

## Group A Streptococcus (Strep) Fact Sheet

1. **What is Group A streptococcus (GAS)?** Group A streptococcus is a bacterium often found in the throat and on the skin. People can carry Group A streptococci in the throat or on the skin and have no symptoms of illness. Most GAS infections are relatively mild illnesses such as "strep throat," or impetigo. On rare occasions, these bacteria can cause other potentially life-threatening diseases. Such diseases may occur when bacteria get into parts of the body where bacteria are not typically found, such as the blood, muscle, or the lungs. These infections are termed "invasive GAS disease." Two of the most severe, but least common, forms of invasive GAS are necrotizing fasciitis and Streptococcal Toxic Shock Syndrome.
2. **How are group A streptococci spread?** These bacteria are spread through direct contact with mucus from the nose or throat of persons who are infected or through contact with infected wounds or sores on the skin. Ill persons, such as those who have strep throat or skin infections, are most likely to spread the infection. Persons who carry the bacteria but have no symptoms are less contagious. Treating an infected person with an antibiotic for 24 hours or longer generally eliminates their ability to spread the bacteria. However, it is very important to complete the entire course of antibiotics as prescribed. It is not likely that household items like plates, cups, or toys spread these bacteria person-to-person.
3. **What illnesses are caused by group A streptococcal infection?** Infection with GAS can result in a wide range of diseases and symptoms:
  - a. No illness,
  - b. Mild illness (strep throat or a skin infection such as impetigo)
  - c. Severe illness (necrotizing fasciitis, streptococcal toxic shock syndrome).
4. **What is necrotizing fasciitis?** Necrotizing fasciitis (occasionally described by the media as "the flesh-eating bacteria") is invasive GAS disease that destroys muscles, fat, and skin tissue. Approximately 20% of patients with necrotizing fasciitis die.
5. **What is Streptococcal toxic shock syndrome (STSS)?** STSS causes blood pressure to drop rapidly and organs (e.g., kidney, liver, lungs) to fail. STSS is not the same as the "toxic shock syndrome" frequently associated with improper tampon usage. More than half of patients with STSS die.
6. **How common is invasive Group A Streptococcal disease?** Approximately 9,000–11,500 cases of invasive GAS disease occur each year United States, resulting in 1,000–1,800 deaths. Necrotizing fasciitis and STSS each comprise an average of 6%–7% of these invasive cases. In contrast, there are several million cases of strep throat and impetigo each year.

7. **Why does invasive group A streptococcal disease occur?** -Invasive GAS infections occur when the bacteria get past the body's natural defense mechanisms. This may occur when a person has sores or other breaks in the skin that allow the bacteria to get into the tissue, or when the person's ability to fight off the infection is decreased because of chronic illness or an illness that affects the immune system. Also, some strains of GAS are more likely to cause severe disease than others.
  
8. **Who is most at risk of getting invasive group A streptococcal disease?** -Few people who come in contact with GAS will develop invasive GAS disease. Most people will have a throat or skin infection, and some may have no symptoms at all. Although healthy people can get invasive GAS disease, people with chronic illnesses like cancer, diabetes, and kidney dialysis, and those who use medications such as steroids have a higher risk. Persons with skin lesions (such as cuts, chicken pox, surgical wounds), the elderly, and adults with a history of alcohol abuse or injection drug use also have a higher risk for disease.
  
9. **What are the early signs and symptoms of necrotizing fasciitis?**
  - a. Fever
  - b. Severe pain and swelling, often rapidly increasing
  - c. Redness at wound site
  
10. **What are the early signs and symptoms of streptococcal toxic shock syndrome?**
  - a. Fever
  - b. Abrupt onset of generalized or localized severe pain, often in an arm or leg
  - c. Dizziness
  - d. Confusion
  - e. Flat rash over large areas of the body (only occurs in 10% of cases)
  
11. **How is invasive Group A streptococcal disease treated?** - GAS infections can be treated with many different antibiotics. Early treatment may reduce the risk of death from invasive group A streptococcal disease. However, even the best medical care does not prevent death in every case. For those with very severe illness, supportive care in an intensive care unit may be needed. For persons with necrotizing fasciitis, surgery often is needed to remove damaged tissue and stop disease spread.
  
12. **How can group A streptococcal infections be prevented?** - The spread of all types of GAS infection can be reduced by good hand washing, especially after coughing and sneezing and before preparing foods or eating. Persons with sore throats should be seen by a doctor who can perform tests to find out whether the illness is strep throat. If the test result shows strep

throat, the person should stay home from work, school, or day care until 24 hours after starting an antibiotic. All wounds should be kept clean and watched for possible signs of infection such as redness, swelling, drainage, and pain at the wound site. A person with signs of an infected wound, especially if fever occurs, should seek medical care. It is not necessary for all persons exposed to someone with an invasive group A strep infection (i.e. necrotizing fasciitis or strep toxic shock syndrome) to receive antibiotic therapy to prevent infection. However, in certain circumstances, antibiotic therapy may be appropriate. That decision should be made after consulting with your doctor.

**13. For more information about Group A Streptococcal Disease:**

[http://www.cdc.gov/ncidod/dbmd/diseaseinfo/Groupastreptococcal\\_g.htm](http://www.cdc.gov/ncidod/dbmd/diseaseinfo/Groupastreptococcal_g.htm)

This fact sheet provides general information. Please contact your physician for specific clinical information related to you or your animal.