

Group A Streptococcus Disease

What is Group A Streptococcus (Group A Strep)?

Group A *Streptococcus* (Group A Strep) are bacteria that are often found in the throat and on the skin. These bacteria might be present and not cause any illness, or they can infect different parts of the body and cause disease that can range from mild to severe. The most common infections caused by Group A Strep are strep throat and wound infections. Serious disease can result when the bacteria invade internal parts of the body, such as the bloodstream, which is called invasive Group A Strep disease.

Who gets Group A Streptococcus and invasive Group A Streptococcus disease?

Anyone can get a Group A Strep infection. Strep throat is particularly common in children. Few people who come in contact with the bacteria will develop invasive Group A Strep disease. Although healthy people can get invasive Group A Strep disease, people with chronic illnesses like cancer, diabetes, and chronic heart or lung disease, and those who use medications such as steroids have a higher risk. Persons with skin lesions (such as cuts, chickenpox, and surgical wounds), the elderly, and adults with a history of alcohol abuse or injection drug use also have a higher risk for disease.

How are Group A Streptococcus bacteria spread?

These bacteria are spread by direct contact with body fluids, such as secretions from the nose and throat or a wound of an infected person. Casual contact (as in work and school) and household items (like plates, cups, toys, etc.) rarely play any role in spreading the bacteria. The risk of spread of Group A Strep is greatest when an individual is ill; people who carry the bacteria but have no symptoms are much less contagious. Infected persons are no longer contagious after they have been treated with an appropriate antibiotic for at least 24 hours; however, it is important to take all of the antibiotics as prescribed.

What are the symptoms of illnesses caused by Group A Streptococcus?

Group A Strep infections can result in no illness at all, mild illness (strep throat or a skin infection such as impetigo) or severe illness (necrotizing fasciitis or streptococcal toxic shock syndrome). Necrotizing fasciitis (occasionally described by the media as "the flesh-eating bacteria") destroys muscles, fat, and skin tissue. Streptococcal toxic shock syndrome (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 tampon usage. About 20% of patients with necrotizing fasciitis and more than half with STSS die. About 10%-15% of patients with other forms of invasive Group A Streptococcal disease die.

How soon after exposure do symptoms appear?

Symptoms of Group A Strep infection usually appear within one to three days after exposure to the bacteria.

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How is Group A *Streptococcus* infection diagnosed?

Group A Strep infections are diagnosed by laboratory tests that confirm that the bacteria are present in specimens taken from the site of infection (e.g., throat, wound, blood). Rapid tests to identify strep throat also exist.

What is the treatment for Group A *Streptococcus* infection?

Group A *Streptococcus* infections can be treated with antibiotics. In addition, treatment in an intensive care unit and sometimes surgery are often necessary for invasive disease. Early treatment may reduce the risk of death, but it is not always possible to prevent death in every case.

Should contacts of individuals with invasive Group A *Streptococcus* disease be tested and treated?

There is no evidence that casual contacts, such as co-workers or school and daycare classmates, are at risk of developing invasive Group A Strep disease following contact with a person who has an invasive Group A Strep disease. Household contacts have rarely developed severe disease. Local health departments evaluate households when invasive Group A Strep disease is reported; antibiotics may be recommended for individuals in households where someone has a condition that puts them at risk of a severe Group A Strep infection. Persons who have been in contact with someone with a Group A Strep infection should seek medical care if they develop similar symptoms of illness.

What can be done to help prevent invasive Group A *Streptococcus* disease?

The spread of Group A *Streptococcus* may be reduced by good hand washing, especially after coughing and sneezing, before and after caring for an ill person, and before preparing foods and before eating. Persons with Group A Strep infections should stay home from work, school, or daycare until they have taken antibiotics for at least 24 hours. All wounds should be kept clean and watched for signs of infection (e.g., redness, swelling, pain, pus). If a wound looks infected, especially in a person who also has a fever, consult a healthcare professional immediately.

How common is invasive Group A *Streptococcus* disease?

About 9,000-11,500 cases of invasive Group A *Streptococcus* disease occur each year in the U.S., resulting in 1,000-1,800 deaths annually. In contrast, there are several million cases of strep throat and impetigo each year. In Virginia, about 150-175 invasive Group A Strep cases are reported each year.

How can I get more information about Group A Strep?

- 1) If you have concerns about Group A Strep, contact your healthcare provider.
- 2) Call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/local-health-districts/>.
- 3) Visit the Centers for Disease Control and Prevention website at <https://www.cdc.gov/groupastrep/index.html>.