

Newsletter

URINARY TRACT INFECTIONS (CYSTITIS)

Compiled by: Cerballiance Editorial Board

URINARY TRACT INFECTION IN A NUTSHELL

Urinary tract infection is more often encountered in women than in men. About 50% of women have at least one episode of Cystitis in their lifetime. It is a medically benign condition. Its diagnosis and antibiotic treatment are in principle simple. The Cytobacteriological examination, is the examination of choice for the Urinary Tract Infection but also to identify the germ in question and to define the most suitable Antibiotic treatment for one. Urinary Tract Infections are one of the most frequently encountered infections in the laboratory.

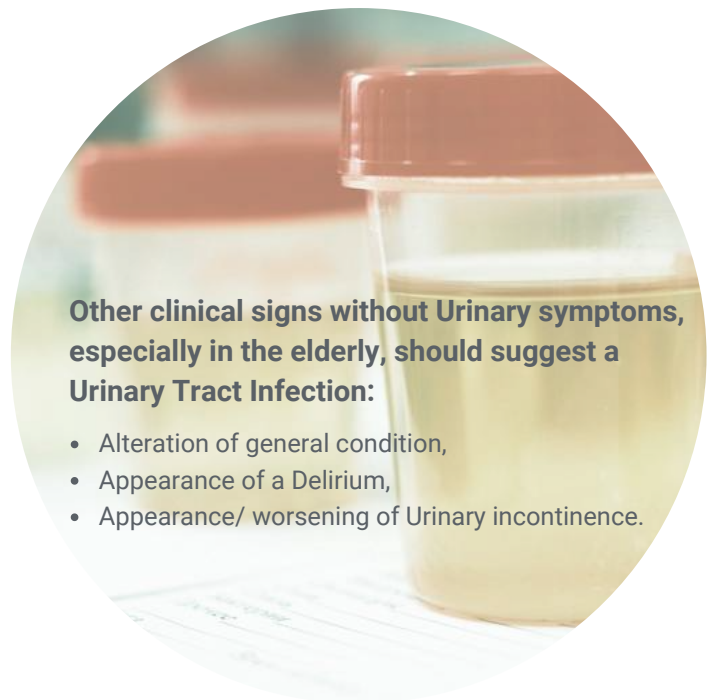
What is a Urinary Tract Infection?

- A Urinary Tract Infection corresponds to the aggression of the urinary tract by a bacterium, which generates an inflammatory reaction and signs and symptoms of variable nature and intensity depending on the person.
- Depending on the location, it corresponds to:
 - **Cystitis:** infection in the Bladder
 - **Urethritis:** infection in the Urethra
 - **Pyelonephritis:** infection in the Kidney
 - **Prostatitis:** infection in the Prostate
- Different germs are responsible for Urinary Tract Infections. Among the most common are:
 - **Escherichia coli**
 - **Proteus mirabilis**
 - **Enterococcus, Staphylococcus...**



What are the signs of a Urinary Tract Infection?

- The diagnosis of Urinary Tract Infection should be considered in case of obvious urinary signs:
 - Burning when urinating,
 - Frequent urge to urinate, these 2 signs evoking acute **Cystitis**.
 - Their association with lumbar pain and fever $>38^{\circ}\text{C}$ is then in favour of acute **Pyelonephritis**.



Other clinical signs without Urinary symptoms, especially in the elderly, should suggest a Urinary Tract Infection:

- Alteration of general condition,
- Appearance of a Delirium,
- Appearance/ worsening of Urinary incontinence.

How to diagnose it?

The Cytobacteriological examination of the urine (**ECBU**) is the most common laboratory examination and is simple to perform, but it requires the collection of a certain amount of clinical information essential to the interpretation of the result, in particular, the presence of factors of associated risk:

- **Elderly,**
- **Male,**
- **Recent intervention on the urinary tract,**
- **Urinary tract abnormalities,**
- **Diabetes,**
- **Pregnancy,**

In the case of simple acute Cystitis, that is to say, without associated risk factors, the **urine dipstick**.

(At the doctor's office or at the patient's bedside.)

This is a rapid orientation test which makes it possible to exclude an infection. If your test results are negative.

In other cases, and if the urine dipstick is positive, an ECBU will be necessary: It confirms you have an Urinary infection, this identifies the germ in question and determines the treatment to be started. All these steps require at least 48 hours.



How do avoid them?

Here are some tips to follow:

1. Drink water regularly throughout the day at least 1.5l per day
2. Empty the bladder frequently and completely to prevent urine from stagnating
3. Urinate immediately after sex
4. Wipe from front to back with toilet paper
5. Fight against constipation

Can Children get UTI's?

Yes, the symptoms are the same as in adults.

In small children and infants, the signs of a urinary tract infection are particularly difficult to detect.

Some may alert you:

- loss of appetite,
- Unusually frequent crying
- Fever with no other point of appeal
- smelly urine

If your child has a UTI?

UTIs in children can be linked to:

- Voluntary retention (out of shyness the children do not dare to go to the toilet during the school period),
- Insufficient hydration
- A tendency to constipation.

However, a functional anomaly of the urinary tract must not be ruled out (Urethral stricture or Ureter valve abnormalities).

References:

1. Update on Vitamin D from Cerba Healthcare, [Accessed on 17 September.]

What is the treatment?

- There is urinary colonization that is not an infection, i.e. in some people, there are bacteria without clinical signs of infection. This is called Asymptomatic bacteriuria.
- Asymptomatic bacteriuria will not be treated except in pregnant women.
- A urinary tract infection is treated by taking an antibiotic prescribed by your doctor. The duration and choice of antibiotic depending on the type of infection and the patient's profile.
- The ECBU must imperatively be carried out before taking any antibiotic treatment to avoid distorting the results of the examination.
- This treatment can be taken without waiting for the result of the ECBU but must be adapted if necessary, according to the results of the examination by your doctor.



What is the treatment for pregnant women with a UTI?

- It is recommended to search for Asymptomatic Bacteriuria by means of a urine dipstick once a month from the 4th month.
- In the event of a positive result, an ECBU will be performed.
- This Asymptomatic Bacteriuria leads to an increased risk of Pyelonephritis in Pregnant women due to certain contributing factors: the pressure of the baby on the Urinary tract, reduction in the Bactericidal activity of urine, etc.

