CONDITION

Cystitis - acute

Acute cystitis is a sudden inflammation of the bladder, usually caused by a bacterial urinary tract infection.

WHAT IT IS
Sudden inflammation and infection of the bladder

BODY SYSTEM
Urinary system

MAIN SYMPTOMS
Burning urination, urgency, frequency, lower abdominal discomfort

WHAT CAUSES IT
Usually a bacterial infection

HOW IT IS DIAGNOSED
Symptoms and urine testing, with culture when needed

MAIN TREATMENT
Antibiotics and symptom relief

CAN IT BE CURED?
Yes - most infections clear with treatment

IS IT AN EMERGENCY?
Sometimes - confusion, fainting, or breathing difficulty

LONG-TERM OUTLOOK
Usually clears without lasting bladder damage

Overview

Acute cystitis is sudden inflammation of the bladder. It is usually caused by bacteria and is a type of urinary tract infection, often shortened to UTI.

The bladder stores urine before it leaves your body. When bacteria enter and multiply in the bladder, its lining becomes irritated. This can cause burning when you urinate, a strong need to go, and discomfort low in your abdomen.

Most episodes are limited to the bladder and clear without lasting harm. Treatment matters because symptoms can be uncomfortable and, in some cases, infection can travel upward to the kidneys. Pregnant people, children, men, and people with certain health conditions may need earlier assessment because their infection may require different testing or management.

"Acute" means that symptoms started recently. It does not mean that the condition is automatically severe or an emergency.

Symptoms

Symptoms often develop over hours or a few days. Common symptoms include:

Urine colour or smell alone does not confirm cystitis. These changes can also happen when you are dehydrated, after eating certain foods, or because of medicines.

Cystitis usually does not cause vaginal discharge, vaginal irritation, or genital sores. Those symptoms may suggest another cause, such as a vaginal infection or a sexually transmitted infection.

Fever, chills, pain in your side or back, nausea, or vomiting are not typical of an infection confined to the bladder. They may mean that infection has reached a kidney and need prompt medical assessment.

Older adults may have less specific symptoms. However, confusion by itself does not prove that a UTI is present. Other causes, including dehydration, medication effects, and different infections, also need consideration.

- Burning, stinging, or pain when urinating
- Needing to urinate more often than usual
- A sudden, difficult-to-delay urge to urinate
- Passing only small amounts of urine
- Pressure, aching, or discomfort above the pubic bone
- Cloudy, unusually strong-smelling, or blood-stained urine

Causes and risk factors

Most acute cystitis is caused by bacteria from the bowel entering the urethra, the tube that carries urine out of the body. The most common cause is Escherichia coli , usually called E. coli .

People with a shorter urethra are more likely to develop cystitis because bacteria have less distance to travel to reach the bladder. Sexual activity can move bacteria toward the urethra, but cystitis is not usually sexually transmitted or passed between partners.

Factors that can make cystitis more likely include:

Cystitis is not necessarily caused by poor hygiene. Washing more aggressively will not treat it

and may irritate the genital area.

- A previous UTI
- Sexual activity or use of spermicide
- Pregnancy
- Menopause, when lower oestrogen levels change tissues around the urethra
- Difficulty emptying the bladder fully
- Kidney or bladder stones
- An enlarged prostate
- A urinary catheter
- Abnormalities of the urinary tract
- Diabetes, especially when blood glucose is poorly controlled
- Medicines or conditions that weaken the immune system

Diagnosis

A clinician may diagnose acute cystitis from your symptoms, medical history, and risk factors. In a nonpregnant adult with typical symptoms and no warning signs, extensive testing may not be necessary.

A urine dipstick can look for substances associated with inflammation or bacteria. It supports the diagnosis but is not perfect. A positive result does not always mean that symptoms are caused by infection, and a negative result does not exclude every UTI.

A urine culture is the clearest way to identify bacteria in urine. A laboratory grows the bacteria and may test which antibiotics like amoxicillin or doxycycline are likely to work. Results usually take longer than a dipstick.

A culture is particularly useful when symptoms are unusual, keep returning, fail to improve, or occur during pregnancy. It is also commonly used for suspected infection in men, children, or people at increased risk of complications.

Other tests are not normally needed for a single straightforward episode. Imaging or examination may be considered if there could be a stone, blockage, kidney infection, prostate problem, or another explanation for the symptoms.

Treatment and management

Bacterial cystitis is commonly treated with a short course of antibiotics. The antibiotic selected may be influenced by pregnancy, allergies, kidney function, previous culture results, local antibiotic resistance, and whether the infection is considered complicated.

Take an antibiotic exactly as directed and complete the advised course unless a clinician tells you to stop or change it. If a urine culture later shows that the bacteria are resistant, you may be contacted about changing treatment.

For some nonpregnant women with mild symptoms and no higher-risk features, a clinician may discuss waiting briefly or using a back-up antibiotic prescription. This approach is not suitable for everyone.

While recovering, you can:

Cranberry products and urine-alkalising products are not substitutes for antibiotics when antibiotics are needed. Evidence that they relieve an active infection is limited.

Symptoms often begin to improve within a few days of effective treatment. Seek follow-up if they are not improving, become worse, or return soon after treatment.

- Drink enough fluid to avoid dehydration, without forcing excessive amounts
- Use a warm pack over the lower abdomen if it feels soothing
- Consider a suitable nonprescription pain reliever after checking the label and any health restrictions
- Rest if pain or urinary frequency is disrupting normal activities

Complications

Most bladder infections clear without complications.

