What Is Rheumatoid Arthritis?

Rheumatoid arthritis (RA) is an autoimmune disease in which a person’s immune system attacks the lining of joints throughout the body.

Rheumatoid arthritis causes joint inflammation, which in severe cases may result in permanent joint damage and disability. Additionally, RA may affect other organs, including the lungs, heart, blood vessels, skin, and eyes. Rheumatoid arthritis affects approximately 1 of every 200 adults worldwide and occurs 2 to 3 times more frequently in women than men. It can affect people of any age, but peak onset is from age 50 to 59 years.

Risk Factors for RA
The cause of RA is unknown, but certain risk factors are associated with an increased likelihood of developing RA, including a family history of RA or other autoimmune diseases, smoking, poor dental health, and viral infections.

Common Signs and Symptoms of RA
The first sign of RA is joint pain, particularly in the hands and feet, accompanied by joint stiffness in the morning lasting longer than 30 minutes. As the disease progresses, joints affected by RA become swollen and difficult to move. The pain and swelling often come and go, with periods of increased inflammation (flares) followed by periods of relative improvement. During flares, patients may also experience flu-like symptoms, such as muscle aches and fatigue.

Diagnosis of RA
Rheumatologists use physical examination, blood tests, and x-ray scans to diagnose RA. Most patients with RA have blood test results that are positive for antibodies called rheumatoid factor (RF), anticyclic citrullinated protein (CCP) antibodies, or both. Rheumatologists can help differentiate RA from other diseases that may cause similar symptoms but require different treatment.

Treatment and Prognosis of RA
Disease-modifying antirheumatic drugs (DMARDs) are the mainstay of treatment for RA. A common first-line therapy is a weekly dose of methotrexate. With this treatment, approximately 40% to 50% of patients with RA go into remission or have low disease activity. For those who do not improve with methotrexate, other, more immunosuppressive medications may be added sequentially. These medications include biologic DMARDs (such as tumor necrosis factor [TNF] inhibitors) or synthetic DMARDs (such as Janus kinase inhibitors), which target specific factors in the immune system responsible for inflammation in RA. Steroids are often added for short periods to decrease inflammation during flares. Nonsteroidal anti-inflammatory drugs (NSAIDs) or other pain medications can reduce joint pain but should be used only in combination with DMARD therapy because they do not prevent joint destruction. Patients with RA should be encouraged to stop smoking, maintain good dental health and sleep habits, and exercise regularly.

Although there is no cure for RA, early diagnosis and prompt treatment reduce progression of joint damage in up to 90% of patients and can prevent RA-related disability. In high-income countries, approximately 75% to 80% of patients with RA achieve remission or low disease activity. Remission rates are lower in lower-income countries due to inadequate access to optimal care.

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American College of Rheumatology

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