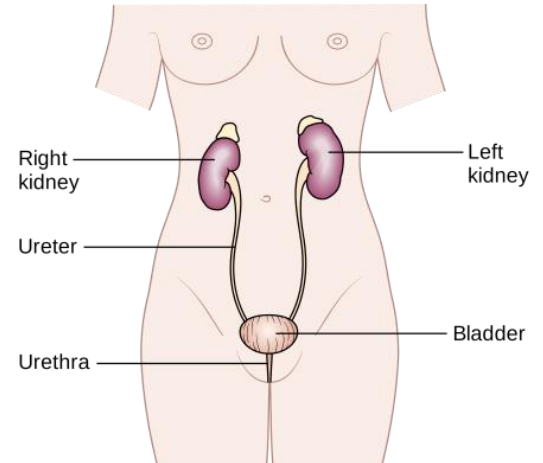




## Recurrent Urinary Tract Infections (UTIs) in Women

More than half of all women will have a urinary tract infection in their lifetime, but a smaller subset will have recurrent infection. UTIs can involve the bladder (cystitis) or the bladder and the kidneys (pyelonephritis). The definition of recurrent UTIs is 2 or more in a 6 month period or 3 or more in a 12 month period.

The goal of antibiotic therapy for treatment or suppression is to relieve and prevent recurrence of urinary tract symptoms. There may be persistence of bacteria in the urine without symptoms. The ongoing presence of bacteria in the urine (bacteriuria) may be due to anatomic or immune abnormalities, but in some instances it is not clear why there is bacterial colonization of the bladder (presence of bacteria without evidence of damage). Recent studies show that there may be bacterial reservoirs that live inside bladder cells but it is not clear how to treat this currently.



### Goals of Management of UTIs at Beacon Center:

- Improve your understanding of why UTIs occur and when to use antibiotics.
- Reduce the frequency of UTIs.
- Limit development of resistant bacteria by judicious use of antibiotics when these three things exist: symptoms of a UTI, an abnormal urinalysis, and a positive urine culture.
- Exclude other causes of symptoms such as sexually transmitted infections, if appropriate.

Typical Symptoms of a UTI	Symptoms Not Indicative of UTI in the <i>Absence</i> of Typical Symptoms:
burning with urination, urinating more frequently, urgency to urinate, unable to empty bladder completely, fever, pelvic pain	foul smelling urine, dark urine, cloudy urine

Day to day habits you can do on your own that **may** help prevent urinary tract infections:

- Liberal fluid intake if not contraindicated based on other underlying medical problems.
- Wipe from front to back to prevent bacteria in the anal region from spreading to the vagina and urethra.
- Empty your bladder soon after intercourse.
- Avoid potentially irritating feminine products such as deodorant sprays, douches and powders, which can irritate the urethra.
- Try not to use diaphragms, unlubricated condoms or spermicide-treated condoms. These products are associated with increased frequency of UTIs
- Avoid long intervals between voiding. Try to empty the bladder every 4 hours while awake.



Medical interventions to prevent recurrent UTIs:

- Antibiotic prophylaxis has been shown to help prevent recurrence of uncomplicated bladder infections
  - Antibiotics are dosed continuously, post-coital (after sex) dosing, or intermittent self-treatment based on symptoms.
  - This therapy can contribute to bacterial resistance to antibiotics often referred to as “collateral damage.” Your doctor will discuss the risk and benefits with you.
- Replacement topical estrogen in postmenopausal women normalizes the vaginal flora and has been shown to reduce the risk of UTI.
- Identifying and reversing mechanical, and/or physiological factors that affect bladder function. For example, if you have kidney stones, removal of the stones may decrease the incidence of UTI.

Interventions **not** shown to be helpful:

- Cranberry juice has unproven benefit, but drinking cranberry juice is not likely harmful in moderation.
- Methenamine hippurate (urex) can be used safely for a maximum of 1 week. This medication is converted into formaldehyde, which is considered a carcinogen; therefore, in general, it is not recommended for long term use.

If you are having symptoms of a UTI **and** you have previously seen a provider at the Beacon Center for UTIs, you should call the clinic and ask for the Triage nurse. (S)he will ask you about your symptoms and determine if a urine sample should be collected or if you should see a provider urgently. If you have not been previously seen by a provider at Beacon Center, please ask your physician for a referral.