TEST

RSV antibody test

A blood test that looks for antibodies made in response to respiratory syncytial virus.

WHAT IT MEASURES
Blood antibodies made against respiratory syncytial virus

SAMPLE
Blood from a vein

FASTING NEEDED?
No

HOW LONG IT TAKES
Usually under 10 minutes

RESULTS IN
Several days; turnaround varies by laboratory

USED FOR
Limited support of prior infection; mainly research and surveillance

MAIN LIMITATION
Antibodies cannot reliably confirm a current RSV infection

Overview

An RSV antibody test is a blood test that looks for immune proteins called antibodies. Your body may make these proteins after infection with respiratory syncytial virus, usually called RSV.

RSV commonly causes cold-like symptoms. It can cause more serious breathing illness in some infants, older adults, and people with certain health conditions.

Antibody testing is not usually the best way to diagnose a current RSV infection. Antibodies take time to develop, and previous infections can leave antibodies in your blood. For current symptoms, a molecular test such as PCR or another nucleic acid amplification test is usually more useful. These tests look for the virus itself in a nose or throat sample.

An RSV antibody test may measure IgG, IgM, or both. IgM can appear earlier in an immune response, while IgG usually lasts longer. This distinction is not always reliable in RSV because reinfections are common and antibody responses vary.

Why the test is ordered

RSV antibody testing is used much less often than nasal swab testing. It may be ordered to:

A single antibody result usually cannot show exactly when an infection occurred. It also cannot reliably tell whether symptoms happening now are caused by RSV.

The test is not routinely used to screen people without symptoms. It is also not generally used to prove that someone is protected from RSV.

- Help investigate whether an infection happened in the past
- Compare antibody levels in two blood samples taken at different times
- Support an outbreak investigation or research study
- Assess an unusual illness when direct testing was unavailable or performed too late

Who should have the test

Most people with possible RSV do not need an antibody test. If testing is needed during an active illness, a nasal or throat sample tested by PCR is usually preferred.

A clinician may consider antibody testing in selected situations, such as a specialist investigation, public health study, or retrospective review of an illness. "Retrospective" means looking back after the main illness has passed.

Sometimes two samples are requested. The first is collected near the illness, and the second is collected later. A clear rise in antibodies between the samples can provide stronger evidence of a recent immune response than one result alone. However, this approach takes time and usually does not help with immediate treatment decisions.

How to prepare

You do not usually need to fast. You can generally eat, drink water, and take your usual medicines before the blood draw.

Tell the clinician or laboratory if you have recently had:

Do not stop prescribed medicines unless the clinician who manages them tells you to do so. If other blood tests are being collected at the same appointment, those tests may have separate preparation instructions.

- An RSV infection or RSV vaccination

- Nirsevimab or palivizumab, which are protective RSV antibodies
- A blood, plasma, or immunoglobulin transfusion
- Medicines that suppress the immune system
- Another RSV antibody test

What happens during the test

A healthcare professional places a band around your upper arm and cleans the skin. A small needle is inserted into a vein, usually inside the elbow. Blood is collected into a tube and sent to a laboratory.

The blood draw itself generally takes less than a few minutes. You may feel a brief scratch or sting.

If paired testing is planned, you will be asked to return for a second blood sample. The laboratory or clinician will tell you when it should be collected.

Understanding your results

Results may be reported as positive or negative, as an antibody level, or as a titre. A titre is a measurement based on how much a blood sample can be diluted before antibodies are no longer detected.

A positive IgG result often means your immune system has encountered RSV or an RSV antigen before. It does not, by itself, prove that you currently have RSV. Previous infection is common, and vaccination or antibody products may affect interpretation.

A negative result means the test did not detect antibodies above that laboratory's threshold. This does not always rule out infection. The sample may have been collected before antibodies developed, or your immune response may have been weak.

An IgM result may sometimes support recent infection, but IgM tests can miss reinfections and may occasionally remain positive or react nonspecifically. It should not be interpreted alone.

