



# PATHOLOGY TESTS EXPLAINED

Information about pathology tests to help everyone take control of their health and make the right decisions about their care.

## WHAT YOU SHOULD KNOW ABOUT **BLOOD TESTS FOR AUTOIMMUNE DISORDERS**

Diagnosing autoimmune disorders is challenging and it can take time. There are many different types, and it is important to distinguish between them. Each type of autoimmune disorder affects your body in different ways and symptoms can take months or years to develop.

In autoimmune disorders your immune system mistakenly attacks normal cells in your body. It does this by making antibodies that trigger inflammation.

### Rheumatoid arthritis

### Blood Tests

- ✓ RF
- ✓ ANA
- ✓ ESR
- ✓ FBC
- ✓ CRP
- ✓ Anti-CCP



### Testing for autoimmune disorders

Pathology tests are needed to make a diagnosis and many blood tests can be involved. Some tests look for levels of inflammation, others detect the autoantibodies your body makes that cause inflammation, while others look for certain conditions that are associated with specific types of condition.

#### Tests for inflammation

C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR) are tests that measure the amount of inflammation in the body. However, they cannot show where the inflammation is or what is causing it.



## Testing for autoimmune disorders

Your immune system fights harmful things such as bacteria and viruses by making antibodies. In autoimmune arthritis, you make antibodies that mistakenly attack your own body. These are called autoantibodies.

### Autoantibody tests

Autoimmune disorders have a systemic effect on the body and are very complex. Levels of certain autoantibodies are raised with certain types, but they are also often found in the blood of healthy people. Individual autoantibody tests cannot give a definite diagnosis. By measuring the levels of more than one autoantibody and considering them together with your clinical symptoms and the results of imaging tests, your doctors can make a diagnosis.

#### Anti-nuclear antibody (ANA)

ANA are autoantibodies that are directed against certain components found in the nucleus of cells and are associated with several autoimmune disorders. However, they also appear in healthy people and by the time we are 70, up to 30 per cent of women and 20 per cent of men test ANA positive.

**Systemic lupus erythematosus (SLE):** All people with SLE will have a positive ANA result. If you test positive, you will need further specific autoantibody tests such as double-stranded DNA Ab and ENA.

**Sjögren's syndrome:** Most people with Sjögren's syndrome have a positive ANA result. However, a negative result does not rule it out. You will need further tests for two subsets of ANA: Anti-SSA (Ro) and Anti-SSB (La). All people with Sjögren's syndrome have SSA autoantibodies.

**Scleroderma:** Most people with scleroderma test positive for ANA. ANA subset tests can help differentiate the two forms of the disease – limited and diffuse. The diffuse form is more severe.

**Other forms of arthritis:** A positive ANA result may show up with Raynaud's disease, rheumatoid arthritis, dermatomyositis, mixed connective tissue disease and other autoimmune conditions.

### Rheumatoid Factor (RF)

High levels of rheumatoid factor in your blood are most often related to rheumatoid arthritis (RA) and an associated condition, Sjögren's syndrome. Almost all people with rheumatoid arthritis and most with Sjögren's syndrome have RF autoantibodies in their blood although it can take years for them to appear. If you have a negative result your doctors may ask you to repeat the test at a later date. If you have a positive result but do not have rheumatoid arthritis or Sjögren's syndrome, there may be another reason. RF autoantibodies can be caused by other autoimmune or inflammatory disorders, cancer, viral infection, or diseases of the liver, lung, or kidney.

#### Cyclic citrullinated peptide antibody (CCP)

CCP autoantibodies can be useful in diagnosing early rheumatoid arthritis. This is important so that treatment can be started straight away, minimising tissue damage and complications. The CCP test is also more specific for the diagnosis of rheumatoid arthritis than RF autoantibodies, which can be caused by many other conditions. If you are positive for both CCP and RF, it is very likely that you have rheumatoid arthritis. Also, it suggests you may develop more severe symptoms.

#### HLA-B27 genetic testing

Human leukocyte antigens are molecules found on the surface of white blood cells that help the body's immune system distinguish between its own cells and foreign substances. Everyone has an inherited combination of HLA on their white blood cells. A particular type called HLA-B27 is associated with certain types of arthritis.

For more detailed information on these and many other tests go to [pathologytestsexplained.org.au](http://pathologytestsexplained.org.au)



[www.pathologytestsexplained.org.au](http://www.pathologytestsexplained.org.au)

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Click on the link to find information about what your tests are investigating or measuring and what your results can tell your doctor.