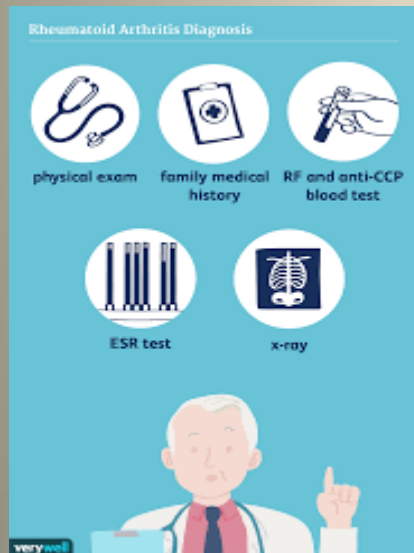


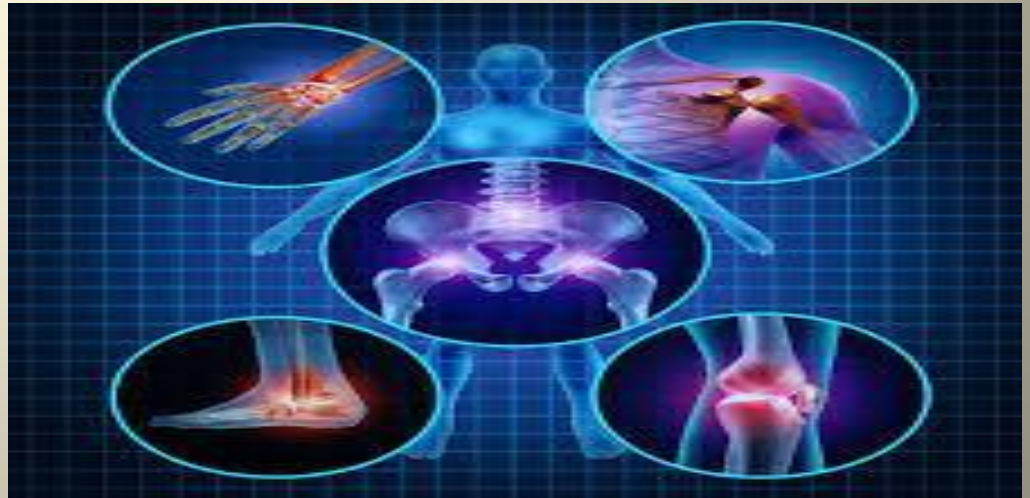
# Special tests for Diagnosis ARTHRITIS



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# Rheumatoid arthritis

Rheumatoid arthritis (RA) is a chronic autoimmune disease causing joint inflammation. Genetic and environmental factors contribute to its cause. Timely rheumatoid arthritis diagnosis through tests and exams is crucial. Management can alleviate symptoms and improve quality of life.



# **Blood Tests to Diagnose Rheumatoid Arthritis**

There is no one specific test that conclusively diagnoses RA.

Instead, your healthcare provider will make a diagnosis based on several tests including:

- **Rheumatoid factor (RF)**
- **Anti-cyclic citrullinated peptide (Anti-CCP)**
- **Erythrocyte sedimentation rate (ESR)**
- **C-reactive protein (CRP)**
- **Antinuclear antibody (ANA)**
- **Complete blood count (CBC)**



## Rheumatoid Arthritis Diagnosis Tests



**Rheumatoid Factor (RF) Test**



**Anti-Cyclic Citrullinated Peptide Test**



**Erythrocyte Sedimentation Rate Test**



**C-reactive Protein (CRP) Test**



**Complete Blood Count (CBC)**



**Joint Fluid Analysis**



**"Empower Your Joints: Detect Rheumatoid Arthritis."**

[www.drlogy.com](http://www.drlogy.com)



A combination of positive tests that show inflammation and antibodies associated with RA can help your healthcare provider reach a diagnosis.

