CONDITION

Reactive arthritis

Learn how arthritis urethritica, now usually called sexually acquired reactive arthritis, can affect the joints, urinary tract, eyes, and skin after an infection.

WHAT IT IS
Inflammatory arthritis after an infection

BODY SYSTEM
Joints and connective tissues

MAIN SYMPTOMS
Painful swollen joints, heel or sole pain, urinary burning or discharge, red irritated eyes

WHAT CAUSES IT
Immune response after infection

HOW IT IS DIAGNOSED
Clinical assessment and exclusion of other causes

MAIN TREATMENT
Antibiotics and anti-inflammatory treatment

CAN IT BE CURED?
Sometimes, many episodes improve over time

IS IT AN EMERGENCY?
Sometimes, hot extremely painful joint with fever

LONG-TERM OUTLOOK
Often improves within months but may recur or persist

Overview

Arthritis urethritica is an older term for arthritis that develops after urethritis, which is inflammation of the tube that carries urine out of the body. Today, clinicians usually call this condition reactive arthritis or, when it follows a sexually transmitted infection, sexually acquired reactive arthritis .

The term "Reiter syndrome" was also used in the past, but it is no longer preferred.

Reactive arthritis is an inflammatory response to an infection elsewhere in the body. The triggering infection is often in the genital or urinary tract, especially an infection caused by Chlamydia trachomatis . Some intestinal infections can also trigger reactive arthritis, although these cases would not traditionally have been called arthritis urethritica.

The joints usually do not contain the original bacteria. Instead, the immune system remains activated after the infection and causes inflammation in the joints or nearby tissues. This is different from septic arthritis, in which bacteria or another microorganism directly infects a joint.

Reactive arthritis matters because it can affect more than the joints. It may also cause inflammation in the eyes, skin, urinary or genital tract, and the places where tendons attach to bone. Symptoms often improve over time, but some people have repeated episodes or longer-lasting arthritis.

Early assessment helps identify the triggering infection, rule out a joint infection, and relieve inflammation. It also allows recent sexual partners to be tested and treated when appropriate.

Symptoms

Symptoms often begin within several days to a few weeks after an infection. The original infection may have caused only mild symptoms, or no noticeable symptoms at all.

Joint inflammation is usually asymmetric, meaning that it does not affect both sides of the body in the same way. It often involves a small number of joints in the lower body, such as the knees, ankles, feet, or toes.

Possible symptoms include:

Urethritis can cause burning during urination, discharge from the penis or vagina, or a need to urinate more often. An infection of the cervix may cause vaginal discharge, bleeding between periods, or pelvic discomfort. However, chlamydia and other sexually transmitted infections can be present without symptoms.

Eye symptoms may include redness, watering, irritation, or a gritty feeling. Mild conjunctivitis affects the eye's surface. Deeper inflammation, called uveitis, may cause eye pain, sensitivity to light, blurred vision, or reduced vision.

Some people develop painless mouth sores or skin changes. A scaly rash may appear on the soles, palms, or genital area. Not everyone develops the traditional combination of arthritis, urethritis, and eye inflammation. In fact, the full combination is not required for diagnosis.

A very painful, hot, swollen joint accompanied by fever or feeling seriously unwell needs emergency assessment. These symptoms may indicate septic arthritis, which requires prompt treatment. Eye pain, light sensitivity, or any change in vision also requires urgent same-day medical or eye care.

- Painful, swollen, warm, or stiff joints

- Heel or sole pain where tendons and ligaments attach to bone
- A swollen finger or toe, sometimes called a "sausage digit"
- Lower back or buttock pain caused by inflammation near the pelvis
- Pain or stiffness that is worse after rest
- Tiredness or a general feeling of being unwell

Causes and risk factors

Arthritis urethritica most often follows an infection of the genital or urinary tract. Chlamydia trachomatis is a well-recognized trigger. Other infections may cause urethritis, but joint symptoms after urethritis are not always reactive arthritis.

For example, gonorrhea can spread through the bloodstream and directly infect joints. Disseminated gonococcal infection may cause fever, skin spots, tendon pain, or one or more painful joints. Because its treatment differs from that of reactive arthritis, clinicians need to consider and test for it.

Reactive arthritis can also follow intestinal infections caused by bacteria such as Salmonella , Shigella , Campylobacter , or Yersinia . These infections more often begin with diarrhea, abdominal pain, or vomiting.

A genetic marker called HLA-B27 is associated with a greater chance of more severe or persistent reactive arthritis. However, many people with HLA-B27 never develop the condition, and many people with reactive arthritis do not have the marker. It is not a stand-alone diagnostic test.

Factors that may increase the chance of sexually acquired reactive arthritis include:

Reactive arthritis is not itself contagious. The infection that triggered it may be passed to another person.

- A recent chlamydial or other genital infection
- Sex without barrier protection
- A new sexual partner or multiple partners
- A previous episode of reactive arthritis
- A personal or family history of related inflammatory conditions, such as ankylosing spondylitis

Diagnosis

There is no single test that confirms reactive arthritis. Diagnosis is based on the pattern of symptoms, a recent infection, the physical examination, and tests used to exclude other causes.

A clinician may ask about recent urinary symptoms, genital discharge, sexual contact, diarrhea, travel, eye symptoms, skin changes, and family history. It is important to mention possible exposure to a sexually transmitted infection even if the earlier symptoms were mild or have already stopped.

