

Bladder Infections

Bladder Infections have a way of getting your attention. You make countless trips to the bathroom, and still you feel like you have to go again. And once you're in there, instead of mindlessly going about your business, you feel burning or stinging every time you urinate.

When you get a bladder infection, it leads to cystitis, which is when your bladder swells and gets irritated. A urinary tract infection (UTI) occurs when one or more parts of the urinary system (kidneys, ureters, bladder, or urethra) become infected with a pathogen (most frequently, bacteria). UTIs most commonly occur in females; about 50% of all females get a UTI during their lifetime. Many UTIs are not serious but if infection reaches the kidneys, serious illness, and even death, can occur.

Symptoms of Lower urinary tract infection

- Bladder (cystitis): The lining of the urethra and bladder becomes inflamed and irritated
- Dysuria: pain or burning during urination
- Frequency: more frequent urination (or waking up at night to urinate, sometimes referred to as nocturia); often with only a small amount of urine
- Urinary urgency: the sensation of having to urinate urgently
- Cloudy, bad-smelling, or bloody urine
- Lower abdominal pain or pelvic pressure or pain
- Mild fever (less than 38.3 C), chills, and "just not feeling well" (malaise)
- Urethra (urethritis): Burning with urination

Urine colour and clarity

A UTI may be associated with a change in the appearance and odour of urine. Urine may be cloudy due to pus or tinged red due to blood. It's not uncommon for urine to be foul-smelling with a UTI.

Symptoms of Upper urinary tract infection (pyelonephritis)

Symptoms develop rapidly and may or may not include the symptoms for a lower urinary tract infection.

- Fairly high fever (higher than 38.3 C)
- Shaking chills
- Nausea
- Vomiting
- Flank pain: pain in the back or side, usually on only one side at about waist level
- Men and women with UTIs may experience pain in certain areas. In men affected by UTIs, pain or a feeling of pressure may occur in the rectum. In women with UTIs, the pubic bone area is potentially painful
- Hesitancy to urinate
- An inability to completely empty the bladder can be a symptom of a UTI. Difficulty urinating or a strong urge to urinate accompanied by just a small release of urine are also potential symptoms of a UTI

Some bladder infections do not resolve and get worse with the pathogens moving up (retrograde) the ureters to the kidneys. Symptoms may include those listed but often include other symptoms such as pain in the lower back (flank pain on one or both sides), fever, chills, and nausea and/or vomiting.

What Are the Possible UTI Complications

There are two major complications of UTIs. The first is infection spread to one or both kidneys. If the infection continues, kidney function can be damaged and result in kidney failure or complete loss of kidney function. The second complication is that the infecting organisms occasionally enter the bloodstream and may infect other organs or, rarely, cause sepsis and death.

In newborns, infants, children, and elderly people, the classic symptoms of a urinary tract infection may not be present. Other symptoms may indicate a urinary tract infection.

Newborns: fever or hypothermia (low temperature), poor feeding, jaundice

Infants: vomiting, diarrhea, fever, poor feeding, not thriving

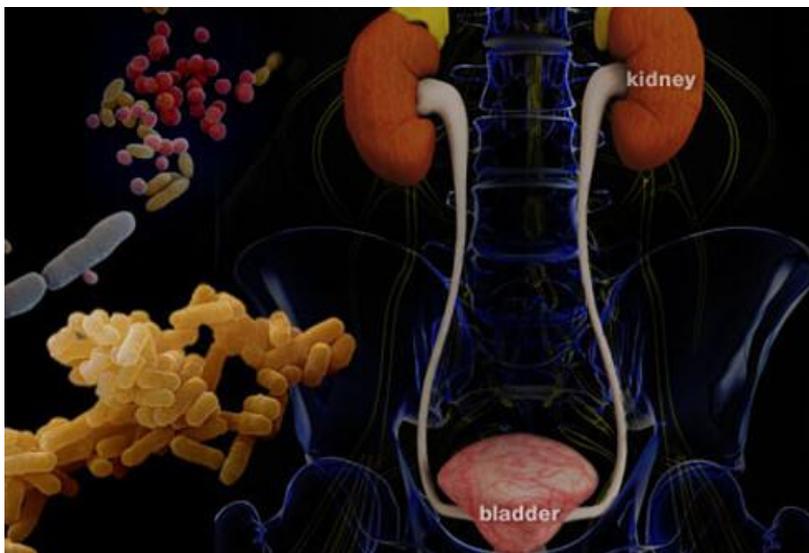
Children: irritability, eating poorly, unexplained fever that doesn't go away, loss of bowel control, loose bowels, change in urination pattern

Elderly people: fever or hypothermia, poor appetite, lethargy, change in mental status

The kidneys are a pair of small organs that lie on either side of the spine at about waist level. They have several important functions in the body, including removing waste and excess water from the blood and eliminating them as urine. These functions make them important in the regulation of blood pressure. Kidneys are also very sensitive to changes in blood sugar levels and blood pressure and electrolyte balance. Both diabetes and hypertension can cause damage to these organs.

