

**Title:**

How can I prevent bladder infections?

**Author:**

Carter Lebares

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**Abstract:**

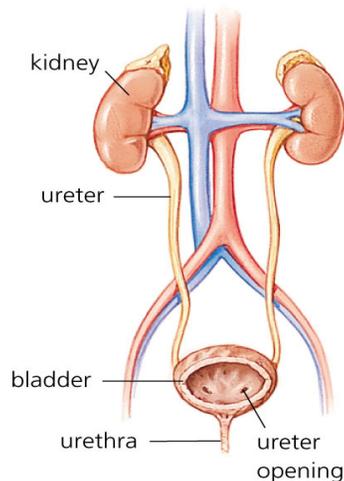
There is moderate evidence supporting the use of cranberry juice and tablets to prevent recurrent UTIs in women. Cranberries contain a substance that prevents bacteria from adhering to the walls of the urethra and bladder, inhibiting colonization and spread. The findings regarding men, elderly women or people with neurogenic bladder are inconclusive, although this may be due to a lack of standardized methods within and across studies. In regard to using cranberry for recurrent UTIs in women, the effective dose has not been clearly identified although good results were seen with a quarter cup of concentrate, an 8oz glass of juice or two tablets per day. Side effects may occur, the most common of which is GI upset. More rare effects include oxalate kidney stones and allergic reaction to the aspirin-like components found within cranberry preparations.

This document was created by a medical student enrolled in the Primary Care Clerkship at the University of Minnesota Medical School as part of the course project. The aim of the project is to present information on a medical topic in the format of a patient education handout. It does not necessarily reflect the views of the University of Minnesota Medical School physicians and faculty. These materials are provided for informational purposes only and are in no way intended to take the place of the advice and recommendations of your personal health care provider. The information provided may no longer be up to date since it has not been reviewed since the date of creation. The information provided should not be used to diagnose a health problem or disease, or as a means of determining treatment. In the event of a medical emergency, immediately contact a doctor or call 911.

## WHAT YOU CAN DO TO PREVENT BLADDER INFECTIONS

### What is a 'bladder infection'?

'Bladder infection' is a term often used to describe an infection anywhere in the urinary system. The urinary system is made up of the kidneys, the ureters, the bladder and the urethra, and infection can occur in any one of these parts. All of these infections are commonly caused by *Escherichia coli* (E. coli), bacteria that naturally colonize the human colon. In order for an infection to begin, E. coli adhere to the external opening of the urethra and can 'climb' up the internal urinary tract as they reproduce and their numbers increase.



### UTIs

Urinary tract infections (or UTIs) are infections of the urethra, the tube that passes urine from the bladder to the outside of the body. UTIs are the most common type of urinary tract infection. They are characterized by painful or frequent urination or the sensation that one needs to urinate but cannot. If left untreated, UTIs can lead to an infection in the kidneys. An infection of the kidney can be very serious, particularly in women who are pregnant or elderly.



### Who gets UTIs?

60% of all women will have a UTI at some point in their life and at least a third of these women will have a recurrence within one year. Many women have a second or third recurrence, as well. Sexual activity is the most important risk factor for UTIs and women aged 25-29, or over 55, are most commonly affected.

### How are UTIs diagnosed?

In general, UTIs are first identified based on a patient's complaints (as described above). To confirm the diagnosis, a urinalysis is performed to look for bacteria or other signs of infection.



### How are they treated?

Once identified, a UTI is treated with antibiotics. The typical course is 5 days long and may need to be repeated if infection recurs. Unfortunately, repeated use of antibiotics can encourage resistance among bacteria and make the resolution of infections more difficult over time.

**What else can be done?**

Beside good genital hygiene (wiping from front to back) and being sure to urinate immediately after sexual intercourse, there are some natural remedies that have been shown to be effective for prevention of UTIs.



**Cranberry**, in either sugar-free juice or tablets, has been shown to reduce the recurrence of UTIs in women. Studies suggest that some of the natural chemicals in cranberry change the surface of the urethra and bladder, making it more difficult for *E. coli* to hang on and climb inside. Because of this property, taking cranberry on a daily basis following a UTI can decrease your chance of recurrence – and decrease your need for additional antibiotics.

*Please be aware that cranberry has NOT been shown to cure UTIs, so you should still call your doctor if you have any of the symptoms described above or if you feel you may have any type of infection.*

**FOR MORE INFORMATION:**

**National kidney and Urologic Disease  
Information Clearinghouse**  
<http://kidney.niddk.nih.gov/kudiseases/pubs/utiadult/>