

# **Urinary Tract Infections**

#### **Overview:**

- Urinary tract infections start with the lower urinary section and may reach the kidneys.
- Women are more at risk than men.
- Infection is caused by the transmission of bacteria from the anus or urinary catheter into the urethra.
- Kidney stones and female contraceptives may cause urinary tract infections.
- Rarely causes complications if properly treated.
- Drinking plenty of water is the most important step to prevent urinary infections.

#### Introduction:

The urinary system is divided into two parts: Upper and lower, from the kidneys to the ureter are known as the upper urinary section, and from the bladder to the urethra (urethra) is called the lower urinary section.

#### **Urinary tract infections:**

A common bacterial infection of the lower urinary section. It can infect the entire urinary system all the way to the kidneys, and can affect all age groups, but women are more likely than men to shorten the urethra. Half of women may develop urine infections at least once during their lifetime.

#### Types of urinary tract infections:

- Inflection of the urinary tract (Urethritis) only.
- Inflammation reaching the bladder.
- Inflammation reaching the kidney.



### **Causes:**

Infection is often caused by the transmission of bacteria from the anus or urinary catheter, for example, into the urethra.

# Symptoms:

UTIs are usually not accompanied by symptoms, but if they do, they include:

- The sudden and strong need to urinate.
- Burning sensation when urinating.
- Frequent urination but in small amounts.
- discoloration of the urine, presence of blood and strong odor.
- Pelvic pain (in women).

### Symptoms may vary depending on the type of inflammation:

Inflection of the urinary tract (Urethritis) only.	Inflammation reaching the bladder.	Inflammation reaching the kidney.
<ul> <li>A burning sensation during urination and discharge may appear.</li> </ul>	<ul> <li>Pelvic pain.</li> <li>Lower abdomen pain</li> <li>Frequent urination with pain.</li> <li>Blood with urine</li> </ul>	<ul> <li>Upper back and sides pain .</li> <li>Fever.</li> <li>Chill and trembling</li> <li>Nausea and vomiting.</li> </ul>

#### When to see a doctor:

- The symptoms are similar to cystitis and above (upper part).
- If the symptoms are severe and worsen further
- In case of frequent infections

#### **Diagnosis:**

• Diagnosis is made by taking a medical history and clinical examination. It may also require medical procedures to check for inflammation and



exclude other diseases, such as urine analysis and urine culture to determine the type of bacteria.

- Diagnosis may also require radiographs to make sure the urinary system is safe and free of stones.
- Examination of the bladder using the endoscope to ensure its health.

### **Risk factors:**

- Obstruction of the urethra due to the presence of kidney stones.
- Difficulty emptying urine completely.
- Contraceptive devices in women.
- Urine catheter
- Enlarged prostate in males: prevents the emptying of urine completely and affects the direction of urine

#### Most vulnerable groups:

- Pregnant women.
- Diabetics.
- People with deficiency in the immune systems.
- Children, especially those born with congenital problems in the urethra.
- Kidney transplant patients

# **Complications:**

Rarely causes complications if the inflammation is properly treated. Otherwise, it may cause the following complications:

- frequent infections
- Permanent kidney damage
- In pregnant women the risk of premature birth may increase.
- Urethral narrowing in men in case of repeated infection.
- May lead to septicemia.



# **Treatment:**

Urinary tract infections are treated with antibiotics based on the decision of the attending physician as well as pain relievers.

# **Prevention:**

- Ensure that the patient drinks plenty of fluids.
- Keep the area clean and sterilized and keep away from scented sterilizers.
- Use the toilet immediately when you feel the urge to urinate.
- For women, stay away from contraceptive devices and replace them with chemical means such as medicines.
- The cleaning process should be from front to back after urinating or defecating.
- Empty the bladder after having sex.

# **Frequently Asked Questions:**

# 1. Does cranberry juice or capsules prevent urinary tract infections?

Cranberries change alkaline urine making it more acidic, so one theory says that some (but not all) bacteria that multiply in an alkaline environment may be less capable of multiplying. Some minor studies suggest that it may reduce infections, but scientific evidence of its effectiveness does not exist.

# **Misconceptions:**

# Only women get urinary tract infections

Everyone is prone to get it, including men and children, but women are more likely.

# **Clinical Health Education Department**

For more information, please contact us by email

Hpromotion@moh.gov.sa