Two ureters, narrow tubes about 10 inches long, drain urine from each kidney into the bladder.

The bladder is a small saclike organ that collects and stores urine. When the urine reaches a certain level in the bladder, we experience the sensation that we have to void, then the muscle lining the bladder can be voluntarily contracted to expel the urine.



The urethra is a small tube connecting the bladder with the outside of the body. A muscle called the urinary sphincter, located at the junction of the bladder and the urethra, must relax at the same time the bladder contracts to expel urine.

Women get bladder infections much more than men do. Usually, the infections are more annoying than they are serious, and antibiotics are the treatment. But they can travel up the ureters to the kidneys and cause more severe problems, so it's important to treat them right away.

The urine is normally sterile. An infection occurs when bacteria get into the urine and begin to grow. The infection usually starts at the opening of the urethra where the urine leaves the body and moves upward into the urinary tract. The culprit in at least 90% of uncomplicated infections is a type of bacteria called *Escherichia coli*, better known as *E. coli*. These bacteria normally live in the bowel (colon) and around the anus. These bacteria live on your skin and in your intestines and most of the time, they're not a problem. Everyone has them. These bacteria can move from the area around the anus to the opening of the urethra. Usually, the act of emptying the bladder (urinating) flushes the bacteria out of the urethra. If there are too many bacteria, urinating may not stop their spread, they end up in the bladder and cause an infection.

You might be wondering, if the bacteria are in my urine, why doesn't my body simply flush them out when I urinate?

As it turns out, the cell walls of each *E. coli* are covered with tiny fingerlike projections called fimbria allowing them to "stick" to the inner walls of your bladder and even work their way upward to your ureter and kidneys. Because they cling to your urinary organs, they can't simply be washed out. These little fingerlike projections are made of an amino acid-sugar complex, a glycoprotein called lectin, which makes them sticky.

Lectin on the bacteria's fimbria binds to mannose, which is produced by your cells and covers the internal lining of your urinary organs. This mannose allows the bacteria to adhere to you—like Velcro.

The following people are at increased risk of urinary tract infection:

- People with conditions that block (obstruct) the urinary tract, such as kidney stones (causes slowing or partial blockage of urine flow)
- People with medical conditions that cause incomplete bladder emptying (for example, spinal cord injury)
- Not drinking enough fluids (slows the wash of pathogens out of the body)
- Taking frequent baths (soaking in fluid that may promote retrograde infections)
- Waiting to urinate (promotes retrograde bacterial movement)
- Postmenopausal women: Decreased circulating estrogen makes the urinary tract more vulnerable to a UTI
- People with suppressed immune systems: Examples of situations in which the immune system is suppressed are HIV/AIDS and diabetes
- People who take immunosuppressant medications such as chemotherapy for cancer also are at increased risk
- Women who are sexually active: Sexual intercourse can introduce larger numbers of bacteria into the bladder. Urinating after intercourse seems to decrease the likelihood of developing a urinary tract infection
- Women who use a diaphragm for birth control
- Men with an enlarged prostate: Prostatitis or obstruction of the urethra by an enlarged prostate can lead to incomplete bladder emptying, thus increasing the risk of infection. This is most common in older men.

Males are also less likely to develop UTIs because their urethra (tube from the bladder) is longer.

What Are Symptoms of Urinary Tract Infection in Men

Adult men have infrequent UTIs; if they get a UTI there usually is an underlying cause (for example, having an enlarged prostate or kidney stone or being an elderly person with a catheter).

Bladder infections are more common in women than men for several reasons.

A woman's urethra is shorter than a man's, and it's close to the vagina and anus, where bacteria live. Having sex, wiping from back to front after you go to the bathroom, putting in a tampon, and using a diaphragm for birth control are all ways bacteria can get in.

During pregnancy, the baby can press on your bladder, which prevents it from emptying completely and gives bacteria a place to thrive.

After menopause, women have less of the hormone estrogen. That causes the lining of the urethra to get thinner and may change the balance of bacteria in the vagina, making infections more likely.

UTI's in Children

Urinary tract infections are much more common in adults than in children, but about 1%-2% of children do get urinary tract infections. Urinary tract infections in children are more likely to be serious than those in adults (especially in younger children).