The examination may assess:

Urine tests or swabs may be used for nucleic acid amplification testing, often called NAAT, for chlamydia and gonorrhea. Depending on symptoms and risk factors, testing for HIV, syphilis, or other infections may also be offered.

Blood tests can look for inflammation through C-reactive protein or the erythrocyte sedimentation rate. These results can support the assessment but cannot prove that reactive arthritis is present. HLA-B27 testing may be useful when symptoms are severe, affect the spine, or continue for a long time.

If a joint is significantly swollen, a clinician may remove a sample of joint fluid with a needle. This is called joint aspiration. The fluid can be tested for infection and for crystals that cause gout or similar conditions. Aspiration is particularly important when septic arthritis is possible.

X-rays may be normal early in the condition. Ultrasound or magnetic resonance imaging may help identify inflammation in tendons, joints, or the lower spine when the diagnosis remains uncertain.

Other conditions that can resemble reactive arthritis include septic arthritis, gout, psoriatic arthritis, rheumatoid arthritis, inflammatory bowel disease-related arthritis, and other forms of spondyloarthritis.

- Which joints are swollen or tender
- Tendon attachment points, especially around the heels
- The lower back and pelvic joints
- The eyes, skin, mouth, and genital area
- Signs of an active infection

Treatment and management

Treatment has two goals: manage any active infection and control inflammation. The plan depends on the suspected trigger, the joints or organs affected, and how long symptoms have been present.

An active chlamydial, gonococcal, or other bacterial infection is treated with an antibiotic like amoxicillin or doxycycline selected according to current clinical guidance and test results. Antibiotics treat the infection and help prevent transmission, but they do not provide immediate relief from immune-driven joint inflammation. The benefit of prolonged antibiotic treatment for established reactive arthritis remains uncertain and is not routine for everyone.

If a sexually transmitted infection is found, recent partners may need testing and treatment. A clinician or sexual health service can explain how long to avoid sexual contact and when repeat testing is recommended. Barrier methods, such as condoms, can lower the chance of another sexually transmitted infection.

Anti-inflammatory treatment may include a nonsteroidal anti-inflammatory drug like ibuprofen or naproxen , often shortened to NSAID. These medicines can reduce joint pain and swelling but are not suitable for everyone. Kidney disease, stomach ulcers, bleeding risk, heart disease, pregnancy, and interactions with other medicines may affect whether they can be used.

A corticosteroid injection into an inflamed joint or tendon area may be considered when one or a few areas are affected. Steroid tablets may sometimes be used for more widespread inflammation. Steroids like prednisone or hydrocortisone can affect blood sugar, infection risk, bone health, and other conditions, so their use requires clinical supervision.

Persistent arthritis may need specialist treatment from a rheumatologist. Disease-modifying antirheumatic drugs, such as sulfasalazine or methotrexate, may be considered when symptoms do not settle with initial treatment. Biologic medicines are reserved for selected cases with ongoing inflammatory disease. These treatments require monitoring and are not appropriate for every person.

Movement is an important part of recovery. During a painful flare, temporarily reducing high-impact activity may help, but complete rest can increase weakness and stiffness. A physiotherapist can suggest exercises to maintain joint movement, strengthen supporting muscles, and protect painful tendon attachments.

Helpful self-care may include:

Eye inflammation needs separate assessment. Simple conjunctivitis may settle, but uveitis requires urgent treatment from an eye specialist to protect vision. Skin or genital symptoms may be treated with topical medicines after evaluation.

- Using a cold pack for short periods on a swollen joint

- Wearing supportive footwear if the heels or feet are painful
- Returning to activity gradually as inflammation improves
- Avoiding smoking, which may worsen overall inflammatory and cardiovascular health
- Taking medicines only as directed and reporting side effects

Complications

Many episodes improve, but recovery can take weeks or months. Symptoms may return after they have settled, especially after another infection.

Possible complications include:

Medication side effects can also occur, particularly with longer-term anti-inflammatory or immune-suppressing treatment. Regular monitoring helps reduce these risks.

- Persistent or recurrent joint inflammation
- Long-term heel or tendon pain
- Chronic lower back or pelvic joint inflammation
- Reduced joint movement, strength, or ability to work and exercise
- Recurrent eye inflammation
- Eye damage if uveitis is not treated promptly
- Ongoing transmission or reinfection when the triggering sexually transmitted infection is not treated

Follow up

Follow-up depends on the severity and duration of symptoms. A routine review may check whether joint swelling is improving, whether an infection has cleared, and whether medicines are causing side effects.

Arrange a routine medical review if pain or stiffness is not improving, symptoms return, new joints become involved, or back pain continues. Referral to a rheumatologist may be appropriate when inflammation is severe, lasts for several months, or requires disease-modifying treatment. Persistent skin symptoms may need dermatology care.

Follow the testing and repeat-testing plan provided by the clinician or sexual health service. Complete any prescribed infection treatment, and make sure partners receive advice when

needed. A negative test after treatment does not necessarily mean joint inflammation will stop immediately, because the immune response can continue after the infection has cleared.

Seek urgent same-day care for:

Seek emergency care for a hot, extremely painful joint with fever or marked illness, especially if movement is suddenly difficult. This could be a direct joint infection rather than reactive arthritis.

- Eye pain, sensitivity to light, blurred vision, or reduced vision
- Rapidly worsening joint swelling or pain
- New difficulty passing urine
- Fever with a rash, tendon pain, or multiple painful joints

Sources

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