# Rheumatoid Factor (RF)

Rheumatoid  
Arthritis  
Factor test



This blood test checks for RF, an antibody that many people with rheumatoid arthritis can eventually have in their blood. An antibody is a special protein made by the immune system that normally helps fight invaders in the body.

Not all people with RA test positive for RF; some people test positive for RF but never develop the disease; and some people test positive but have another disease. (Since about 80% of adults with RA have rheumatoid factor, it is a common blood test during the diagnosis process.)

However, the RF blood test on its own is not enough to make a diagnosis because patient may have RA without RF .

In addition, some people have a positive RF blood test because of other conditions and not RA .



However, doctors can use this test, along with other test results and evaluations, to diagnose rheumatoid arthritis.



You do not need to make any special preparations before the blood test. During the RF blood test, a healthcare professional will collect blood from your vein and put it in a test tube.

## Note :-

- A positive RF blood test means that you have rheumatoid factor in your body.
- This indicates that you may have RA or another autoimmune condition.
- A positive RF blood test is not a definitive diagnosis for RA.
- A negative RF blood test does not automatically mean you do not have RA.
- Some people with RA have negative RF blood tests.
- Need more tests before diagnosing RA.



# Anti-Cyclic Citrullinated Peptide (Anti-CCP)

This blood test checks for anti-CCP antibodies, which appear in many people with rheumatoid arthritis. In addition, anti-CCP can appear before RA symptoms develop, which can help doctors diagnose the disease early. This test's results, along with the results from RF blood tests, are very useful in confirming a rheumatoid arthritis diagnosis. However, it is important to know that some people have rheumatoid arthritis even with normal blood tests.





- About 75% of adults with RA have anti-cyclic citrullinated peptides in their blood. It is rare for a person without RA to have anti-CCP.
- The anti-CCP test along with the rheumatoid factor blood test during the RA diagnosis process.
- If you test positive for both antibodies, there is a strong chance you have RA.



- A healthcare professional will collect your blood from your vein during an anti-CCP blood test. The blood sample will go to a laboratory, which will check for the presence of anti-cyclic citrullinated peptide.
- A positive anti-cyclic citrullinated peptide blood test means you have these antibodies in your blood and may have RA. A negative anti-CCP blood test means you do not have the antibodies, but you may still have RA.
- A positive anti-CCP and positive RF blood test indicate there is a strong chance you have RA.
- A positive anti-CCP and negative RF blood test show that you may be in the early stages of the disease or may have it in the future.
- A negative anti-CCP and negative RF blood test mean you may not have RA, so your healthcare provider may order more tests.

# Erythrocyte Sedimentation Rate (ESR)

- Erythrocyte sedimentation rate (ESR) is a blood test measures how quickly erythrocytes, or red blood cells, separate from a blood sample that has been treated so the blood will not clot. During this test, a small amount of blood will be put in an upright tube.
- A lab specialist will measure the rate that red blood cells settle toward the bottom of the tube after 1 hour.
- If you have a condition that causes inflammation or cell damage, your red blood cells tend to clump together. This makes them heavier, so they settle faster. The faster your red blood cells settle and fall, the higher your ESR.
- A high ESR tells your healthcare provider that you may have an active disease process in your body.

Test results may vary depending on age, gender, health history, and other things.

