

Rheumatoid Arthritis

**CAUSES,
DIAGNOSIS
AND
TREATMENTS**



[arthritis.org](https://www.arthritis.org)

About Rheumatoid Arthritis

What Is Rheumatoid Arthritis?

Rheumatoid arthritis, or RA, is a chronic (long-term) disease that causes inflammation of the joints and other tissues. Joints become stiff, swollen and painful. If the inflammation is not controlled, it can damage joints and organs. That's why it's important to get prompt diagnosis and proper treatment of RA.

What Happens in RA?

In a healthy person, the body's immune system detects invaders, such as bacteria and viruses, and sends cells and chemicals to fight them. With RA, the immune system doesn't work properly and mistakenly attacks healthy tissues, causing inflammation.

The tissue that lines the insides of the joints (synovium) produces synovial fluid, which lubricates, cleans and helps joints move smoothly. The inflammatory process of RA causes the synovium to thicken, making the joint swollen and painful.

If inflammation goes unchecked, it can damage the cartilage that covers the ends of bones and the bones themselves. Over time, the shock-absorbing cartilage gets thinner and the joint space between bones gets smaller. Joints become unstable, lose their mobility and can become deformed. Unfortunately, joint damage cannot be reversed.

What Causes RA?

The cause of RA is not fully understood. Scientists believe that a disturbance in the immune system plays a leading role in inflammation and joint damage. However, no

one knows for sure why the immune system goes astray. Strong evidence points to genetic and environmental factors. Possible environmental factors that may trigger RA include smoking, infections and diet.

Is It Rheumatoid Arthritis?

These signs and symptoms are clues to RA:

- Joint pain, tenderness, swelling or stiffness for six weeks or longer.
- Morning stiffness for 30 minutes or longer.
- More than one joint is affected.
- The same joints on both sides of the body are affected.
- Fatigue.
- Low-grade fever.



Hands



Elbows



Feet



Knees



Wrists



Ankles

Some of the joints that may be affected by RA

RA Symptoms and Effects

Along with joint pain, many people with RA experience fatigue, loss of appetite and low-grade fever. Joint stiffness is usually worse in the morning and lasts more than 30 minutes. Symptoms may come and go. A period of high disease activity is called a flare. Ongoing high levels of inflammation can cause problems throughout the body. Because RA can affect many parts of your body, it is called a systemic disease. Here are some of the ways RA can affect the body beyond the joints:

Eyes. Dryness, pain, redness, sensitivity to light and impaired vision.

Mouth. Dryness and gum irritation or infection.

Skin. Rheumatoid nodules – small lumps under the skin over bony areas.

Lungs. Inflammation and scarring in the lungs, leading to shortness of breath.

Cardiovascular. Increase in the risk of cardiovascular disease, including heart attack and stroke.

Blood vessels. Blood vessel inflammation, leading to nerve, skin and other organ damage.

Blood. Anemia, a lower than normal number of red blood cells.



Rheumatoid Arthritis Diagnosis

Getting an accurate RA diagnosis may take some time. In its early stages, RA may resemble other forms of inflammatory arthritis. No single test can confirm RA. A rheumatologist will consider many factors, such as the following:

Medical history. Your doctor will ask about your personal and family medical history as well as recent and current symptoms.

Physical exam. Your doctor will examine each joint, looking for tenderness, swelling, warmth and painful or limited movement. The number and pattern of joints involved can indicate RA.

Blood tests. Blood will be drawn for two types of tests:

- **Inflammation.** Erythrocyte sedimentation rate (ESR or “sed rate”) and C-reactive protein (CRP) levels are markers of inflammation. They are not specific to RA but can help make a diagnosis.
- **Antibodies.** Rheumatoid factor (RF) is an antibody found in about 80% of people with RA at some point during the course of their disease. Because RF can occur in other inflammatory diseases, it’s not a sure sign of RA. Anti-cyclic citrullinated peptide (anti-CCP) is found in 60–70% people with RA, but it’s rarely found in other diseases. A positive anti-CCP test is a strong clue to RA.

Imaging tests. An X-ray, ultrasound or magnetic resonance imaging (MRI) scan may be done to look for joint damage. Ultrasound and MRI can often detect inflammation in the joint even when joint damage is not present.

