

Diseases Fact Sheet - Streptococcal - Group A Infections

South Dakota Department of Health

Office of Disease Prevention Services - 605-773-3737 -(1-800-592-1861 in South Dakota only)

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What is it?

Group A streptococci (GAS) bacteria are common and can cause a number of conditions ranging from sore throat to potentially fatal toxic shock or destruction of tissue. There are about 80 different serotypes of Group A streptococci.

Who gets group A streptococcal infections?

Anyone can get streptococcal infections. Host susceptibility can affect the severity of infection in individuals. The same type of bacteria can cause severe infection in one person and mild or asymptomatic disease in others. GAS pharyngitis and skin infections are more common in school-aged children than in adults except during epidemics.

How are group A streptococcal infections spread?

Close contact with carriers such as occurs in schools, child care, and military institutions. Transmission can occur by indirect contact with objects or food.

What are the symptoms of group A streptococcal infections?

The most common clinical illness produced by GAS is sore throat ("strep throat"). Some people with "strep throat" are sensitive to the toxin produced by the GAS strain and may develop a rash called scarlet fever. Some patients with "strep throat", if untreated, can develop complications including: otitis media, sinusitis, infection in the tonsils, pharynx, or adenoids, or rheumatic fever. The second most common site of GAS infection is the skin. Most GAS skin infections are mild (impetigo or pyoderma) but these infections can result in serious kidney complications.

Less common complications of GAS infections include: erysipelas, cellulitis, vaginitis, bacteremia, pneumonia, endocarditis, pericarditis, septic arthritis, osteomyelitis, myositis, puerperal sepsis and in babies, omphalitis. Toxic shock can result from toxins produced by the bacteria and is fatal in 30% of these patients. Of all patients with severe GAS infections, necrotizing fasciitis occurs in 5-10%. Necrotizing fasciitis is a condition where muscle and fat

tissue are broken down by enzymes that certain strains of group A streptococci produce, with a fatality rate between 20-30%.

How soon after exposure do symptoms appear?

The incubation period of GAS pharyngitis is 2-5 days. Skin infections may develop 7-10 days after exposure.

For how long can an infected person carry this bacteria?

In general, patients treated with penicillin will not be able to transmit GAS 24-48 hours after beginning treatment. Patients with uncomplicated GAS pharyngitis, who are not treated with antibiotics, can transmit the bacteria for weeks or months.

Where are the bacteria that cause GAS infection found?

On the skin and in secretions from the nose, throat, vagina or perianal area. Bacteria can contaminate improperly prepared or refrigerated food. Milk and eggs are most frequently associated with food borne outbreaks.

How is it diagnosed?

Rapid strep tests can be performed with a throat swab. Rapid strep tests can provide provisional lab findings in suspected GAS pharyngitis but the sensitivity can be as low as 50-70%. Therefore, when a patient suspected of GAS pharyngitis has a negative rapid strep test, a culture should be performed to confirm the negative finding. Because the rapid strep tests are very specific, a positive test does not require throat culture confirmation.

Indications for culturing throats or lesions of patients, siblings, and other household contacts vary according to circumstances. If contacts of a patient with GAS are symptomatic, they should be cultured. During outbreaks, or if there is an indication of acute rheumatic fever, kidney infection, streptococcal toxic shock or other complication, asymptomatic household contacts should be cultured.

What is the treatment for this bacteria?

A 10-day course of penicillin is the treatment of choice, or, if allergic to penicillin, erythromycin, clindamycin or cephalosporin may be used.

Should an infected person be excluded from work or school?

Children with GAS pharyngitis or skin lesions should not return to school or child care until at least 24 hours after beginning antibiotic treatment or until they no longer have fever. In general, adults need not be excluded from work unless severely ill or are in a food handling



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occupation. Persons with skin lesions should be excluded from food handling duties until a physician determines those lesions are no longer infectious. Good personal hygiene should be emphasized; properly dispose of dressings from skin lesions and wash hands after handling.

Related Sites:

- [Centers for Disease Control & Prevention](#)