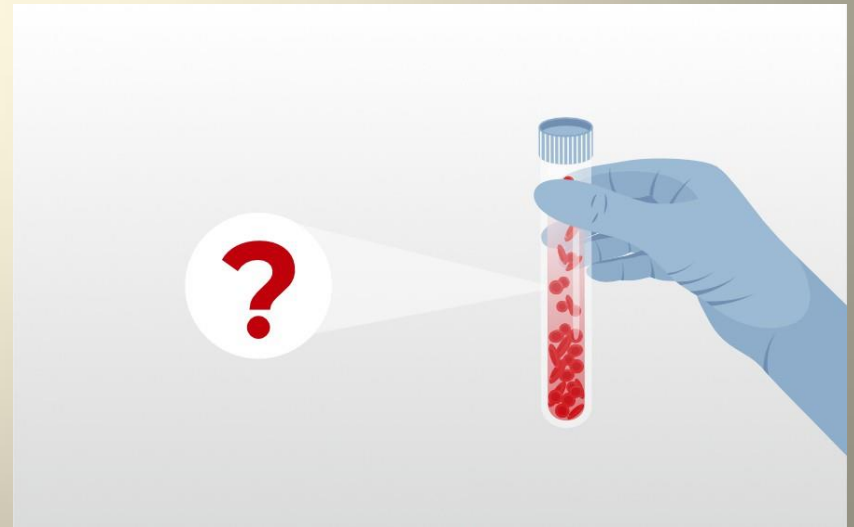
**ESR is measured in millimeters per hour (mm/hr).**

**The normal values are:**

- 0 to 15 mm/hr in men
- 0 to 20 mm/hr in women

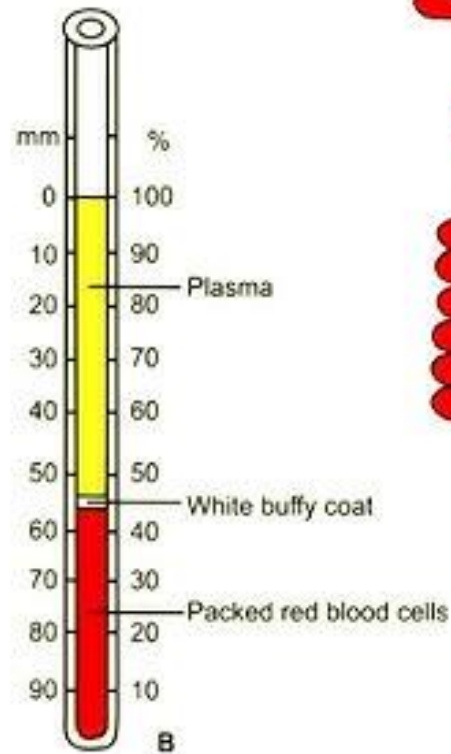
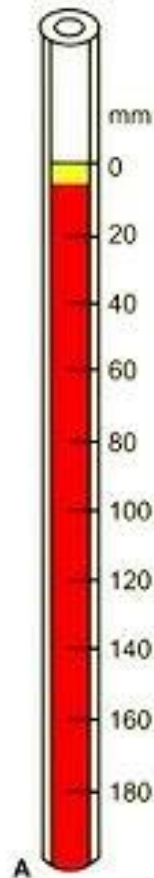
**ESR above 100 mm/h is most likely caused by an active disease.**

- A disease that causes inflammation in your body
- An active infection
- Cancer
- Heart disease
- Kidney disease
- Blood disease
- Diabetes
- Collagen vascular disease

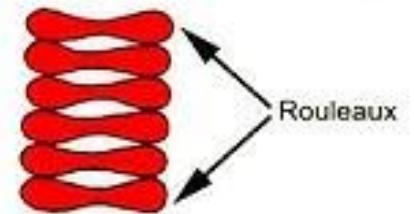
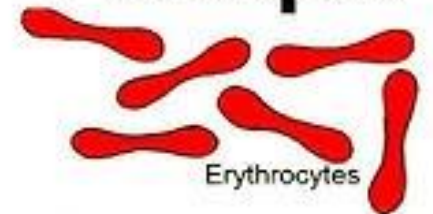




