugar content of Cranberry Cocktail will exacerbate the UTI.

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Recommended Dosage of UtyMax:

One packet of UtyMax containing 500 mg of CranMax mixed in 4 to 8 oz of water or juice is recommended for urinary tract health to prevent recurrent UTI's. In some cases one packet of UtyMax BID may be recommended.

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If the resident is currently being treated with antibiotics for UTI's they should continue with the antibiotic until the course is completed the start with one pack of UtyMax a day to prevent a recurrent UTI.

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How safe is UtyMax and CranMax?

No negative side effects have ever been reported from use of UtyMax or CranMax. Since UtyMax does not contain bromelain is it not contraindicated for Coumadin or Warafin.

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CranMax is the only clinically tested product shown to be as effective as trimethoprim (Bactrim) in preventing recurrent UTI's.

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CranMax is more powerful and works faster in addressing symptoms of UTI's than any other cranberry product with none of the side effects found in prescription drugs.

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UtyMax helps comply with CMS guidelines to reduce polypharmacy by optimizing non-pharmacological alternative.

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In a study by the Department of Surgery and the Department of Health and Epidemiology at the University of British Columbia of 150 women aged 21 through 72 found that CranMax proved the most cost effective prevention for UTI's.

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Conclusion:

- UtyMax is a good tasting, easy to use, one dose per day medical food.
- UtyMax contains 500 mg of CranMax per dose. CranMax is clinically proven to be more powerful and work faster to relieve the symptoms of UTI's than any other cranberry product. It is twice as effective as Cranberry extract capsules.
- UtyMax has none of the side effects found in prescription drugs.

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- A proprietary manufacturing process intensifies the natural benefits of premium cranberries using the whole fruit without solvents, sugars, artificial flavorings or colors.
- CranMax is the only cranberry preparation made using the patented BioShield Technology that protects the cranberry from destruction by gastric acid, delivering the nutrients to the lower gastrointestinal tract where they can be easily absorbed through a time-release mechanism.

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Studies:

CranMax matched the efficacy of the antibiotic Trimethoprim for UTI's without any of the side effects common in antibiotics. *Journal of Antimicrobial Chemotherapy*, doi:10.1093/jac/dkn489, Nov.2008

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Researchers reported the prevention of UTI's in people with spinal cord injuries, a segment of the population at increased risk of infections. Evaluation of cranberry tablets (500 mg CranMax) for the prevention of urinary tract infections in spinal cord injured patients with neurogenic bladders. *Spinal Cord, International Spinal Cord Society*.doi 10.1038/sc Nov.2008

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A clinical study published in January 2007 in *Gynecologists and Obstetrician's Journal* found that CranMax was nearly "twice as effective" as cranberry extract capsules containing 36 mg of a proanthocyanidins in reducing the recurrence of lower UTI's.

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Researchers from St. Francis College, Mount Sinai School of Medicine and New York University reported that anti-bacterial benefits of CanMax may be matched by anti-viral benefits. *Phytomedicine*, Vol 14, pp 23-30.

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A randomized trial to evaluate effectiveness and cost effectiveness of naturopathic cranberry product (500 mg CranMax) as prophylaxis against urinary tract infections in women. *The Canadian Journal of Urology*. 2002; 9(3):1558-1562

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Thank you.



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