CONDITION

Rheumatoid arthritis

Learn about rheumatoid arthritis, including joint symptoms, causes, diagnosis, treatment, possible complications, and when to seek medical care.

WHAT IT IS
Long-term autoimmune inflammatory joint disease

BODY SYSTEM
Joints and immune system

MAIN SYMPTOMS
Joint pain, swelling, warmth, stiffness

WHAT CAUSES IT
Autoimmune, exact cause unknown

HOW IT IS DIAGNOSED
Joint examination, blood tests, sometimes imaging

MAIN TREATMENT
Disease-modifying antirheumatic drugs

CAN IT BE CURED?
No, treatment aims for remission

IS IT AN EMERGENCY?
Sometimes, severe trouble breathing or chest pressure

LONG-TERM OUTLOOK
Remission is possible, but permanent joint damage can occur

Overview

"Arthritic rheumatoid disease" is not a standard modern medical term. It is often used to mean rheumatoid arthritis , sometimes shortened to RA. Rheumatoid arthritis is a long-term autoimmune disease. This means the immune system mistakenly attacks healthy tissue.

RA mainly affects the synovium, the thin lining inside certain joints. The inflamed lining can cause pain, swelling, warmth, and stiffness. Over time, uncontrolled inflammation may damage cartilage and bone, change the shape of a joint, and reduce movement.

Rheumatoid arthritis often affects joints on both sides of the body. For example, both wrists or both hands may be involved. However, symptoms do not always follow this pattern, especially early in the disease.

RA is different from osteoarthritis. Osteoarthritis is mainly related to the gradual breakdown of joint cartilage. Rheumatoid arthritis is driven by inflammation from the immune system and may affect organs as well as joints.

Early assessment matters because treatment can reduce inflammation and help prevent permanent joint damage. Modern treatment usually aims for remission, meaning little or no active disease, or at least low disease activity. Symptoms can improve and worsen over time, and periods of increased activity are often called flares.

Symptoms

Rheumatoid arthritis can begin gradually or become noticeable over a shorter period. The small joints of the hands, wrists, and feet are commonly affected, but RA can also involve the elbows, shoulders, knees, ankles, hips, and neck.

Common symptoms include:

Morning stiffness from inflammatory arthritis often lasts longer than the brief stiffness associated with osteoarthritis. Still, the length of stiffness alone cannot confirm a diagnosis.

RA may also affect tissues outside the joints. Possible symptoms include dry or painful eyes, dry mouth, firm lumps under the skin called rheumatoid nodules, or numbness and tingling caused by pressure on a nerve. Inflammation can sometimes affect the lungs, heart, blood vessels, or blood cells.

These symptoms have many possible causes. Joint pain does not necessarily mean that a person has rheumatoid arthritis.

- Joint pain, swelling, warmth, or tenderness
- Stiffness after waking or after being still
- Reduced movement or difficulty using affected joints
- Symptoms affecting several joints, often on both sides
- Fatigue or an unusual lack of energy
- Low-grade fever, reduced appetite, or unintended weight loss
- Periods when symptoms worsen, followed by quieter periods

Causes and risk factors

The exact cause of rheumatoid arthritis is not fully understood. It appears to develop through a

combination of genetic susceptibility, immune-system changes, and environmental exposures.

Having certain genes can increase susceptibility, but genes do not determine with certainty whether RA will develop. Most people with a genetic risk do not develop the condition, and a family history is not required.

Factors associated with a higher likelihood of RA include:

Hormonal, infectious, and environmental factors are being studied. RA itself is not contagious and cannot be passed from one person to another.

Smoking is one of the most important changeable risk factors. For someone who already has RA, stopping smoking may also support overall treatment and lower heart and lung risks. A clinician can discuss counseling, medicines, and other forms of support for quitting.

- Having a close family member with rheumatoid arthritis
- Smoking cigarettes or having a history of smoking
- Being female, although people of any sex can develop RA
- Middle or older age, while recognizing that RA can begin at any age
- Certain occupational exposures, including prolonged exposure to silica dust
- Excess body weight, which may also make disease control more difficult

Diagnosis

There is no single test that proves or rules out rheumatoid arthritis. Diagnosis is based on the overall pattern of symptoms, a joint examination, blood tests, and sometimes imaging.

A clinician will ask when symptoms began, which joints are affected, how long stiffness lasts, and whether symptoms limit daily activities. The examination checks for swelling, tenderness, warmth, range of motion, and possible signs outside the joints.

Blood tests may include rheumatoid factor and anti-cyclic citrullinated peptide antibodies, usually called anti-CCP antibodies. These immune proteins can support a diagnosis, but they are not definitive. Some people with RA have neither antibody, while some people without RA may test positive.

Tests called erythrocyte sedimentation rate and C-reactive protein can show inflammation in the body. Normal results do not always exclude rheumatoid arthritis. A complete blood count may identify anemia, which means a low red blood cell level, or provide information needed before treatment.

X-rays can show joint damage, but early RA may not appear on an X-ray. Ultrasound or

magnetic resonance imaging may detect inflammation or early damage in selected situations.

