

## STREP THROAT (STREPTOCOCCAL PHARYNGITIS)

### Disease Description

[Strep throat](#) is an infection of the throat and tonsils caused by group A streptococci (GAS), also known as *Streptococcus pyogenes*. Streptococci are among the most common causes of bacterial infections encountered in the pediatric population. Group A streptococcal (GAS) infections account for most cases of bacterial tonsillopharyngitis, though most upper respiratory infections are due to viruses. This bacteria can also cause other infections, such as impetigo or otitis. The concern about GAS is related to complications involving the heart and joints (acute rheumatic fever) and kidneys (glomerulonephritis) that can follow group A streptococcal infection. Acute streptococcal pharyngitis is uncommon in children younger than three years. Rates of infection are highest among school age and young adults.

Children with acute onset of sore throat, fever, headache, pain on swallowing, abdominal pain, nausea, vomiting, and enlarged tender anterior cervical lymph nodes are more likely to have GAS as the cause of their pharyngitis and should have a rapid antigen test and/or throat culture performed. However, the most frequent cause of sore throat in children is viral infection, not strep throat. About 15% of children who present to the health care setting with sore throat will have strep.

Scarlet fever sometimes occurs in association with strep throat. The rash is caused by a toxin released by the bacteria. It may involve the trunk, extremities and face. It often has a texture similar to fine sandpaper. The rash fades in 3-7 days, leaving a very fine desquamation which flakes. Presence of rash does not increase the severity of the disease.

### Time Between Exposure and Appearance of Symptoms (Incubation Period)

Symptoms of strep throat usually occur 2-5 days after contact with someone who has a strep infection.

### How a Person Acquires Strep Throat (Method of Spread)

Strep throat is spread by respiratory droplet; contact with large droplets that form when a person talks, coughs, or sneezes. These droplets can land on or be rubbed into the eyes, nose, or mouth. These droplets do not stay in the air; they travel less than 3 feet and fall onto the ground.

Strep throat is diagnosed by a throat culture. The results are available 24-48 hours after the culture is done. Rapid tests are also available with results in 10-15 minutes. However, a negative rapid strep may be a false negative and must be backed up with a throat culture.

Many people carry the bacteria that cause strep throat in their nose and throat and are not ill. The risk of transmission from someone who is not sick but is carrying the bacteria is low.

### **Length of Time Strep Throat Can Be Spread (Period of Communicability)**

The risk of spread is reduced when a person who is ill with strep throat is treated with antibiotics. Even if untreated, most children and adults with group A streptococcal infections recover on their own. When untreated, communicability is gradually diminished over a period of weeks.

### **Treatment**

Strep can be treated with antibiotic therapy. The treatment is given to prevent complications of the strep throat infection which is mainly acute rheumatic fever.

### **Initial Management**

[WI Communicable Disease Chart](#)  
WISHeS Illness and Injury Protocol: [Sore Throat](#)  
See [Sore Throat](#)

1. Obtain subjective data:
  - a. Symptoms
  - b. History of frequent strep infections
  - c. Any household/close contacts with similar symptoms
2. Obtain objective data:
  - a. Inspect skin for rash
  - b. Inspect oropharynx
    - i. color, inflammation, exudate, tongue color and petechiae on soft palate.
  - c. Palpate cervical lymph nodes.
  - d. Measure temperature.
3. If indicated by above signs, contact parent/guardian and refer student to health care provider for throat culture/rapid strep test.
4. If cough and runny nose are the major symptoms, strep is unlikely.
5. Exclusion is not necessary at this point if the student is feeling well enough to participate in classroom activities and does not have a temperature greater than 100.4°F.
6. Document in electronic student health record
  - a. Subjective data
    - i. Symptoms
    - ii. Household/close contacts ill
  - b. Objective data

- i. Oropharynx findings
  - ii. Skin findings
  - iii. Vital Signs
- c. Intervention
  - i. Care provided
  - ii. Education Provided

### Follow-up

1. Refer to nurse for diagnosis and treatment if student has no health insurance or has significant barriers to accessing health care.
2. If throat culture or rapid test is positive, explain MMSD medication policy and encourage scheduling of medication around school hours (e.g., before school, after school, dinner time, and bedtime).
3. Student may return to school 24 hours after beginning antibiotics, as long as they have been fever-free for 24 hrs without the use of fever-reducing medication.
4. Follow up with classroom teacher to monitor for symptoms of possible spread of disease.
5. Symptomatic contacts of children with confirmed strep throat who have recent or current clinical evidence of group A streptococcal infection should have a throat culture/rapid strep test.

### References

Center for Disease Control and Prevention. Is it Strep Throat? Retrieved June 24, 2023 from <http://www.cdc.gov/Features/StrepThroat>

Wald, E. (2024). Group A streptococcal tonsillopharyngitis in children and adolescents: Clinical features and diagnosis. *Up To Date*. Retrieved June 24, 2023 from [https://sso.uptodate.com/contents/group-a-streptococcal-tonsillopharyngitis-in-children-and-adolescents-clinical-features-and-diagnosis?search=strep%20pharyngitis&source=search\\_result&selectedTitle=3%7E103&usage\\_type=default&display\\_rank=2](https://sso.uptodate.com/contents/group-a-streptococcal-tonsillopharyngitis-in-children-and-adolescents-clinical-features-and-diagnosis?search=strep%20pharyngitis&source=search_result&selectedTitle=3%7E103&usage_type=default&display_rank=2)