Rheumatoid Arthritis Treatments

Developing a Treatment Plan

Once diagnosed with RA, you may feel uncertain about what's to come. That's understandable, but there are effective therapies that help many patients achieve remission (minimal or no signs of disease activity). Your doctor will recommend a plan based on your disease activity, best scientific evidence, treatment guidelines, your preferences and practical issues (such as your reproductive plans and insurance coverage). Your complete treatment plan should include medications, therapies and self-care instructions.

A thorough discussion should lead to a shared decision about the best treatment approach for you.

Setting Treatment Goals and Strategies

The goals of RA treatment are to:

- Stop inflammation.
- Relieve symptoms.
- Prevent joint and organ damage.
- Improve physical function and overall well-being.
- Reduce long-term complications.

Getting disease activity to a low level and keeping it there is what is called having “tight control of RA.” To achieve tight control, your doctor will follow these strategies:

Early, aggressive treatment. The first strategy is to reduce or stop inflammation as quickly as possible.

Treat to target. To achieve low disease activity, doctors will target remission. In treat-to-target, doctors and patients decide together how to adjust medications over time to get as close as possible to remission.

Medications Used to Treat RA

Several medications are used to treat RA. What works for one person may not work for another. Regular appointments with your doctor are important to figure out what works best for you.

Drugs That Relieve Symptoms

Nonsteroidal anti-inflammatory drugs (NSAIDs) can reduce joint pain and swelling. NSAIDs (aspirin, ibuprofen, naproxen sodium) are available over the counter (OTC) or with a prescription. These medicines can be taken orally or applied in a patch or cream on a swollen joint.

Analgesics are used for pain relief. Acetaminophen is the only OTC analgesic; it is taken orally.

Glucocorticoids (also called steroids or corticosteroids) work quickly to reduce inflammation. These drugs – such as prednisone and methylprednisolone – can be taken orally, injected into the muscle or directly into a joint.

Drugs That Control Disease Activity

Early, aggressive treatment of RA is achieved with a category of drugs called disease-modifying antirheumatic drugs (DMARDs).



Get detailed information about the medications used to treat RA with the online Drug Guide at [arthritis.org/drugguide](https://www.arthritis.org/drugguide).

Window of Opportunity

Because RA can cause joint damage even at an early stage, initial treatment focuses on quickly controlling disease activity. People who start treatment as soon as possible after symptoms begin have the best chance of avoiding permanent joint damage and achieving remission.

DMARDs help reduce disease activity, slow the progression of RA and prevent or slow joint damage. This category includes:

- Conventional synthetic DMARDs that have broad immune-suppressing effects.
- Biological DMARDs that target specific proteins in the blood or block blood cells that help release inflammatory proteins.
- Targeted synthetic DMARDs that affect different inflammatory pathways than biologics.

Before taking any DMARD, your doctor will order blood tests to rule out liver problems because some medications can affect the liver. You may have a skin or blood test to rule out a history of exposure to tuberculosis. A flu vaccine may be recommended as well.

Conventional synthetic DMARDs are often the first-line treatment for many types of arthritis. Methotrexate is prescribed most commonly and is taken orally or injected once a week. Others are taken orally, usually one or twice a day. They include azathioprine, hydroxychloroquine, leflunomide and sulfasalazine. Some are prescribed together with other DMARDs or biologics.

Biologics are used if your disease can't be controlled with non-biologic DMARDs. They may be used alone but more often are used with methotrexate

What If Medications Stop Working?

With the treat-to-target strategy, doctors monitor and adjust therapy every three to six months (or more frequently) until joints are no longer painful or swollen and disease activity is as low as possible. If your current therapy isn't effective, your doctor may add another drug or switch to another medication.

The most important member of your healthcare team is you.

and other conventional DMARDs. Biologics are administered by self-injection or infusion at a clinic.

Ten biologics are currently approved by the U.S. Food and Drug Administration to treat rheumatoid arthritis – abatacept (*Orencia*), adalimumab (*Humira*), anakinra (*Kineret*), certolizumab pegol (*Cimzia*), etanercept (*Enbrel*), golimumab (*Simponi*), infliximab (*Remicade*), rituximab (*Rituxan*), sarilumab (*Kevzara*) and tocilizumab (*Actemra*).