# Erythrocyte Sedimentation Rate



## Principle



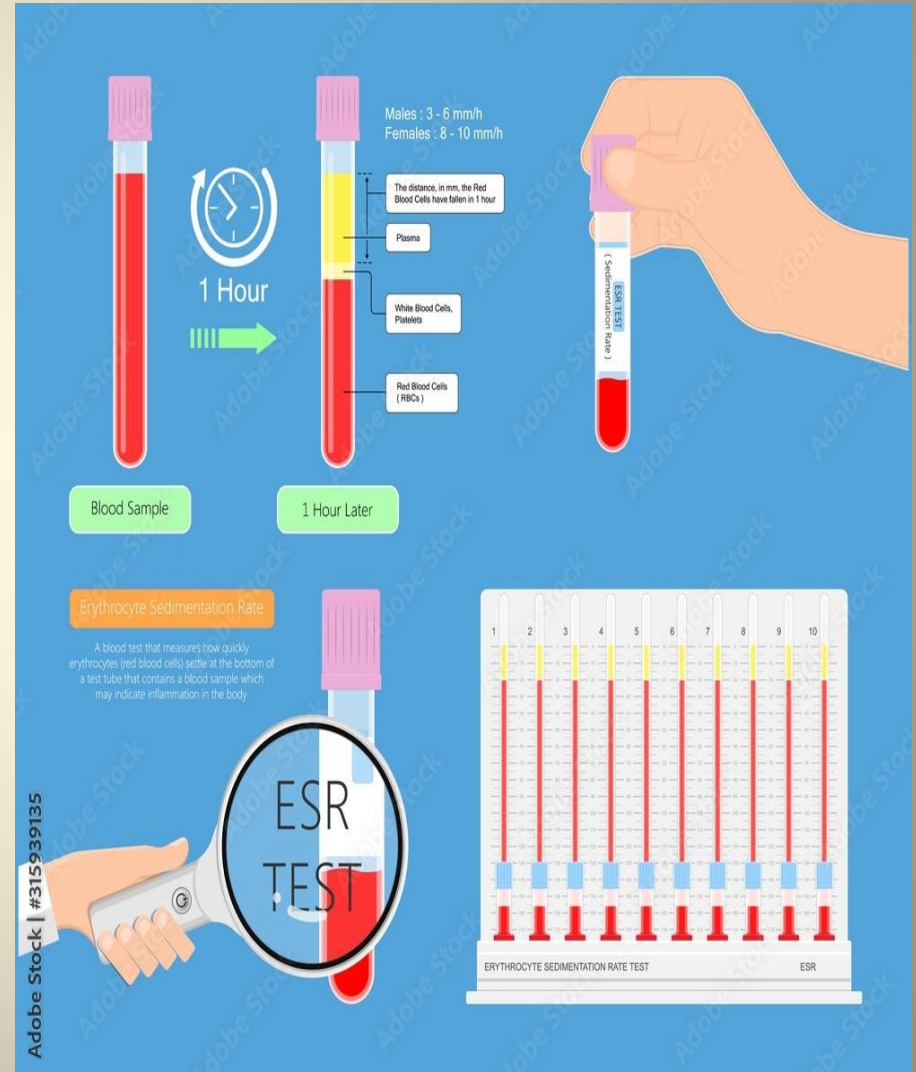
# ESR



# What might affect ESR test results?

Many things that are not active diseases can increase ESR. These include:

- Pregnancy
- Old age
- Being female
- Having a menstrual period
- Having recently eaten a fatty meal
- Being obese
- Taking certain medicines



- **How do get ready for this test?**
- You don't need to prepare for this test. Be sure your healthcare provider knows about all medicines, herbs, vitamins, and supplements you are taking.
- Tell your healthcare provider if you ate a fatty meal recently, if you are having your period, or if you may be pregnant



