

Spotlight on Health

Rheumatoid Arthritis

Do you have joint pain or stiffness? Most people with these symptoms have osteoarthritis. But there are other kinds of arthritis, too. So before you start self-medicating with over-the-counter drugs for pain, see your doctor. It is important to find out if you actually have arthritis and, if you do, which type it is. If you have rheumatoid arthritis (RA), pain medication alone won't stop joint damage from happening. Other types of medicine might be able to, however. The earlier they are taken, the better the chance for preventing joint damage that lasts a lifetime.¹

What Is Rheumatoid Arthritis?

RA is one of the many different forms of arthritis. It is an autoimmune disease in which the immune system mistakenly attacks the joints and harms them. This causes painful swelling and stiffness in the joints. Over time, the joints can become deformed and won't work properly. All of this makes it hard for a person with RA to do normal activities of daily living.

RA can harm other parts of the body, too. Sometimes the lungs are affected, leading to shortness of breath. People with RA are also more likely to develop heart disease. Some people with RA have a general feeling of fatigue, loss of appetite, and weight loss.

How Can Doctors Tell If It's Rheumatoid Arthritis?

The first thing a doctor will do is find out about the symptoms. In RA, symptoms have a different pattern than those in other types of arthritis. For example, they often develop over the course of a few weeks or months instead of abruptly or over years. Symptoms may come and go instead of being there all the time. When there is morning stiffness, it can last more than an hour instead of less than an hour. Symptoms can be felt in joints throughout the body instead of in only 1 or 2 areas of the body. Other parts of the body could be affected too, not just the joints. These include blood vessels, heart, lungs, eyes, mouth, and skin.

Doctors can't always tell if it's RA based on symptoms alone. X-rays and other laboratory tests can help. For example, ESR and CRP are 2 lab tests that measure inflammation. Inflammation is common in RA and some other types of arthritis. But not all types of arthritis have inflammation. So these 2 tests help doctors tell 1 form of arthritis from another. The RF and CCP antibody tests can also help. Both of these antibodies are often present in RA, especially if a person has had it for a while. They are less common in other types of arthritis.

Sometimes doctors can't diagnose RA when the person first has symptoms. They have to wait until the disease progresses and more symptoms develop. This is a problem because treatment can't be started early, before the joints are damaged. New advances may be changing this, though.



Symptoms of Rheumatoid Arthritis

In Early Stages

- Pain in small joints of hands or wrists
- Stiffness in joints, especially in the morning

These symptoms can come and go.

In Later Stages

- Pain, swelling, and stiffness in 1 or more joints
- Morning muscle and joint stiffness
- Fatigue, loss of energy, lack of appetite
- Low-grade fever
- Joints red and warm to the touch
- Bumps under the skin
- Lung inflammation, which can cause shortness of breath
- Heart inflammation, which can cause chest pain
- Hoarseness caused by damage to a joint in the voice box

How Can Rheumatoid Arthritis Be Diagnosed Early?

One way is to use a scoring system developed by experts to help identify RA early.² The first step is to gather some information, including the number and size of joints that are swollen, painful, or stiff. Doctors will also find out how long these symptoms have been going on. Blood test results for ESR, CRP, and antibodies to RF and CCP are the final pieces of information gathered. The number and type of joints affected (large or small), the length of time of symptoms, and the blood test results are each given a point value. The higher the number of points, the more likely the disease is RA. A total of 6 or more points (out of 10) suggests that the person has RA.

Optimizing Early RA Diagnosis

Sometimes people have RA for a while before their body makes RF and CCP antibodies. So they might not have a positive test result in the early stages of RA. Using both of the tests helps, because maybe 1 of the 2 will be positive. Another way to improve early diagnosis is by adding a third test called 14-3-3 η (eta).³ The 14-3-3 η protein is released from joints that are affected by RA. Compared to the RF and CCP tests, it is positive a little more often in the early stages of RA. Using all 3 tests improves the chance of diagnosing RA in the early stages. The 3 tests together can identify close to 80% of people with early RA.

What Can You Do?

See your doctor as soon as you can if you have joint pain, stiffness, or swelling. Ask him or her to consider evaluating you for RA.

How Can The Laboratory Help?

The lab performs tests for inflammation (ESR and CRP). The lab also does tests for the RF and CCP antibodies and the 14-3-3 η protein. These tests help the doctor diagnose RA in all stages.

The lab also does tests that can help differentiate RA from other types of arthritis. This can help the doctor know exactly what is causing a person's joint symptoms. Then the doctor can decide on the best treatment.

More Information

You can find more information at these Web sites:

- Arthritis Foundation®:
www.arthritis.org/about-arthritis/understanding-arthritis/diagnosing-arthritis.php
- MedicineNet.com:
www.medicinenet.com/rheumatoid_arthritis/article.htm
- WebMD:
www.webmd.com/rheumatoid-arthritis/guide/default.htm

The Most Common Types of Arthritis⁴⁻⁶

Type	Frequency
Osteoarthritis	30.8 million
Gout	8.3 million
Rheumatoid arthritis	1.5 million
Psoriatic arthritis	0.7 to 2 million

References

1. Nell VP, Machold KP, Eberl G, et al. Benefit of very early referral and very early therapy with disease-modifying anti-rheumatic drugs in patients with early rheumatoid arthritis. *Rheumatology (Oxford)*. 2004; 43:906-914.
2. Aletaha D, Neogi T, Silman AJ, et al. 2010 Rheumatoid arthritis classification criteria: an American College of Rheumatology/European League Against Rheumatism collaborative initiative. *Arthritis Rheum*. 2010;62:2569-2581.
3. Maksymowych WP, Naides SJ, Bykerk V, et al. Serum 14-3-3 eta is a novel marker that complements current serological measurements to enhance detection of patients with rheumatoid arthritis. *J Rheumatol*. 2014; 41:2104-2113.
4. Arthritis-related statistics. Centers for Disease Control and Prevention website. http://www.cdc.gov/arthritis/data_statistics/arthritis-related-stats.htm. Updated April 12, 2016. Accessed April 18, 2016.
5. Gelfand JM, Gladman DD, Mease PJ, et al. Epidemiology of psoriatic arthritis in the population of the United States. *J Am Acad Dermatol*. 2005;53:573.
6. Helmick CG, Lee-Han H, Hirsch SC, et al. Prevalence of psoriasis among adults in the U.S.: 2003-2006 and 2009-2010 National Health and Nutrition Examination Surveys. *Am J Prev Med*. 2014;47:37-45.