

Sore Throat: When Is It Strep?

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Pharyngitis is the term used to describe any inflammation of the pharynx, or throat. Sore throat is a very common complaint for which children and adolescents seek medical care. Pharyngitis is usually caused by a bacteria or a virus.

The most well-known cause of pharyngitis, or sore throat, is the bacteria known as Group A Streptococcus (GAS). This infection is the most common cause of pharyngitis that is treatable with antibiotics, but it is NOT the most common cause of sore throat. In fact, only about 1 in 10 to 1 in 5 cases of pharyngitis in children and adolescents are caused by Strep, and fewer in adults.

It is important, however, to identify cases of GAS pharyngitis because antibiotic treatment leads to a more rapid cure (by an average of 1 day), and decreases the spread of the bacteria. Most important, early recognition and treatment can also prevent some serious complications of GAS, such as abscesses, infected lymph nodes, sinusitis, pneumonia, and (within a few weeks) kidney disease and acute rheumatic fever.

What are some other causes of sore throat?

MOST cases of pharyngitis are caused by viruses, such as adenovirus, parainfluenza viruses, influenza viruses, enteroviruses, and EBV, the virus that causes many cases of mononucleosis ("mono").

There are also a few other bacteria that can cause pharyngitis, but these are unusual. Some sexually transmitted diseases can even cause sore throat, in teens who engage in oral-genital sex. However, over eighty percent of pharyngitis cases are caused by a virus.

Sore throats can also be caused by irritation from cigarette smoke or other noxious chemicals, from dryness such as in dehydration, and from persistent sinus drainage, such as during an upper respiratory infection ("cold"), sinus infection or seasonal allergies.

How can a parent tell the difference between a viral throat infection and strep throat?

The biggest difference between strep throat and viral pharyngitis is that viral infections almost always cause some degree of congestion, runny nose, and/or cough. Patients with pharyngitis caused by GAS almost always do NOT have cough or nasal symptoms.

Both strep throat and viral pharyngitis can cause fever. Pharyngitis caused by GAS usually causes fevers >102 for the first few days, but there are many viruses that will also cause such high fevers. The presence or absence of fever is not a reliable marker for any one cause of pharyngitis.

Many parents believe that "pus on the tonsils", or "white pus pockets", is a sign of strep throat. This is NOT true. While pharyngitis caused by GAS can *sometimes* cause what

doctors refer to as “exudate”, in MOST cases of strep throat no exudate is present. More often, the presence of exudate indicates a viral cause to the pharyngitis.

Both viral and bacterial pharyngitis can also cause swollen lymph nodes in the neck. Once again, the presence or absence of “enlarged glands” does not help to point to one cause over another.

When do I schedule an office visit for my child’s sore throat?

If your child has had a sore throat and fever for at least 36 hours AND has NO symptoms of a cold (cough, runny nose, congestion), an office visit is advised to rule out strep throat.

If your child has a fever and sore throat, AND has cold symptoms, there is NO need for an office visit to check for strep, UNLESS there has been a known exposure to the bacteria (such as a classmate, friend, or family member).

We prefer not to see children for sore throat before 36 hours into the illness, because of the high rate of false negative results with strep testing this early. The tests for strep become much more accurate after 36-48 hours of illness.

What other symptoms can strep throat cause?

GAS can not only cause pharyngitis, or sore throat, but also headache, stomachache, and a general feeling of fatigue and crumminess.

A rash may also appear within seven days of becoming ill; this rash is NOT the same thing as “scarlet fever”. About 10 percent of children with pharyngitis caused by GAS will develop a fine, red, “sandpaper” rash on all or parts of their body as part of the illness. This does NOT mean that the illness is extra severe. The rash will go away usually within a few days.

What are other signs of which to be concerned?

Sore throat with great difficulty swallowing (even of liquids), or with drooling, is a very urgent situation, as is a “hot potato” voice, significant neck swelling or stiffness, or significant swelling on just one tonsil.

Blood in the urine, or swelling of the face and/or hands is also cause for concern. These conditions may indicate that the kidney has been affected by the toxins released by untreated GAS illness.

What antibiotics are used to treat strep throat?

Penicillins are still the mainstay of treatment, but they do fail in 10-15 percent of cases. Children who are allergic to penicillin, or who fail to improve (or quickly recur) despite a 10-day course of penicillin, may be prescribed either azithromycin, clindamycin, cephalexin, or cefadroxil.

In order to eliminate the risk of subsequent heart or kidney disease, it is CRUCIAL that children receive the FULL course of treatment, even if symptoms quickly resolve.