# C-Reactive Protein (CRP)

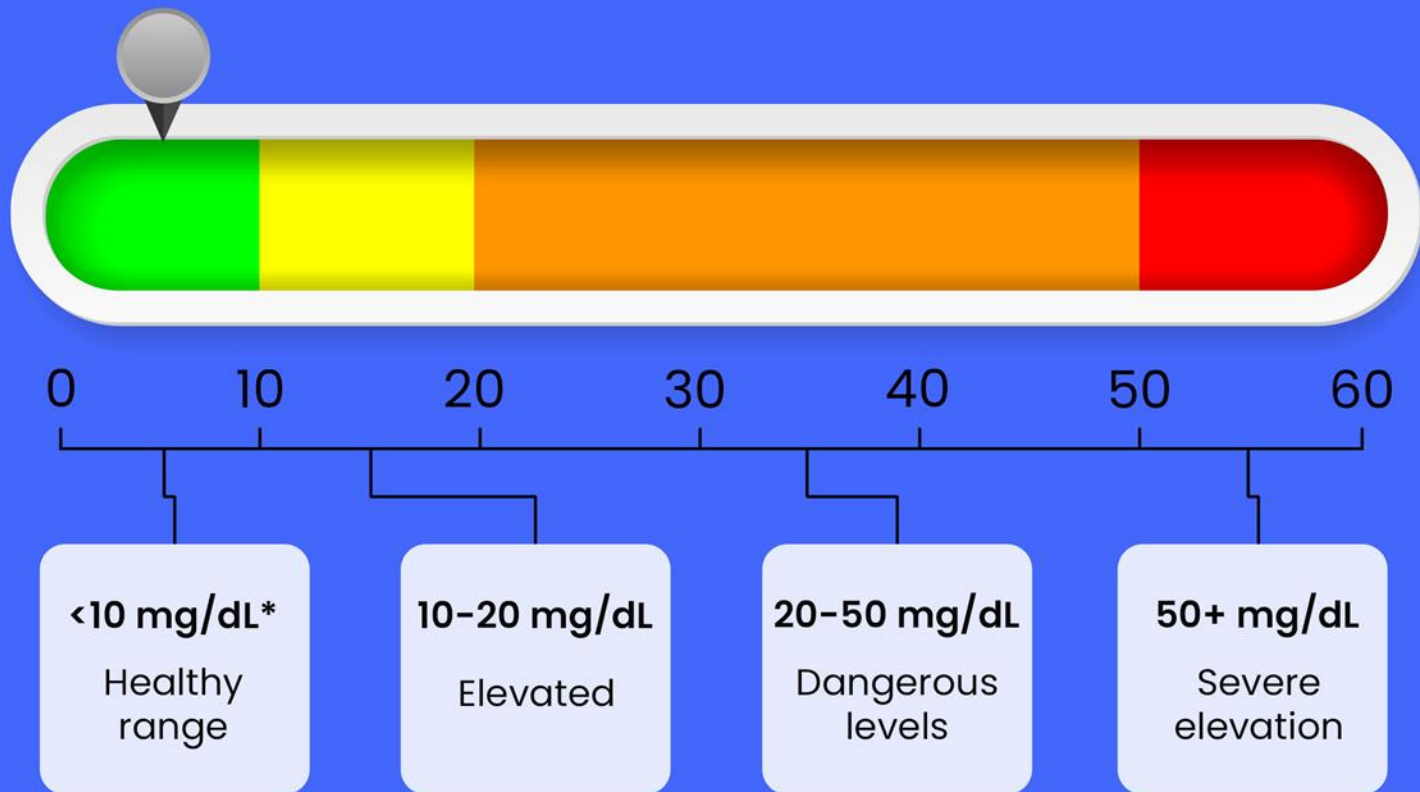
The liver makes C-reactive protein (CRP).

The levels of CRP increase when there is inflammation in the body. It is possible to measure CRP levels with a blood test.

Similar to the ESR test, CRP cannot definitively diagnose RA or another autoimmune condition. Instead, healthcare providers use these tests to determine if there is inflammation in the body and if additional testing is necessary.

• During the CRP test, your blood will be collected from a

## CRP Levels



\*milligrams per deciliter

- A high C-reactive protein blood test shows that you have inflammation in the body.
- A low CRP blood means it is less likely there is inflammation in the body.
- Even if you have a high CRP test result, this does not automatically mean you have RA. You may have an infection or another inflammatory disease. Being overweight, smoking, and not exercising can also lead to high C-reactive protein levels.

