TEST

Throat swab culture

A throat swab culture checks a throat sample for bacteria or fungi that may be causing infection.

WHAT IT MEASURES
Growth of bacteria or fungi collected from the throat

SAMPLE
Swab from the tonsils and back of the throat

FASTING NEEDED?
No

HOW LONG IT TAKES
Less than five minutes

RESULTS IN
One to two days, sometimes longer by laboratory

USED FOR
Diagnosis

MAIN LIMITATION
Recent antibiotics or poor swabbing can cause false-negative results

Overview

A throat swab culture is a laboratory test used to look for germs in the throat. A healthcare professional rubs a sterile swab over the tonsils and the back of your throat. The sample is placed on material that helps bacteria or fungi grow.

The most common reason for this test is to look for group A Streptococcus , the bacterium that causes strep throat. The laboratory may also look for other organisms if they are specifically requested.

A culture is different from a rapid strep test. A rapid test can give an answer during the visit, while a culture usually takes at least a day because the organisms need time to grow. A culture can find some infections that a rapid antigen test misses.

Why the test is ordered

A throat culture may be ordered when your symptoms could be caused by bacteria rather than

a virus. Symptoms that may lead to testing include a sudden sore throat, pain when swallowing, fever, swollen neck glands, or red and swollen tonsils.

Cough, a runny nose, hoarseness, and mouth ulcers are more often associated with viral infections. Testing may not be useful when these features clearly suggest a virus, although your full clinical picture matters.

The test may be used to:

A standard throat culture does not automatically test for every possible throat infection. For example, suspected gonorrhea, diphtheria, or a fungal infection may require special collection methods, laboratory media, or separate tests.

- Check for group A strep
- Confirm a negative rapid strep test, especially in children
- Investigate ongoing or repeated throat symptoms
- Look for a less common bacterium or fungus when specifically requested
- Help guide treatment when the organism's identity matters

Who should have the test

You may be offered a throat culture if you have symptoms that fit strep throat and the result would affect treatment. In children and teenagers, a culture is often used to check a negative rapid strep result because untreated group A strep can occasionally cause complications.

Adults may be tested when the cause is unclear, symptoms are significant, or confirmation would change care. A backup culture after a negative rapid test is not routinely needed for every adult, but it may be appropriate in some clinical situations.

People without symptoms are not usually tested. Some people carry group A strep in their throat without being ill, so testing without symptoms can produce a positive result that does not explain a current health problem. Testing may still be considered during certain outbreaks or for other specific public health reasons.

How to prepare

You do not need to fast. In most cases, you can eat, drink, and take your usual medicines before the swab unless the clinic gives different instructions.

Tell the healthcare professional if you are taking, or recently took, an antibiotic. Antibiotics like

amoxicillin or doxycycline can reduce the number of bacteria in your throat and make a culture negative even when bacteria were present earlier. Do not stop a prescribed medicine just to prepare for the test.

You may be asked not to use an antiseptic mouthwash immediately beforehand. If the test is being done for an unusual organism, follow any collection instructions carefully because special handling may be needed.

What happens during the test

You will usually sit upright and tilt your head back. A healthcare professional may press your tongue down gently with a flat tool so they can see your throat.

A sterile swab is passed through your mouth and rubbed over both tonsils, the tonsillar areas if your tonsils have been removed, and the back of your throat. The swab should avoid touching your tongue, cheeks, and teeth because these areas contain many normal mouth bacteria.

The swab may make you gag briefly. Collection usually takes only a few seconds.

The sample is sent to a laboratory and placed onto culture material. Laboratory staff check it for growth and identify organisms that could be causing infection. Additional testing may be performed if a particular organism or antibiotic resistance is a concern.

Understanding your results

A positive result means that the laboratory grew and identified an organism from your throat sample. If group A strep is found and your symptoms fit strep throat, your healthcare professional may recommend antibiotic treatment.

A positive culture does not always prove that the organism is causing your symptoms. Some people carry bacteria such as group A strep without illness while having a sore throat caused by a virus. Your symptoms, examination, recent infections, and test history help with interpretation.