A significant increase between an early and later sample can support recent infection. The laboratory's method and criteria determine what counts as a meaningful increase.

Reference ranges and interpretation vary by laboratory, test method, age, sex, pregnancy status, medicines, vaccination history, and clinical context. Use the range printed on your own

report.

What affects the results

Timing is one of the biggest influences. Testing very early can produce a negative result because your body has not yet made enough detectable antibodies. Testing later may find antibodies but not show exactly when the infection happened.

Other factors include:

Recent exercise, coffee, and kidney function do not usually have an important direct effect on RSV antibody levels. They may matter for other tests collected at the same time.

- Previous RSV infections: Reinfection is common, so IgG may already be present
- Age: Infants may carry IgG transferred from their mother during pregnancy
- Pregnancy: Antibody levels and transfer to the baby can complicate interpretation
- Vaccination: RSV vaccination can produce antibodies that some tests may detect
- Protective antibody products: Nirsevimab or palivizumab may affect some assays
- Recent transfusion: Plasma or immunoglobulin products can transfer antibodies temporarily
- Immune-suppressing medicines: These can reduce or delay antibody production
- Immune system conditions: Some people do not make a strong measurable response
- Laboratory method: Different tests may target different RSV proteins or use different cutoffs

Accuracy and limitations

There is no single accuracy figure that applies to every RSV antibody test. Performance differs by assay, antibody type, timing, age, and whether the person has had previous RSV infections, vaccination, or an antibody medicine.

The test can miss a true infection when blood is taken too early or when the immune system produces few antibodies. This is more likely in some young infants and people with weakened immune systems.

It can also appear to support a current infection when the detected antibodies actually came from an older infection, vaccination, maternal transfer, or an antibody product. Nonspecific reactions or reactions with similar viral targets can occasionally produce misleading results.

Comparing two samples may improve confidence that an immune response happened recently, but results arrive too late to guide most immediate care. For diagnosing an active infection, PCR or another molecular test from a respiratory sample is usually the better choice. Rapid antigen tests may provide quicker results, but they can miss infections, particularly in adults.

Risks and complications

The risks are those of a routine blood draw. You may have a small bruise, brief soreness, or feel faint.

Serious complications are uncommon. Applying pressure after the needle is removed helps reduce bruising.

What happens next

Your result should be considered with your symptoms, examination, testing dates, vaccination history, and any nasal or throat test results.

A positive antibody result usually leads to routine follow-up rather than emergency action. A negative result may prompt a different test if there is still concern about a current infection.

Seek prompt medical advice if breathing symptoms are worsening, fluid intake is poor, or a child has fewer wet diapers than usual. Seek emergency help for severe trouble breathing, blue or grey lips or skin, repeated pauses in breathing, marked difficulty waking, or collapse. These actions are based on symptoms, not on the antibody result.

Common questions

Can I drink coffee before an RSV antibody test?

Yes. Coffee does not usually affect the result, and fasting is not required. Follow separate instructions if other tests are being collected.

Does the time of day matter?

No. RSV antibody testing can generally be done at any time the laboratory is open. The number of days since the possible infection matters more than the hour of collection.

Can I exercise beforehand?

Yes. Normal exercise is not known to meaningfully change RSV antibody results. Drink enough

water, since hydration can make a blood draw easier.

Can this test tell whether I have RSV right now?

Not reliably. A PCR or other molecular test from the nose or throat is usually better for detecting a current infection.

Will an RSV vaccine affect the result?

It may. Vaccination is intended to produce RSV antibodies, and some tests may detect them. Tell the person interpreting the result when you were vaccinated.

Why do I need two blood tests?

Two samples can show whether antibody levels rose over time. A rise provides better evidence of a recent immune response than a single positive result, although it does not provide a rapid diagnosis.

Sources

- Centers for Disease Control and Prevention. Diagnostic Testing for RSV
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