Group A streptococcal (GAS) infection is caused by bacteria known as Group A (beta-haemolytic) Streptococcus, the most common type of which is Streptococcus pyogenes.

GAS is a common infection that can cause sore throats (pharyngitis), scarlet fever or impetigo (school sores). In rare cases it can cause a toxic shock syndrome similar to that caused by the bacteria Staphylococcus aureus, also known as ‘golden staph’. GAS is one of the possible causes of the very rare illness necrotising fasciitis (flesh-eating bacteria).

Occasionally GAS can lead to serious complications such as rheumatic fever, which can affect the heart, and kidney disease (glomerulonephritis).

Symptoms of group A streptococcal infection

Streptococcal sore throat (pharyngitis)
Typical symptoms include of streptococcal sore throat include:
- a sore, red throat with thick pus-like fluid around the tonsils
- fever and chills
- enlarged and tender lymph nodes in and around the neck
- vomiting and abdominal complaints, particularly in children.

Scarlet fever
The symptoms of scarlet fever include:
- inflammation of the throat
- a pink-red rash spreading across the abdomen, side of the chest and in the skin folds. The rash may feel like sandpaper when touched
- a bright red tongue (known as 'strawberry tongue')
- paleness around the mouth.

Impetigo
Streptococcal bacteria can cause impetigo, or ‘school sores’. However impetigo can also be caused by the Staphylococcus aureus ('golden staph') bacteria.

Symptoms of impetigo include:
- blisters, typically around the nose and mouth and the legs
- fever and swollen lymph nodes in severe cases.

Diagnosis of group A streptococcal infection

Infected children should be kept away from school, pre-school or childcare until they have received at least 24 hours of antibiotic treatment and feel well.

GAS can be spread by sneezing, coughing and hand contact, and in rare cases, by contaminated food.
For cases of pharyngitis and scarlet fever, the routine method of diagnosis is identification of the organism from a throat swab. Blood tests may also be ordered.

Impetigo is diagnosed by taking a swab of the blisters or crust of sores and checking for the presence of bacteria.

Toxic shock syndrome is diagnosed by examining symptoms and in some cases, by taking blood tests.

**Person-to-person contact spreads group A streptococcal bacteria**

You can contract group A streptococcal infection after contact with infected persons. The bacteria are present in saliva and nasal discharge so sneezing, coughing and shaking hands can spread the bacteria.

In rare cases the infection can also be contracted from contaminated foods including:

- milk and milk products
- eggs.

Impetigo is highly contagious. People with skin lesions or blisters should not handle food until the infection has cleared.

**Treatment for group A streptococcal infection**

A course of antibiotics is the standard treatment for group A streptococcal infection; the duration will depend on the site of infection. Antibiotics which may be prescribed include:

- penicillin
- a cephalosporin or macrolide antibiotic if you are allergic to penicillin
- antibiotic ointments for impetigo.

**Children with group A streptococcal infection**

If your child develops group A streptococcal infection, including scarlet fever or impetigo:

- keep them away from children’s settings such childcare centres or school until your child has received at least 24 hours of antibiotic treatment and they feel well
- ensure your child completes the entire course of antibiotics
- if your child has impetigo, the child can return to school after commencing antibiotic treatment. Make sure all exposed sores are covered with a watertight dressing.

**The infectious period for group A streptococcal infection**

If your streptococcal infection is not treated, you could remain infectious for between 10 and 21 days. An untreated infection with a pus-filled discharge can remain infectious for months.

It is important to complete any course of antibiotics you are prescribed.

**Where to get help**

- Your doctor
- The emergency department of your nearest hospital
- **NURSE-ON-CALL.** Tel. 1300 60 60 24 – for expert health information and advice (24 hours, 7 days)
- **Communicable Disease Prevention and Control.** Department of Health Victoria Tel. 1300 651 160
Streptococcal infection - group A