The main concern is infection spreading to one or both kidneys. This is called pyelonephritis. It may cause fever, chills, pain in the side or back below the ribs, nausea, or vomiting. Kidney infection generally needs prompt antibiotic treatment and sometimes hospital care.

Rarely, infection can enter the bloodstream and cause sepsis, a dangerous whole-body response to infection. The risk is higher in people who are frail, immunocompromised, pregnant, or living with urinary blockage or serious kidney problems.

In pregnancy, a UTI needs treatment because it is more likely to progress to kidney infection and can affect the pregnancy. In men, urinary symptoms may sometimes involve the prostate or reflect difficulty emptying the bladder.

Visible blood can occur with cystitis. Blood that remains after the infection has cleared, repeatedly returns, or occurs without typical infection symptoms needs separate assessment.

Prevention

Not every episode of acute cystitis can be prevented. Some people develop it despite having no clear risk factors and following sensible bladder habits.

Measures that may help include drinking enough to prevent dehydration and avoiding long delays when you need to urinate. If spermicide appears linked to repeated infections, discussing another form of contraception may be useful.

Urinating soon after sex is safe, but evidence that it reliably prevents UTIs is limited. Douching, scented washes, and harsh cleansing are unnecessary and can cause irritation.

If infections repeatedly follow sex or occur frequently, a clinician can confirm whether they are true bacterial infections and discuss preventive options. Depending on your situation, these may include vaginal oestrogen after menopause or preventive antibiotics. These treatments require an individual assessment and are not appropriate for everyone.

Cranberry products may reduce recurrences for some people, but research results are mixed and products differ. They do not treat an infection that is already present.

Living with it and what to expect

A single episode usually improves over several days and does not leave permanent bladder damage. Urgency and burning may take a little time to settle even after treatment begins.

Some people never have another episode. Others have occasional or repeated infections over months or years. Recurrence does not automatically mean that the first infection was treated incorrectly. New bacteria can enter the bladder and cause a separate episode.

Repeated symptoms deserve reassessment rather than repeated treatment based only on assumptions. A urine culture can help confirm infection. Conditions such as vaginal irritation, sexually transmitted infections, bladder pain syndrome, urinary stones, or prostate problems can cause similar symptoms.

Keeping a brief record of symptoms, urine culture results, treatments, and possible links with sexual activity can help identify a pattern. Most people can continue their usual work, exercise, and relationships once symptoms settle.

When to get medical help

Arrange prompt medical advice if you have typical cystitis symptoms and are pregnant, male, a child, or have kidney disease, diabetes, a urinary catheter, a weakened immune system, or known urinary tract problems.

Seek same-day medical assessment if you develop:

Get emergency help for severe breathing difficulty, fainting, extreme drowsiness, new severe confusion, mottled or unusually pale skin, or rapidly worsening illness. These can be signs of sepsis or another serious problem.

Routine follow-up is appropriate if symptoms have not started improving within about 48 hours of antibiotics, return soon after treatment, or keep recurring. Persistent blood in the urine also needs follow-up after the suspected infection has cleared.

- Fever, shaking chills, or feeling markedly unwell
- Pain in your side or back below the ribs
- Repeated vomiting or difficulty keeping fluids down
- Worsening symptoms despite treatment
- Inability to urinate
- Significant blood or blood clots in the urine

Common questions

Is acute cystitis the same as a UTI?

Cystitis is a type of UTI affecting the bladder. "UTI" is a broader term that can also include infection of the urethra, kidneys, or, in men, sometimes the prostate.

Can cystitis go away on its own?

Some mild bladder infections clear without antibiotics, especially in otherwise healthy nonpregnant women. It is difficult to predict which will do so. Symptoms that are severe, worsening, or linked to higher-risk circumstances need medical assessment.

Is cystitis contagious or sexually transmitted?

Ordinary bacterial cystitis is not considered contagious and is not usually passed to a sexual partner. Sexual activity can increase the chance of bacteria reaching the bladder. If there is discharge, sores, pelvic pain, or concern about sexual exposure, testing for sexually transmitted infections may be appropriate.

Why do I feel like I need to urinate when my bladder is empty?

Inflammation makes the bladder lining and its nerves more sensitive. This can create urgency even when the bladder contains very little urine. The sensation should ease as the inflammation settles.

Can I have sex while I have cystitis?

Cystitis itself is not usually passed to a partner, but sex may worsen pain and irritation. You may prefer to wait until symptoms have settled. If symptoms could be caused by a sexually transmitted infection, avoid sex or use barrier protection until you have been assessed.

Why does cystitis keep coming back?

Repeated episodes may be new infections rather than one infection that never cleared. Sexual activity, spermicide, menopause, incomplete bladder emptying, stones, and urinary tract problems can contribute. Culture testing can confirm whether bacteria are present and guide a prevention plan.

Sources

- National Institute for Health and Care Excellence. Urinary tract infection (lower): antimicrobial prescribing (NG109)
- European Association of Urology. EAU Guidelines on Urological Infections
- National Institute of Diabetes and Digestive and Kidney Diseases. Bladder Infection (Urinary Tract Infection) in Adults
- American College of Obstetricians and Gynecologists. Urinary Tract Infections in Pregnant Individuals: Clinical Consensus
- National Health Service. Urinary tract infections (UTIs)
- Centers for Disease Control and Prevention. About Sepsis