

## **What is a group A streptococcal infection?**

It is any infection caused by a bacteria of a particular type called group A streptococcus (GAS) bacteria. These bacteria are commonly found in the throat and on the skin. About 20% of people carry these bacteria in their throats without getting sick. Most infections caused by GAS are mild and are called non-invasive infections. Sometimes more severe infections occur and these are called invasive infections.

## **What is the difference between non-invasive GAS infections and invasive GAS infections?**

Non-invasive GAS infections include diseases such as strep throat, scarlet fever, impetigo, ear infections, and pneumonia. These infections are less severe and more contagious than invasive group A strep infections. An estimated ten million mild Strep infections (throat and skin) occur each year.

Invasive GAS infections are more aggressive or severe, and may cause conditions known as streptococcal toxic shock syndrome (STSS), rheumatic fever, and necrotizing fasciitis (flesh-eating disease). Invasive infections are caused by particular strains of GAS, known as types M-1 and M-3. These types of bacteria are not common, but can move into the body's tissues (necrotizing fasciitis), or overcome the body's defense mechanisms and enter the blood.

## **Why does infection with invasive group A strep occur?**

Invasive GAS infections occur when the bacteria gets past the person's immune defenses. This is possible when an infected person has sores or other breaks in the skin or a strep throat infection that allow the bacteria to invade the tissue. Health conditions that decrease a person's immunity to infection makes severe GAS-associated infections more likely to occur.

## **What are the early signs and symptoms of invasive group A strep infections?**

Early signs and symptoms of necrotizing fasciitis include fever, severe pain and swelling, and redness at the wound site. The redness quickly spreads over a period of hours to a few days and the skin begins to appear purplish at the initial wound site. Early signs and symptoms of STSS may include fever, dizziness, confusion, diffuse red rash, nausea and vomiting, and abdominal pain. If you experience any of these symptoms, contact your healthcare provider as soon as possible.

## **Who is at risk of getting invasive group A strep infections?**

Very 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 disease, and those who use medications such as steroids have a higher risk. Casual contact does not increase the risk of GAS infection, therefore, children in a classroom setting are not considered at risk of getting invasive GAS. Conditions that increase the risk of developing necrotizing fasciitis include cuts, burns, penetrating injuries, surgical procedures, chickenpox, childbirth, and blunt trauma.

## **How is group A strep spread?**

GAS is spread by direct contact with secretions from the nose and throat of infected persons. It is also spread by direct contact with infected wounds or sores on the skin.

## **What will prevent the spread of group A strep?**

Good hand washing, particularly after coughing and sneezing and before preparing or eating food, is important in preventing the spread of GAS infection. It is important to cover the nose and mouth when coughing and sneezing. In addition, washing, treating, and covering infected wounds and sores prevents the spread of bacteria.

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**Are invasive group A strep infections treatable?**

GAS infections can be treated with many different antibiotics. Invasive infections can be potentially life threatening, however, early treatment will reduce the risk of serious illness.

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