

Blood tests for arthritis

This sheet gives a general description of some of the blood tests commonly used to diagnose different types of arthritis. It also provides details of where you can find more information. This information should not be used in place of medical advice. You are encouraged to always fully discuss any blood test results with your doctor or healthcare team.

What are blood tests used for?

Your doctor may use blood tests to help:

- confirm a diagnosis: Blood tests can help diagnose some types of arthritis.
- monitor disease severity and response to treatment: Your doctor may use blood tests to determine whether your arthritis is responding to the medicines you are taking.
- check for side effects from medicines: Some side effects of medicines do not cause any obvious symptoms until significant damage has been done. Your doctor may use blood tests to check for side effects before they become major problems.

Are all types of arthritis diagnosed by a blood test?

Not all forms of arthritis can be diagnosed by blood tests. For example, there are no blood tests to diagnose osteoarthritis or chronic back pain. Sometimes your doctor may use blood tests to help rule out other types of arthritis or other conditions that can cause similar symptoms.

Are there other ways to diagnose arthritis?

Examination of your joints by your doctor is the first, and one of the most important, ways of diagnosing arthritis. Your doctor will use blood tests to help confirm what they find on examination and from listening to your symptoms. Your doctor may also use a variety of other tests to help diagnose arthritis, including testing other body fluids (such as urine or joint fluid) and x-rays and scans (such as MRI).

What are the most common blood tests for arthritis?

There are a variety of blood tests your doctor may order. The blood tests used to check for common types of arthritis include:

- Erythrocyte sedimentation rate (ESR): This test measures the level of inflammation in the body, by measuring how fast red blood cells cling together, fall and settle (like sediment) in the bottom of a test tube over an hour. A high ESR suggests greater levels of inflammation in your body. However ESR tests do not tell the doctor exactly where in your body the inflammation is or what is causing it. ESR can also be affected by other conditions besides inflammation, so it is often used alongside other tests.
- C-Reactive protein (CRP): This test measures the level of inflammation in the body, by measuring the amount of a special type of protein in the blood. A high or increasing amount of CRP suggests you have an acute infection or inflammation in your body. If the CRP level in your blood drops, it can mean that you are getting better and inflammation is reducing. Like the ESR, the CRP test is not specific enough to diagnose a particular type of arthritis or disease.
- Rheumatoid factor (RF): The test for rheumatoid factor is commonly used to help diagnose rheumatoid arthritis. Rheumatoid factor is an antibody (a protein made by the body's immune system). It is found in about eight out of ten people who have rheumatoid arthritis (RA), but about two out of 10 people with RA will never test positive for rheumatoid factor.

Rheumatoid factor levels can also vary and the test results may be negative in the early stages or during inactive periods (remission) of RA. If you have symptoms of RA but your first rheumatoid factor test is negative, your doctor may order the test to be repeated. However a positive rheumatoid factor test does not always mean you have RA as there are several other conditions that can also give positive rheumatoid factor results. Healthy people without RA can also test positive for rheumatoid factor, particularly older people. This does not mean you will develop the condition.

- **Anti-cyclic citrullinated peptide antibody (Anti-CCP):** This is a relatively new test, which is also used to help diagnose RA. It is particularly useful in the early stages of RA or in borderline cases as it is a more specific test than the rheumatoid factor test. According to the American College of Rheumatology, approximately 95% of patients with a positive CCP will go on to develop RA. However only about six out of ten people with early RA will test positive to CCP so your doctor will still use other tests and examinations to diagnose your condition.
- **HLA typing:** This test looks for the presence of certain genetic markers in the blood that seem to be associated with an increased risk of developing certain types of arthritis. For example, the marker

HLA-B27 is commonly found in people with a form of spondyloarthritis (such as ankylosing spondylitis, reactive arthritis or psoriatic arthritis). However HLA-B27 is a perfectly normal gene and is present in 8% of the general population, including healthy people without spondyloarthritis. Other genetic markers such as HLA – DR4 are associated with an increased risk of rheumatoid arthritis.

- **Antinuclear antibody (ANA):** The ANA test is used to screen for autoimmune disorders. In particular, about 95% of people with systemic lupus erythematosus (SLE or lupus) have a positive ANA test. The ANA test may also be positive in other conditions, such as Sjogrens syndrome, scleroderma, Raynaud's disease, mixed connective tissue disease and rheumatoid arthritis. A positive ANA test result may suggest an autoimmune disease but further specific testing is usually needed to make a final diagnosis. ANA test results can also be positive in up to one in ten healthy people without any known autoimmune disease.

CONTACT YOUR LOCAL ARTHRITIS OFFICE FOR MORE INFORMATION SHEETS ON ARTHRITIS.

Blood tests can be useful to help diagnose some, but not all, types of arthritis. Always discuss your blood test results with your doctor.

For more information:

Books: Upfal, Jonathan & O'Callaghan, Jill 2001, *Your medical tests: What do they mean?* Black Inc, Melbourne.

Websites: Lab T Tests Online – information about various laboratory tests and how they are used. www.labtestsonline.org.au

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Your local Arthritis Office has information, education and support for people with arthritis
Freecall 1800 011 041 www.arthritisaustralia.com.au

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