

Strep throat is an infection most often caused by Strep A bacteria. It can feel similar to other sore throat illnesses, but strep matters because once it's confirmed, it can be treated effectively. If not treated, Strep will lead to serious, long-term disease.

Right now, most people can only get a strep test and the right treatment by going to a doctor's office or urgent care. Many clinics use a quick rapid antigen test, which looks for bacterial proteins. If that test is negative, doctors are required to order a confirmatory lab test to make sure strep isn't missed. Some clinics use molecular testing devices instead - high-accuracy tests that detect genetic material and are considered lab-quality but are built for office use.

Anywhere Dx has developed a molecular Strep A test intended to match lab-quality performance, in a format designed to be simple and accessible outside the clinic.

Easy to use – Easy to read

1. Collect a sample (inside cheek swab)



2) Mix the swab in a solution



3) Insert the prepared sample into the device



4) Wait 15min to results



Molecular vs Antigen: why DNA detection matters

✗ Antigen tests look for proteins

An antigen test detects proteins produced by the bacteria. Proteins are created based on the organism's genetic instructions.

Key limitation: Proteins may be too low to detect unless a person has a high bacterial load, which can increase the chance of false negatives when levels are lower

✓ Molecular tests look for DNA

A molecular test looks directly for DNA, and because it includes an amplification step, it can detect very small amounts of DNA by copying it until it becomes easy to measure.

That's why molecular testing is often described as:

- Lab-quality
- PCR-like in principle
- Highly accurate, because it does not depend on having a high bacterial load in order to see enough signal

How it works

1. Sample collection (simple cheek swab vs throat swab)

Current strep tests require uncomfortable and invasive throat swab, because Strep A bacteria live in the throat and many traditional rapid tests need a higher amount of bacteria to detect the infection.

Anywhere Dx uses a molecular approach that detects Strep A DNA and then amplifies it. Because DNA amplification is far more sensitive, we only need traces of DNA that can be found in saliva with a simple non-invasive cheek swab.

2. Sample cleaning (making different mouths “test-ready”)

Saliva is a convenient sample, but it’s also complex - *everyone’s saliva is different*. Food residue, mucus, medications, and natural biological differences can introduce substances that interfere with molecular chemistry. These are called **inhibitors**, because they can slow down or block the DNA amplification reaction.

A core part of our innovation is a simple biological clean-up step that removes inhibitors and helps make samples more consistent. In plain terms: it helps make saliva from different people behave more similarly in the test, so the device can run reliably across a wide range of users. Without this step, at-home molecular tests are more likely to see errors, failed reactions, or inconsistent performance.

3. Amplification process (isothermal DNA amplification + precise heating)

The heart of the system is the amplification process, this is how we detect extremely small amounts of Strep A DNA.

➤ The biologics (finding the right target and copying it)

Inside the device, the prepared sample mixes with a targeted design of biologic reagents and primers (enzymes and molecular “guides”). These reagents are designed to:

- Recognize Strep A DNA specifically (the correct target)
- Copy it repeatedly if it’s present (amplification)

This is what supports high sensitivity (finding small amounts) and high specificity (finding the right organism).

➤ Isothermal amplification

Many people have heard of PCR, which is a molecular process that is run on a very expensive and complex lab instrument. We can mimic the sensitivity and reliability of PCR with a molecular process using isothermal amplification that can be done without any instrument.

➤ Temperature control (one steady controlled temperature at ~65°C)

To make isothermal amplification work, the device must hold the reaction at a steady temperature of about 65°C for the duration of the test. Anywhere Dx uses an integrated heating system designed to reach and maintain that temperature consistently so the chemistry can run efficiently.

4. Readout (simple, familiar lines)

Finally, the test converts the molecular detection event into an easy-to-read visual result using a lateral flow strip inside the device window. This style of readout is widely recognized because it’s used in many common tests.