

Streptococcal Pharyngitis (Strep throat)

Disease Fact Sheet Series

What is streptococcal pharyngitis?

Streptococcal pharyngitis (sore throat), or "strep throat", is an infection of the throat and tonsils caused by the bacteria *Streptococci pyogenes*, also known as Group A streptococci (GAS).

What are the symptoms of streptococcal pharyngitis?

The symptoms of streptococcal pharyngitis include sore throat, pain on swallowing, fever, swollen and tender lymph nodes in the neck, and fatigue. The tonsils are swollen and often covered with pus. The roof of the mouth may have fine red lesions called petechiae. Cough, hoarseness, and runny nose are NOT symptoms of streptococcal pharyngitis, but indicate viral upper respiratory infections. It is important to realize that most sore throats are not due to streptococcal infections. When strep throat is accompanied by a red rash and fever, it is called scarlet fever.

If left untreated, streptococcal pharyngitis lasts from 2 to 5 days; with antibiotics it lasts about 1-3 days. The rash of scarlet fever fades after several days but can be followed by flaking or peeling skin, especially around the fingertips, 1 to 3 weeks later.

How does a person get streptococcal pharyngitis?

Streptococcal pharyngitis usually results from direct contact with another person with streptococcal pharyngitis. Asymptomatic carriers can play a role in transmission, particularly during outbreaks.

Who can get streptococcal pharyngitis?

Anyone can get streptococcal pharyngitis, but the infection is most common in school-age children.

How long does it take to develop streptococcal pharyngitis following exposure?

The incubation period of streptococcal pharyngitis usually is 1-3 days.

How is streptococcal pharyngitis diagnosed?

Streptococcal pharyngitis is usually diagnosed by culturing a swab of the throat. Results of a throat culture are usually known after 2 days. In recent years, a number of "rapid tests" utilizing a swab of the throat have become available. While "rapid tests" for streptococcal pharyngitis have some limitations, results are available in 15 minutes.

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How is streptococcal pharyngitis treated?

Streptococcal pharyngitis is usually treated with either a single injection of penicillin or with a 10-day course of antibiotics.

How long is a person with streptococcal pharyngitis infectious?

A person with streptococcal pharyngitis is non-infectious after 24 hours of appropriate antibiotic therapy. Without treatment, communicability may last for several weeks after the symptoms of pharyngitis have stopped. Children with streptococcal pharyngitis should not return to school until after they have completed 24 hours of antibiotic treatment and the fever has resolved.

What are the complications of streptococcal pharyngitis?

The two major complications of streptococcal pharyngitis are rheumatic fever and post-streptococcal glomerulonephritis.

Rheumatic fever is a serious complication that may rarely occur among untreated cases of streptococcal pharyngitis. Symptoms of rheumatic fever may include symptoms of heart failure, pain and swelling of the joints, involuntary movements (termed chorea), fever, rash, and nodules under the skin. The valves of the heart may be permanently damaged by rheumatic fever. Rheumatic fever develops 2-5 weeks after streptococcal pharyngitis. Rheumatic fever became quite rare in the United States during the 1970's but, for unknown reasons, an increasing number of cases have been recognized since the mid-1980's.

Post-streptococcal glomerulonephritis is a very rare complication that follows roughly 10 days after the onset of streptococcal infection and results in temporary kidney failure. Symptoms may include decreased urine output, dark urine, mild swelling, usually around the eyes, and fatigue. Hypertension (high blood pressure) may develop. Long-term prognosis is excellent.

What can be done to prevent streptococcal pharyngitis and its complications?

Early recognition and treatment of streptococcal pharyngitis is fundamental to prevent spread and development of complications of GAS infections. Individuals given antibiotics for streptococcal pharyngitis need to take the entire course of medicine according to the directions. It has also been shown that avoiding the consumption of raw milk and products made from raw milk can decrease the chance of exposure to GAS infections.

Individuals with a history of rheumatic fever should receive antibiotic prophylaxis until at least age 40 years and, in some cases, for life.

Should asymptomatic contacts of persons with streptococcal pharyngitis receive antibiotics?

No. Only people with symptoms and a positive culture for Group A streptococci (*Streptococcus pyogenes*) should be given antibiotics.