Urinary tract infection is the most common urinary tract problem in children besides bedwetting. Urinary tract infection is second only to respiratory infection as the most common type of infection.

Young children: Young children have trouble wiping themselves and washing their hands well after a bowel movement. Poor hygiene has been linked to an increased frequency of urinary tract infections.

Children of all ages: Urinary tract infection in children can be (but is not always) a sign of an abnormality in the urinary tract, usually a partial blockage. An example is a condition in which urine moves backward from the bladder up the ureters (vesicoureteral reflux).

Infants and young children may develop classic UTI symptoms but are unable to communicate them to anyone. However, signs of UTI in children may include fever, odd-smelling urine, decreased food intake, vomiting, abdominal discomfort, and fussy behaviour. Early treatment of UTIs in children helps prevent kidney damage.

Note - Breastfeeding has been found to decrease the risk for urinary tract infections in children.

How Does Urinary Tract Infection Affect Children

About 1% of boys and 3% of girls have UTIs before puberty. Some of these children have structural problems in their urinary tracts that allow retrograde flow to easily occur thus giving bacteria an easy route to the kidneys. A pediatric urologist is usually consulted for evaluation and treatment. Other children may delay urination and some may not relax their muscles enough to completely empty their bladder. These children may be helped by increased fluid intake and encouraging more bathroom trips.

Children should use **Barleylife** DAILY to help prevent Bladder Infections.

Hospitalized patients or nursing-home residents

Many of these individuals are catheterized for long periods and are thus vulnerable to infection of the urinary tract. Catheterization means that a thin tube (catheter) is placed in the urethra to drain urine from the bladder. This is done for people who have problems urinating or cannot reach a toilet to urinate on their own.

Patients using catheters: If a patient is required to empty their bladder using a catheter, they are at increased risk for infection.

How Does Urinary Tract Infection Affect the Elderly

UTIs in the elderly are common in both men and women. Although they may have symptoms commonly associated with UTIs, often UTI symptoms in elderly individuals are different. They may

show only symptoms of agitation, delirium, confusion and/or behavioural changes. The elderly are at higher risk of developing complications such as kidney infections or sepsis from UTIs. Urinary tract infections have the potential to make these vulnerable people very ill when the bacteria spread into the bloodstream.

Elderly people should use **Cranverry+** and Barleylife DAILY to help prevent Bladder Infections from occurring.

In the case of a serious infection any adult or child needs to be evaluated by a medical professional, preferably within 24 hours. Most medical offices can test urine for infection by using a quick urine "dipstick" test. Only a few minutes are needed to obtain results. Your health-care provider may also send a urine sample to the lab for culture testing. These results take a few days to come back. This tells the doctor the exact bacteria causing the infection and to which antibiotics these bacteria have resistance or sensitivity. The culture is usually sent for special populations, including men, because they are less likely to get UTIs. It is not necessary to send a culture for everyone because the majority of UTIs are caused by the same bacteria.

In certain circumstances, urine also may be "cultured." This means that a small amount of the urine is brushed on a sterile nutrient substance in a plastic plate. The plate is allowed to sit for a few days and then examined to see what kind of bacteria are growing on it. Blood tests usually are not required unless a complicated condition, such as pyelonephritis or kidney failure, is suspected.

For a culture specimen, the patient will be asked to give a clean-catch, midstream urine specimen. This avoids contamination of the urine with bacteria from the skin. Patients will be instructed in how to do this. Midstream means urinating a little into the toilet before collecting a specimen. The idea is to avoid collecting the urine that comes out first, as this urine is often contaminated. Clean-catch refers to a midstream sample that was collected after cleaning the area of the urethral opening. Adult women and older girls: Cleanse the area around the urethral opening gently (but completely) using a sterile wipe or soap and water. Catch the urine midstream. For some women, catheterization (inserting a tube into the bladder) may be the only way to obtain a sterile, uncontaminated specimen. Men will most likely require a rectal examination so that the prostate can be checked. In some cases, an imaging test may be indicated to detect any underlying problem in the urinary tract that could cause an infection eg Ultrasound, Cytoscopy or CT Scan etc.

If someone has symptoms of a lower urinary tract infection and any of the following applies, he or she may be at risk for complications of the urinary tract infection.

