

Strep and Throat Cultures

A person's throat may be sore for many reasons. If due to an infection, the most common cause is a virus. In most cases, the soreness goes away as the infection does and almost never leads to further problems.

However in some cases, sore throats are caused by a more serious bacterial infection from germs known as group A streptococci, or strep. These germs cause strep throat, an infection that commonly affects school-aged children, but can be found in adults as well.

It's important to find out whether strep is the cause of a sore throat because prompt treatment can decrease symptoms and reduce the risks of complications, such as rheumatic fever (which can cause heart damage). To determine this, doctors usually perform either a strep screen or throat culture.

In the strep screen, the doctor or medical assistant wipes the back of the throat with a long cotton swab. This will tickle the back of the throat, and at times cause a gag reflex. While a strep screen can be uncomfortable for a few seconds, it should not be painful.

In the laboratory, the swab is placed in a test tube with a chemical mix that extracts part of the strep germ (the antigen) from the swab. This extract is then combined with antibodies, which attach to the strep antigen if it is present. A third substance is added to the tube that detects the antigen-antibody combination. If this combination is present, a color change is seen. This means that strep was present in the initial sample from the throat swab.

The specimen for a throat culture is taken in the same way, but the fluid from the swab is put into a culture dish in which the bacteria from the specimen must be grown for two to three days before strep germs, if present, can be identified.

A positive strep screen or throat culture means the person has strep throat and would benefit from taking antibiotics to kill the strep germs. A rapid strep screen can offer results in minutes, whereas a throat culture takes two to three days. Waiting for results will still leave enough time to treat the strep infection and avoid potentially serious, preventable complications. Sometimes, depending on the severity of the symptoms and other specific circumstances, your doctor may recommend beginning antibiotic treatment while waiting for the culture results.

If the rapid strep screen is negative, a throat culture is done as well because the rapid test can miss some cases of strep throat. Often, the doctor will take both samples at once, in case the culture is needed. That way you only have to feel uncomfortable once.

If the throat culture results are negative for strep, antibiotic treatment can be avoided or stopped. This reduces the risk of experiencing an allergic reaction or other side effects from unnecessary antibiotic treatment. A negative throat culture means that a virus is probably the cause of the sore throat.