A negative result means that the requested organism did not grow. This makes infection with that organism less likely, but it does not rule it out completely. The result may also be reported as normal throat flora, meaning the usual mixture of harmless organisms grew without a clear disease-causing bacterium.

Results and reporting methods vary by laboratory, age, sex, pregnancy status, medicines, and clinical context. Unlike many blood tests, a throat culture usually reports whether a particular

organism grew rather than giving a universal numerical reference range.

What affects the results

The test result can be misleading even when the laboratory performs the culture correctly.

Important influences include:

Age, pregnancy, kidney function, exercise, and time of day do not usually change the culture directly. Medicines that suppress the immune system may alter how an infection appears, but antibiotics and antiseptic products are the main medicine-related concerns for the sample itself.

- Recent antibiotics: These may suppress bacterial growth and cause a false-negative result
- Collection site: A swab that misses the tonsils and back of the throat may collect too little of the organism
- Touching the mouth: Contact with the tongue, cheeks, or teeth can add normal mouth bacteria
- Transport delays: Poor storage or a long delay before processing may reduce the survival of some organisms
- The requested test: Some bacteria and fungi need special culture conditions and will not appear reliably on a routine culture
- Carrier status: A healthy carrier can have a positive group A strep culture during an unrelated viral sore throat
- Timing: Testing after an infection has started to improve, especially after treatment, may reduce the amount of recoverable bacteria

Accuracy and limitations

A correctly collected throat culture is commonly used as the reference test for group A strep. It generally finds more cases than a rapid antigen test, but it is not perfect.

There is no single miss rate that applies to every laboratory. A culture is more likely to miss an infection if too little material is collected, antibiotics were started first, the sample is transported poorly, or the organism requires special culture conditions.

A laboratory false-positive result is uncommon when a bacterium grows and is identified

correctly. However, the result can still give the wrong clinical impression. The culture may find bacteria that you carry normally rather than the cause of your symptoms.

Rapid antigen tests are useful when an answer is needed during the visit, but they can miss some group A strep infections. Molecular tests, which look for bacterial genetic material, can produce results faster than culture and may find more infections. However, they may also detect carriage or genetic material that does not prove the bacteria are causing current symptoms.

Culture may be the better choice when confirmation, identification of an unusual organism, or testing of a live organism is needed.

Risks and complications

The swab may briefly cause gagging, coughing, or mild throat discomfort. Serious complications are not expected from routine throat swab collection.

What happens next

Most results are available within one to two days, although slower-growing organisms or extra testing can take longer. Ask how and when the clinic will provide your result.

A positive result is interpreted alongside your symptoms and examination. Treatment is not based on the laboratory wording alone, because some organisms represent carriage or do not require antibiotics.

A negative result often needs no further testing if you are recovering. If symptoms continue or worsen, routine follow-up may include another examination, a molecular test, or testing for a different cause.

Seek urgent medical care if you cannot swallow fluids, are drooling because you cannot swallow, have increasing neck swelling, have signs of dehydration, or develop a markedly muffled voice. Call emergency services for difficulty breathing, blue or grey lips, severe confusion, or collapse.

Common questions

Can I drink coffee before a throat culture?

Usually, yes. Fasting is not required. If possible, follow the clinic's instructions about avoiding

food, drinks, or antiseptic mouthwash immediately before collection.

Does the time of day matter?

Usually not. A throat culture can be collected at any time the service is available. Recent antibiotic use and the quality of the swab matter more than the time of day.

Can I exercise beforehand?

Yes. Exercise does not usually affect bacterial growth from a throat swab.

Can I brush my teeth first?

Usually, but avoid vigorously gargling with an antiseptic mouthwash immediately before the test unless you are told otherwise. Toothpaste itself is not usually a reason to delay testing.

How long after starting antibiotics will the test stay positive?

There is no fixed time. Antibiotics can quickly reduce the number of bacteria and may cause a negative culture. Tell the healthcare professional when you started treatment and which medicine you took.

Is a throat culture the same as a rapid strep test?

No. A rapid antigen test looks for parts of group A strep and can give a quick result. A culture grows live organisms in a laboratory, takes longer, and may find infections missed by a rapid test.

Sources

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