- Vomiting and inability to keep down clear fluids or medication
- Not better after taking antibiotics for two days
- Pregnant
- Having diabetes or another disease that affects the immune system
- Taking medication that suppresses the immune system such as cancer chemotherapy

UTI vs Diabetes

People who have diabetes are at higher risk for UTIs because the high sugar (glucose) levels in the blood can result in high sugar levels in the urine and result in a good growth environment for bacteria. People who have diabetes often have an immune system that does not respond as well to infections. Diabetes can damage nerves that result in incomplete bladder emptying thus encouraging bacterial survival and retrograde infections.

Diabetics should use **Barleylife**, **Glucochrom** and **Cranverry+** DAILY to help prevent Bladder Infections.

Home Remedies for UTI's

There are a variety of self-care measures (home remedies) and other treatments available for urinary tract infections.

- Use a hot-water bottle to ease pain
- Drink plenty of water
- Avoid coffee, alcohol, and spicy foods, all of which irritate the bladder
- Cranberry juice can help fight a urinary tract infection. The MOST AMAZING Product for UTI infections – **CranVerry+**. Some studies suggest cranberry juice may help prevent UTIs because there is some evidence cranberry juice interferes with *E.coli* attaching to the bladder wall.
- **Florafood** - probiotics have been found to be beneficial in reducing the occurrence of UTIs
- Women and girls should wipe from front to back (not back to front) after bowel movements. This helps prevent bacteria from the anus entering the urethra
- Empty the bladder regularly and completely, especially after sexual intercourse
- If not treated promptly, urinary tract infections can cause permanent scarring of the urinary tract
- Don't "put off" going to the restroom (don't delay urination)
- Don't use feminine hygiene sprays
- Take showers instead of baths

Antibiotic resistance

Western medicine has traditionally treated UTIs with antibiotics, but bacterial resistance to these antibiotics has become an increasing problem. More than 20 percent of *E. coli* is now resistant to the most common antibiotics. Fortunately, new research indicates that cranberry can help prevent and treat UTIs. due to its ability to keep pathogens from adhering to the walls of the urinary tract. These pathogens can then be flushed out in the urine, and urinary health is maintained. The specific phytonutrient in cranberries that performs this role is proanthocyanidin (PACs) compounds. PACs are chains of flavonoids, which are phytonutrients that have an array of health benefits, and while other fruits carry these same compounds, only the PACs in cranberries and blueberries have been shown to have the stick-free effect on urinary bacteria.

Use CranVerry+ for UTI's

Anthocyanins are believed to be part of the flavonoids that make up the chain of proanthocyanidins. Anthocyanins are the water soluble portion of the plant cell that transmits pigments that appear red, purple, or blue. A recent study has shown that the amount of **cranberry extract in one capsule of CranVerry+** has the equivalent anthocyanin content of seven eight-ounce glasses of cranberry juice cocktail. CranVerry+ contains 500 mg of CranMax® cranberry extract per capsule. The extract is derived from the whole berry, including solids, seeds, skins, and concentrated juices. Through clinical studies, CranMax has been shown to be absorbed in the lower intestines where anthocyanins are released and absorbed by the body over a twelve to sixteen hour time period. It takes thirty-four pounds of raw cranberry material to produce a single pound of CranMax natural cranberry.

The ingredients of CranVerry+ can benefit the urinary tracts for both men and women.

How to use

- Take one capsule daily for maintenance
- For serious infection you may take more. Some take five caps per day

- Best taken with food
- Keep out of reach of children. Pregnant or nursing women should consult with a physician prior to use.

Consider Using Florafood Daily

The probiotics in FloraFood taken before, during, and after a course of antibiotics may help to prevent an increase in Candida cells. These probiotics have also been found to be beneficial in reducing the occurrence of UTIs.

Can I take CranVerry+ in conjunction with Florafood?

Yes, CranVerry+ can be used in combination with all AIM products, excluding AIM FloraFood. The enzyme beta-glucanase may reduce the viability of the probiotics found in FloraFood. Please take these products at alternating meals.

Bear Paw Garlic also has antifungal properties that may inhibit Candida growth. Other products to help provide support for those with urinary tract and candida infections include Herbal Fiberblend and Proancynol 2000.

Medical Intervention / Medical Treatment

The usual treatment for both simple and complicated urinary tract infections is antibiotics. The type of antibiotic and duration of treatment depend on the circumstances. In some cases it is beneficial to get antibiotics straight away.

WARNING - More than 20 percent of *E. coli* is now resistant to the most common antibiotics.

Disclaimer: *I am not a doctor, nor do I claim to be one. I cannot treat, cure, prevent or diagnose any illness. If you have concerns about any sickness, talk to your family physician. Do your own research on natural remedies to ensure that you think they are safe.*

Contact:

Madaleine Helm

083 445 0951

info2health@vodamail.co.za