

Group A streptococcal infections

What are group A streptococcal infections?

Group A *Streptococcus* bacteria, also known as GAS or strep, can infect anyone at any age. Infections generally result in mild illnesses. The most common GAS infection is strep throat. Other types of common infections include skin and wound infections, ear and sinus infections, and infections in the lymph glands.

In rare cases, the bacteria may enter other parts of the body including the lungs, joints, and the membranes around the heart and brain. This can cause infections of the blood, muscles or lungs, and cause severe illness and tissue damage. These infections are called invasive group A streptococcal disease (also known as iGAS).

Severe forms of iGAS infection cause streptococcal toxic shock syndrome and necrotizing fasciitis. Less commonly, GAS can also cause scarlet fever, rheumatic fever and a form of kidney disease called glomerulonephritis.

What are the symptoms of GAS infections?

Strep throat starts suddenly with a high fever, headache, swollen red throat and tonsils, swollen lymph nodes in the neck, white or yellow patches at the back of the throat and, in children, abdominal pain.

Impetigo is a skin infection and common in children. The bacteria get into scrapes, cold sores, insect bites or patches of eczema. For more information, see [HealthLinkBC File #81 Impetigo](#).

Toxic shock syndrome (TSS) is a rare and serious result of an invasive GAS infection. Symptoms include fever and redness of the skin, shock due to low blood pressure, diarrhea, vomiting, and severe muscle pain. In some cases, it can be fatal.

TSS is caused by toxins produced by the bacteria and can affect all body organs. In B.C., about 1 in 20 cases of invasive GAS infections result in TSS. It is more common in children, older adults, those with chickenpox, people with diabetes, chronic heart or lung disease, and people who are dependent on alcohol or inject illicit drugs.

TSS can also be caused by *Staphylococcus aureus* infection, which has been linked to tampon use in menstruating women. For more information, see [HealthLinkBC File #04 Toxic shock syndrome](#).

Necrotizing fasciitis is a very severe infection more commonly known as flesh-eating disease. It can spread fast through the flesh surrounding muscles. In some cases, death can occur within 18 hours. In other cases, surgery is required to remove the affected body tissue or limb.

The original site of infection on your body may be a minor wound or injury such as a small cut, insect bite or bruise. For more information see [HealthLinkBC File #60 Necrotizing fasciitis \(flesh-eating disease\)](#).

Scarlet fever usually starts with a red rash on the body, which can spread quickly. It feels like sandpaper, fades if you put pressure on it and can cause the skin to peel off. Other symptoms include red swollen lips and red spots on the tongue, sometimes called strawberry tongue.

Rheumatic fever occurs when a strep infection damages the heart's valves which can lead to congestive heart failure or swelling of the lining of the heart. It is a rare complication of strep throat.

Who is at risk of getting group A streptococcal infection?

Household members of a person with a GAS infection or those who have direct contact with the mouth or nose secretions of an infected person are at higher risk of getting infected. However, most infections occur from contact with those whose infection is not causing symptoms.

GAS infection is more common in those with chickenpox.

How is it spread?

Group A *Streptococcus* bacteria are often found in the nose and throat and on the skin of healthy people.

When a person infected with GAS breathes, coughs, or sneezes, the bacteria are spread through the air. If you breathe in air or touch objects contaminated with the bacteria you can become infected. GAS can also spread from person to person through close contact such as kissing, sharing drinking cups, forks, spoons or cigarettes.

What is the treatment for group A streptococcal infection?

GAS infections can be treated with antibiotics. It is important to take all of the

antibiotics that are prescribed and to take them on time.

If you are in contact with someone with invasive GAS you may require antibiotics. Speak to your health care provider for more information.

How can I prevent group A streptococcal infection?

- Wash your hands often. For more information on hand washing, see [HealthLinkBC File #85 Hand washing: Help stop the spread of germs](#)
- Do not share straws, cups, bottles, forks, spoons, cigarettes or anything with saliva on it
- Cough or sneeze into your elbow or sleeve, or use a tissue and then throw it out and wash your hands
- Keep all wounds clean and watch for redness, swelling, fever or increasing pain or drainage at the wound site
- Get the chickenpox vaccine if you are not already protected. For more information, see [HealthLinkBC File #44b Chickenpox \(varicella\) vaccine](#)
- If symptoms occur, get treated early and do not go to work or school until 24 hours after starting antibiotics or the fever is gone



BC Centre for Disease Control
Provincial Health Services Authority

For more HealthLinkBC File topics, visit www.HealthLinkBC.ca/more/resources/healthlink-bc-files or your local public health unit. For non-emergency health information and advice in B.C. visit www.HealthLinkBC.ca or call **8-1-1** (toll-free). For the deaf and hard of hearing, call **7-1-1**. Translation services are available in more than 130 languages on request.