



# The 3-Step Process for RA Testing

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## Rheumatoid Arthritis Tests

Unfortunately, there is no single blood test that can detect rheumatoid arthritis. Below are the top tests medical providers use to confirm an RA diagnosis. There is a specific reason as to why these rheumatoid arthritis tests are ordered, and that is to screen for antibodies and markers of inflammation in the body.

### 1. Physical Exam

Rheumatoid arthritis impacts not only the joints, bones and surrounding structures, but organs as well. Specifically, the eyes, heart and lungs. For a physical exam, your doctor will examine your joints for pain, inflammation, tenderness and decreased range of motion. However, not everyone will experience these visible symptoms because rheumatoid arthritis can be mild, moderate, or severe in its manifestation.

#### Personal Medical History

An extension of a physical exam is a discussion about your personal medical history. Medical providers will often ask about your daily living and lifestyle habits, such as cigarette smoking, diet and exercise, sleep habits and stress levels. For instance, research shows that there is an increased risk for developing rheumatoid arthritis among smokers. Any information regarding general health, past surgeries and procedures, or other conditions you may have been diagnosed with is important to tell your doctor. Sometimes people diagnosed with RA have another chronic disease too.

#### A Family Connection to Rheumatoid Arthritis or Other Health Conditions

Research has shown that rheumatoid arthritis can be genetic. If there is knowledge of an immediate or extended family member with rheumatoid arthritis, or another autoimmune disease, this must be relayed to your medical provider. There is a specific gene marker called HLA-DR4 that can indicate a significant genetic risk factor in someone who has a family history of rheumatoid arthritis. If this test shows you have this marker, then you are five times more likely to develop rheumatoid arthritis. Research studies have found that nearly 70% of those who live with rheumatoid arthritis will show that they have this genetic marker. There is also a secondary genetic marker, HLA-DR1, which along with HLA-DR4 is presumed to be the root of most rheumatoid arthritis diagnoses.

### 2. Antibody Blood Tests

These blood tests are not specific for only rheumatoid arthritis. There are other autoimmune diseases that exhibit similar symptoms as RA, thus producing the same elevated inflammatory markers that may be seen in the tests below to screen for rheumatoid arthritis. This can be seen as a positive because your doctor may be able to catch something else going on in the body.

#### Rheumatoid Factor (RF)

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This is the most common inflammatory marker test. It's found in about 85% percent of rheumatoid arthritis cases, though there is conflicting data due to some people having a negative rheumatoid factor test result. But this does not mean the disease is not present.

### **Anti-CCP (Anti-Cyclic Citrullinated Peptide)**

Anti-CCP determines if the body is showing an inflammatory response. An example is when the body is injured or undergoes an infection. When this happens the body produces these antibody proteins, that go to the source and try to heal the injured area of the body. Nearly 80% of people diagnosed with rheumatoid arthritis test positive for these specific antibodies. This test can help diagnose rheumatoid arthritis in the early stages before it becomes more progressive.

### **ANA (Antinuclear Antibodies)**

When this test comes back above average, it is a good indicator that an autoimmune disease is present. This is often found in people with rheumatoid arthritis because the immune system is attacking normal, healthy cells and tissues. Thus, this increases the amount of ANA that targets these proteins within the cells.

### **C-Reactive Protein (CRP)**

Another common blood test done is CRP, and this shows if there is chronic inflammation within the body overall. It's a test done for a multitude of other conditions from various infections, cancers, obesity and heart disease. Since inflammation is a huge driving factor for many infections and chronic disease, this will be one of the first tests your provider will order.

### **Erythrocyte Sedimentation Rate (ESR)**

Doctors will order an ESR, along with a CRP blood test above within a general blood test as well. They are done so often that they have become a standard norm for pretty much everyone who complains of any sign of infection or disease. ESR will help doctors find out the levels of inflammation in the blood itself. For rheumatoid arthritis, this marker is often extremely high in individuals who have just diagnosed. Over time with the proper treatment plan and lifestyle changes this, along with CRP and other markers seen above can drastically decrease with weeks and months.

Though, it is important to note that high levels of ESR are also connected to other inflammatory conditions and autoimmune disease. Like RH Factor mentioned above, a normal ESR result does not mean you do not have rheumatoid arthritis or another condition. Everyone's body is different, so going by one test alone is not enough to give an accurate diagnosis.

## **3. Imaging Tests**

These are commonly done to see what the naked eye cannot. Imaging tests for rheumatoid arthritis range from an ultrasound, x-ray, MRI, and on rare occasions, a CT scan. The main reason they are ordered is to show your doctor if joint damage has occurred. Physical exams and blood tests are often used in conjunction with imaging tests to show the full picture. One telltale sign of rheumatoid arthritis is the lack of range of motion, which can be viewed during a physical examination. At times, a person's joints may have decreased range of motion because of inflammation or fluid buildup, and not necessarily joint damage. So, imaging tests can see both fluid and joint damage.

Rheumatoid arthritis can be present even if there are no signs of inflammation or joint damage, which is why blood tests need to be done too. Those diagnosed in the early stages of rheumatoid arthritis can have joints that look normal, though imaging and blood tests often show a different story.