

Group A Streptococcal Disease

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What is group A streptococcal disease?

Group A streptococci (GAS) are bacteria (germs) that are commonly found in the throat and on the skin of healthy people. Occasionally, these germs can cause sore throat or skin infection. Much less commonly, GAS can cause severe illness called “invasive” GAS disease.

What are the symptoms of GAS disease?

The most common and mildest forms of GAS disease include strep throat (a sore throat, often with a fever, a white coating on the throat and tonsils, and swollen glands in the neck) and skin infections. In some cases, GAS disease may go on to become more serious; scarlet fever, middle ear infections, kidney problems, and rheumatic fever may occur. A serious illness may also occur when the GAS get into parts of the body where bacteria usually are not found such as under the skin, the spinal cord, blood, joints, or lungs. This is called invasive GAS disease and includes the following types of conditions.

Necrotizing fasciitis (occasionally called “flesh-eating bacteria infection”) is a rare infection of tissues under the skin and of the muscles, with redness, swelling and pain associated with an obvious skin wound or other opening in the skin. Symptoms can include fever, fluid-filled blisters on the skin and painful and swollen skin and muscles. Other germs can also cause necrotizing fasciitis. On rare occasions invasive GAS infection occurs in relation to the pocks of chickenpox.

Streptococcal toxic shock syndrome (STSS) is a rare infection that causes internal organs to stop working because of poisons produced by the GAS bacteria. Symptoms can include fever, headache, vomiting, muscle aches, confusion, rash, breathing problems, and if the skin is infected, severe pain at the infection site.

Streptococcal bacteremia/sepsis (“blood poisoning”) is invasive GAS infection that occurs when GAS infects the blood stream. This infection can occur after surgery or other invasive procedure or if you have a wound that becomes infected. It is uncommon. Symptoms may include fever, low blood pressure, fatigue, and muscle weakness. Other germs can also cause bacteremia.

How is GAS spread?

GAS is spread from person to person usually through saliva (spit), by hands with GAS on them and are not washed, or through direct physical contact with infected wounds or sores on the skin. Crowded settings like dormitories, barracks, or daycare centers may make it easier for the germs to pass from person to person. People who have GAS in their throats and noses but are not sick are less likely to pass the germs on to others. A sick person will not pass the germs on to others after he/she has taken antibiotics for at least 24 hours.

How common is GAS?

GAS can be found in many healthy people’s throats and noses, and on their skin, even if they are not sick. Strep throat and minor skin infections (like impetigo) are very common, with an estimated 10 million cases per year in the United States. Invasive GAS infections are rare.



Who gets GAS infection?

Anyone can get strep throat or a minor GAS skin infection. Normally, healthy people are at low risk for getting invasive GAS disease. People with chronic illness like cancer, diabetes, chronic heart disease, HIV infection or alcoholism have a higher risk of getting invasive disease than other people. People who are on kidney dialysis, who are extremely overweight, or who have chickenpox are also at higher risk than healthy people.

How is GAS disease diagnosed?

Your health care provider will take a sample from your throat or other infection site and will test it to find the germ. In some cases (for people with strep throat, for example) a rapid test can be done in your doctor's office; in other cases the sample needs to be tested at a laboratory.

What is the treatment for GAS?

If you are infected with GAS, your health care provider will usually prescribe antibiotics. Remember, it is very important that you finish the entire course of treatment to prevent complications, especially rheumatic fever.

What can you do to prevent GAS infection?

Handwashing is the best way to prevent all types of GAS infection. Handwashing, especially after coughing and sneezing, and before and after caring for a sick person, will help prevent the spread of germs. Avoid sharing food, beverages, cigarettes or eating utensils. Daycare centers should clean toys daily with an approved disinfectant and discourage use of play food.

Keep wounds (like cuts or scrapes) clean and watch for signs of infection; if a wound becomes red or swollen or you have a fever, contact your health care provider. If you have a painful sore throat, you should consult your health care provider. Anyone diagnosed with GAS infection should not go to school, daycare, or work, if they are a health care worker or foodhandler, until antibiotics have been taken for at least 24 hours.

For more information:

- Massachusetts Department of Public Health, Division of Epidemiology and Immunization at (617) 983-6800 or toll-free at (888) 658-2850.
- Your local board of health (listed in the telephone directory under "Government")
- Your doctor, nurse, or clinic

