

Rapid Plasma Reagin



Does this test have other names?

RPR test, syphilis test

What is this test?

The rapid plasma reagin (RPR) test is a blood test that looks for antibodies to syphilis. Syphilis is a sexually transmitted infection (STI) that first causes symptoms seen with many other illnesses. Early symptoms include rash, fever, swollen glands, muscle aches, and sore throat.

In addition, people who have early-stage syphilis may have sores (lesions). Contact with these sores can pass the infection on to other people during sexual contact.

If not found, syphilis can stay in the body for years causing harm to internal organs. Without treatment, over time it can cause numbness, paralysis, blindness, and even death. But it can be easily cured if treated in the early stages. Treatment involves receiving 1 or more shots of a form of penicillin (penicillin G benzathine).

The RPR test looks for antibodies that react to syphilis in the blood. This means the test doesn't find the actual bacteria that cause syphilis. Instead, it looks for antibodies against substances given off by cells that have been harmed by the bacteria.

Why do I need this test?

You may need this test if you have ever been sexually active and show symptoms of syphilis. These symptoms may include:

- Small, painless sores (chancres) at the place where syphilis invaded your body
- Skin rash. Sometimes this is on the palms of your hands or the bottoms of your feet.
- Fever
- Swollen lymph glands
- Hair loss
- Headaches
- Muscle aches
- Weight loss
- Tiredness (fatigue)

Years after infection without correct treatment, symptoms in the final stages of the disease include numbness, paralysis, blindness, and dementia or death.

The RPR test is often used to check treatment of a syphilis infection. If you are being treated for syphilis, you need to stop having sex until your sores have fully healed. Your partner(s) should also be told so they can also be tested and treated if needed.

If you are a sexually active adult with HIV/AIDS, you may need the RPR test at least once a year. Screenings for syphilis and other STIs are also recommended every 3 to 6 months if you have had unprotected sex, multiple sex partners, or intercourse while under the influence of illegal drugs. It's routine to be tested for syphilis and other STIs during pregnancy. Condoms can help prevent the spread of syphilis. But they don't protect against sores outside the condom area.

You may also need the RPR test if you are in a group that is at high risk for syphilis. This includes sex workers, males who have sex with males, or adult prisoners. Syphilis can infect or even possibly kill a developing baby, so it's very important that all pregnant people be screened with an RPR. If it's positive, the pregnant person can get treatment to lower the chance of passing the disease to the fetus.

What other tests might I have along with this test?

RPR is not specific to just syphilis. If your RPR test is positive, you will need more tests to confirm that you have syphilis. One of the most common tests used to confirm a syphilis diagnosis is the T. pallidum enzyme immunoassay. Other tests may include:

- Fluorescent treponemal antibody absorption
- Microhemagglutination test for antibodies to T. pallidum
- T. pallidum particle agglutination assay
- Tests for other STIs

These tests will generally rule out a false-positive result. This means your test is positive even if you don't have syphilis. Your healthcare provider may also be able to find the syphilis bacteria by taking a sample from a moist sore and looking at it under a microscope.

What do my test results mean?

Test results may vary depending on your age, gender, health history, and other things. Your test results may be different depending on the lab used. They may not mean you have a problem. Ask your healthcare provider what your test results mean for you.

A negative or nonreactive result means you don't likely have syphilis. Positive results are given as a ratio in titers. This tells your healthcare provider the amount of antibodies in your blood.

Here are some general results:

- If you have a history of syphilis and your RPR test is negative or nonreactive, it's likely that you no longer have syphilis.
- A positive RPR test should be followed by another type of test to diagnose syphilis.
- If you have been treated for syphilis in the past, an RPR test that shows a titer increase of fourfold means you likely have a new syphilis infection if you were not fully treated in the past.

How is this test done?

The test is done with a blood sample. A needle is used to draw blood from a vein in your arm or hand.

Does this test pose any risks?

Taking a blood sample with a needle carries risks. These include bleeding, infection, bruising, or feeling lightheaded. When the needle pricks your arm, you may feel a slight sting or pain. Afterward, the site may be sore.

What might affect my test results?

Your test results may be false-positive for many reasons. These include pregnancy, IV drug use, tuberculosis, chronic liver disease, recent vaccines, or inflammation of the heart lining or valves (endocarditis). You may also have a false-positive result if you have one of a number of infections. These include rickettsial infections such as typhus or Rocky Mountain spotted fever.

Your results may be false-negative if the test is done too soon after you are infected with syphilis. It takes 14 to 21 days after infection with the spirochetes for your body's immune response to be found by the test. Drinking alcohol within 24 hours of the test also can give a false-negative result.

How do I get ready for this test?

Follow your healthcare provider's directions for getting ready for the test. You may need to not eat or drink anything but water for about 8 hours before the test. Be sure your healthcare provider knows about all medicines, herbs, vitamins, and supplements you are taking. This includes medicines that don't need a prescription and any illegal drugs you may use.

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