Targeted synthetic DMARDs block precise pathways inside immune cells. Targeted DMARDs are taken in pill form. Tofacitinib (*Xeljanz*) and baricitinib (*Olumiant*) are approved for use in RA.

Living with RA

Be Proactive

Living with a chronic disease may be a lot to handle, at least at first. But you can do it by taking a proactive role in your treatment.

Learn all you can about your condition from your rheumatologist and other trusted sources such as the Arthritis Foundation (arthritis.org).

Maintain a positive attitude and lead a healthy lifestyle by eating well, engaging in physical activity, not smoking and working through any emotional issues that may come up.

Build your healthcare team. A physical therapist, occupational therapist, mental health counselor,

nutritionist, personal trainer and massage therapist can all be part of your team. They show you ways to protect your joints, manage pain, exercise safely, develop coping skills, use assistive devices and maintain a healthy weight.

Take charge by keeping track of symptoms, medications, side effects and pain levels so together with your doctor, you can determine what works best for you. Get regular check-ups and keep up with your immunizations. Ask questions and share concerns with your healthcare team.

Develop a network of friends, family members and coworkers you can count on for support. In addition to people you already know, don't be afraid to go online to talk about your arthritis with other people who have it.



Meet others who have RA and are facing the same challenges as you through the Arthritis Foundation at [arthritis.org/community](https://www.arthritis.org/community).

Emotional Wellness

Feeling sad, depressed, worried or anxious are all common reactions to having RA. The body-wide inflammation may even contribute to onset of depression. But you can use strategies to better cope with arthritis, improve your mood and ease worries.

Effective treatment of depression and anxiety can improve your pain, motivation, energy, well-being, self-care and quality of life. If you have feelings of depression or anxiety, you should talk to your doctor, who can assess your situation, make treatment recommendations or refer you to a mental health professional.

Smart Ways to Manage RA

Nutrition. While there is no specific “diet” for RA, certain foods that are rich in antioxidants and can help control inflammation. Many of them are part of the so-called Mediterranean diet, which emphasizes fish, vegetables, fruits and olive oil.



Find more information at [arthritis.org/diet](https://www.arthritis.org/diet).

Activity pacing. Rest is important when RA is active, you feel fatigued, and your joints feel painful, swollen or stiff. Lighten your schedule and ask for help when you need to. Take breaks throughout the day to conserve energy and protect joints.

Physical activity. While you may need to rest at times, physical activity is important. Your exercise program should emphasize low-impact aerobic conditioning, muscle strengthening and flexibility. A physical therapist can help you design – and stick to – an exercise program that works for you.



Learn more at [arthritis.org/exercise](https://www.arthritis.org/exercise).

Hot and cold treatments. Heat improves blood circulation, helping reduce joint stiffness and muscle spasms. Cold helps reduce swelling by constricting blood vessels.

Relaxation techniques. Relax your muscles and slow down your thoughts with techniques such as deep breathing, guided imagery and visualization.

Massage. Massage can help reduce arthritis pain, improve joint function and ease stress and anxiety.

Topical treatments. Applied directly to the skin over the painful muscle or joint, these may contain NSAIDs, salicylates, counter-irritants or capsaicin.

Acupuncture. Acupuncture is the practice of inserting fine needles into the body along special points called meridians to relieve pain.



**It All
Starts
Here.**

We realize you didn't sign up for arthritis. Our family is probably one you never planned to join. But our **Live Yes! Arthritis Network is a special community where you'll find strength, support and solutions to live life to the fullest. Here are a few ways to start your journey:**

I WANT TO CONNECT with people going through a similar experience. **Go to liveyes.arthritis.org**

I LOVE DATA and want to know more about the latest research. **Go to arthritis.org/arthritis-cure**

I NEED PRACTICAL ADVICE and tools to improve my everyday life. **Go to arthritis.org/Tools**

NEED HELP NOW? Call us 24/7 at 844-571-HELP or visit arthritis.org.



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