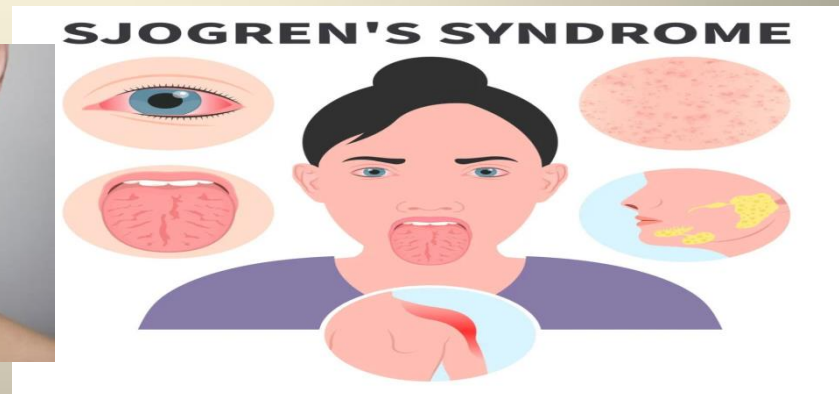


# Antinuclear antibody (ANA)

- Antinuclear antibody (ANA) is a protein that immune system makes. It is called antinuclear because it attacks the nucleus of a cell.
- Antinuclear antibodies can damage healthy tissues and cells in the body. An ANA test measures the antinuclear antibodies in the blood to determine if you have an autoimmune disorder.
- The antinuclear antibody blood test cannot show if have a specific disease, like RA. However, healthcare providers often order the ANA test to investigate other autoimmune diseases that can cause arthritis, such as lupus. It is a step toward diagnosis.



- You do not need to prepare for an ANA test.
- During the test, a healthcare provider will collect blood from your vein, so it can be analysed in a lab.
- A positive ANA test means you have antinuclear antibodies in your body.
- A negative ANA test indicates that you do not have these antibodies.
- A positive test is not a definitive diagnosis of RA. You may have another autoimmune condition or an infection that causes the positive results.