Clinicians also consider other causes of joint symptoms, including osteoarthritis, gout, psoriatic arthritis, lupus, viral infections, and joint infection. Referral to a rheumatologist, a doctor who specializes in inflammatory and autoimmune conditions, is often appropriate when persistent joint inflammation is suspected.

Treatment and management

Treatment is tailored to disease activity, test results, other medical conditions, pregnancy plans, medication risks, and personal preferences. The main goals are to control inflammation, relieve symptoms, protect joints, and maintain everyday function.

Disease-modifying antirheumatic drugs , or DMARDs, are the foundation of RA treatment. These medicines do more than ease pain: they can slow or prevent joint damage. Methotrexate is a commonly used conventional DMARD, although another medicine may be more appropriate in some situations. Other conventional options include hydroxychloroquine, sulfasalazine, and leflunomide.

If conventional treatment does not control the disease, a rheumatologist may discuss a biologic DMARD or a targeted synthetic DMARD. These medicines act on specific parts of the immune response. They include tumor necrosis factor inhibitors, medicines aimed at other inflammatory pathways or immune cells, and Janus kinase inhibitors.

DMARDs can have important side effects and monitoring needs. Depending on the medicine, clinicians may check blood counts, liver or kidney function, and screen for infections such as tuberculosis or hepatitis. Some treatments are not appropriate during pregnancy. Patients should discuss pregnancy plans and contraception with their care team rather than stopping treatment on their own.

Nonsteroidal anti-inflammatory drugs like ibuprofen or naproxen may reduce pain and stiffness, but they do not prevent joint damage. They can also cause stomach bleeding, kidney problems, fluid retention, or cardiovascular effects in some people.

Corticosteroids like prednisone or hydrocortisone can quickly reduce inflammation. Because longer use can increase the risk of infection, bone loss, high blood sugar, cataracts, and other problems, clinicians generally try to use them carefully and limit exposure when possible. Steroids should not be stopped suddenly unless a clinician says it is safe.

Nonmedication care is also important. Physical therapy can support movement, strength, and safe exercise. Occupational therapy can suggest joint-protection methods, assistive devices, and changes to work or home activities. Regular activity such as walking, swimming, cycling,

and appropriate strength training may improve function and general health. During a flare, an inflamed joint may need temporary rest, but prolonged inactivity can increase weakness and stiffness.

A balanced eating pattern supports heart and bone health, although no specific diet has been proven to cure RA. Maintaining a comfortable weight may reduce stress on weight-bearing joints. Adequate sleep, pacing activities, and support for stress or low mood can also help.

Vaccines may reduce infections that could become more serious during immune-suppressing treatment. The recommended vaccine and timing depend on the specific medicine. Live vaccines may not be suitable with some treatments, so vaccination plans should be reviewed with the care team.

Surgery is not needed for most people. When severe damage causes ongoing pain or loss of function despite medical treatment, procedures such as tendon repair, joint fusion, or joint replacement may be considered.

Medicines commonly used for this include adalimumab , baricitinib , celecoxib and diflunisal . Which one suits you, if any, is a decision for you and your doctor.

Complications

Ongoing inflammation can erode cartilage and bone, weaken tendons, and cause permanent joint deformity. Hand, foot, and wrist changes may interfere with dressing, writing, walking, working, or other daily activities.

RA can also affect health beyond the joints. Possible complications include:

Some complications are uncommon. Regular monitoring helps clinicians identify treatment side effects and health risks before they become more serious. Managing blood pressure, cholesterol, smoking, activity, and other cardiovascular factors remains important alongside arthritis treatment.

- Osteoporosis, which makes bones weaker and more likely to break
- Anemia and other changes in blood cells
- Carpal tunnel syndrome from pressure on a wrist nerve
- Lung inflammation, scarring, or nodules
- Eye inflammation or severe dryness
- Inflammation around the heart
- Increased cardiovascular risk

- Infections related to the disease or immune-suppressing treatment
- Depression, anxiety, sleep problems, or difficulty managing fatigue

Follow up

Rheumatoid arthritis usually requires continuing follow-up. Visits may be more frequent when treatment begins or changes. A clinician may assess swollen and tender joints, pain, stiffness, fatigue, physical function, blood results, medication side effects, and progress toward low disease activity or remission.

Keep scheduled blood tests and tell the care team about new medicines, supplements, infections, pregnancy plans, or planned surgery. Do not stop a DMARD or steroid without medical advice. Report persistent symptoms or possible side effects rather than waiting for the next routine visit.

Arrange prompt medical advice for a new hot, very swollen joint, especially with fever, because a joint infection must be considered. Also contact the care team promptly for fever or other signs of infection while taking immune-suppressing medicine, unexplained bruising, yellow skin or eyes, a new widespread rash, or worsening shortness of breath.

Seek emergency care for:

Routine concerns such as gradual changes in stiffness, fatigue, or day-to-day function can usually be discussed at a scheduled visit or through the clinician's usual advice service.

- Severe trouble breathing, chest pressure, or blue or gray lips
- Sudden facial drooping, weakness, difficulty speaking, or confusion
- A severe allergic reaction with swelling of the face or throat
- Coughing or vomiting blood, or passing black, tar-like stool

Sources

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