# What does a positive ANA test mean?

**Anti-Nuclear Antibodies**  
are antibodies to **your own DNA**



## Positive Results

*depend on dilution strength*  
**and can indicate autoimmune conditions like:**

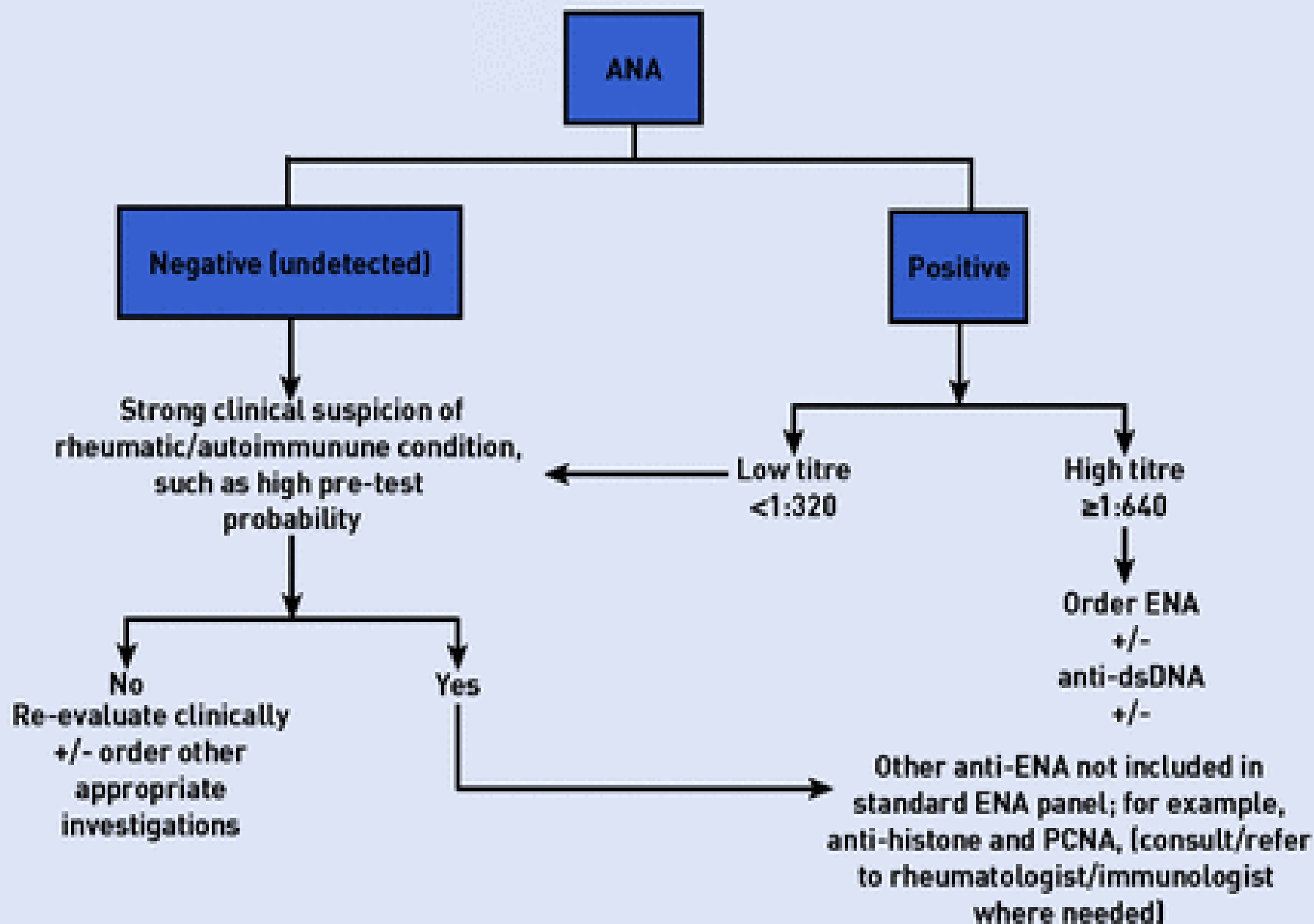
- Lupus
- Sjögren's
- Rheumatoid arthritis
- Scleroderma
- Addison Disease



## Negative Results

mean that no antibodies  
were detected





# Complete Blood Count (CBC)

- A complete blood count (CBC) is a test that looks at all the different cell types in the blood. may order a CBC test with differential and platelet counts during the RA diagnosis process to see if there is inflammation or other problems.

A CBC test can measure:

- White blood cells
- Hematocrit (percentage of red blood cells in blood)
- Hemoglobin
- Platelets





- Blood will be collected from your vein during a CBC test. The sample will go to a laboratory for testing.
- A CBC test will show the measurements of the different blood components, but not all of them are relevant for RA.
- Low white blood cell counts can indicate an autoimmune condition, cancer, or bone marrow problems. High white blood cell counts can mean you have an infection or inflammation.
- A high white blood cell count can indicate you may have a condition like RA, but it is not a definitive diagnosis.



# Other Tests

To rule out the possibility of other autoimmune conditions, your healthcare provider may take additional blood work, such as:

- Serum uric acid levels to rule out gout
- Serologic testing (antibody testing) for human parvovirus B19, hepatitis B virus (HBV), hepatitis C virus (HCV)
- Check your glucose, liver, and kidney function
- HLA typing (genetic test) to check for the risk of having RA-like conditions
- Creatine kinase (CK) test to check for muscle damage
- Complement blood test to measure complement proteins in the blood associated with autoimmune diseases
- Cryoglobulin test to check for abnormal proteins in the blood

# THANK U 4 ATTINTIONS

قال الرسول ﷺ: " من أصبح  
منكم آمناً في سربه، معافى  
في جسده، عنده قوت يومه،  
فكأنما حيزت له الدنيا ."

@Alordonalyoom

