

FACTSHEET



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Invasive Group A Streptococcal Disease

Invasive group A streptococcus (iGAS) can cause a range of mild and serious illnesses in children. The bacterium responsible for causing this illness is known as *Streptococcus pyogenes* (known as Strep A).

Introduction

Strep A infection is spread from an infected person to another by droplets through:

- sneezing
- coughing
- kissing
- direct contact (touching the skin of a person with Strep A infection)

Some people carry Strep A bacteria in their throat or on their skin and have no symptoms, but they can infect others.

Children may experience Strep A infection of the throat (strep throat) or skin sores (impetigo). If recognised and treated early, severe infection and complications can be prevented.

However, if left untreated, a small number of children may develop rheumatic fever which can cause:

- painful and inflamed joints
- heart valve problems (rheumatic heart disease)

Strep A can cause severe or invasive disease (iGAS) by spreading to other parts of the body such as:

- blood stream (sepsis/bacteraemia)
- lungs (pneumonia)
- bones (osteomyelitis)
- joints (septic arthritis)
- heart (pericarditis)

It can also cause flesh-eating disease (necrotising fasciitis) or multi-organ failure (toxic shock syndrome) in a small number of children. The mortality rate of children with iGAS ranges from 2% to 8%, with long term disability affecting 3% to 8% of children.

Signs and symptoms

Signs and symptoms vary depending on which part of the body is infected. **You should take your child to the doctor as soon as you notice severe symptoms or mild symptoms getting worse.**

The signs and symptoms may include:

- fever
- chills and/or sweats
- red, warm, painful skin sores that spread quickly – these may have a crust or produce pus
- red, sunburn-like rash (scarlet fever rash)
- dizziness or light headedness
- headache and/or stiff neck
- sore throat
- shortness of breath and/or chest pain
- nausea, vomiting, abdominal pain
- fatigue (tiredness)
- muscle aches and tenderness

Diagnosis

A child infected with Strep A can become very ill within 12 to 24 hours.

To accurately identify Strep A, a doctor will need to examine the child and may take blood and other samples such as from the skin or throat. The samples are sent to the laboratory for testing and identification of the bacteria.

Treatments

Strep A infections are usually treated with antibiotics.

You will need to isolate your child until they complete their first day of treatment to prevent spreading the infection to others. In general, keeping sick children away from others until they are feeling better, can help reduce infections spreading in the community.

In severe infections the child will need to be admitted to hospital for care and monitoring. Parents/carers or other household contacts may also be advised to take antibiotics in this case.

Commonly asked questions

Who is at risk?

Those at higher risk of Step A infection or complications following infection are:

- Infants and young children especially infants under one year of age
- Newborns of mothers with invasive Strep A infection
- Children with recent trauma, burns or surgery
- Children with recent varicella zoster virus (chicken pox) infection
- Children with recent influenza infection
- Children who are immunocompromised (on steroids or chemotherapy)
- Aboriginal and/or Torres Strait Islander children
- Family members or household contacts of someone with invasive Strep A infection

How is Strep A infection prevented?

Strep A infection can be prevented by:

- frequently washing your hands with soap and water
- keeping wounds clean and covered until they heal

- getting medical advice and treatment if you or child become unwell and have been in contact with a person with Strep A infection in the last 30 days
- getting medical advice and treatment if you or your child has a sore throat or skin sores: especially important for Aboriginal or Torres Strait Islander persons
- keeping up to date with immunisations for chicken pox and influenza may help reduce the risk of Strep A infection

Is there a vaccine?

There is currently no vaccine to prevent Strep A infection. However, there is ongoing research to identify a vaccine.

Resources and more information

Invasive group A streptococcal (iGAS) disease – Communicable Diseases Factsheet. NSW Health.
<https://www.health.nsw.gov.au/Infectious/factsheets/Pages/Invasive-group-A-streptococcus.aspx>

Safety Alert 001/23. Clinician Alert – Invasive group A streptococcal disease.

<https://www.health.nsw.gov.au/sabs/Documents/2023-sa-001.pdf>

Invasive group A streptococcal disease – NSW Control Guidelines for Public Health Units. NSW Health
<https://www.health.nsw.gov.au/Infectious/controlguideline/Pages/invasive-group-a-strep.aspx>

Invasive group A streptococcal infections in children.
<https://www.uptodate.com.acs.hcn.com.au/contents/invasive-group-a-streptococcal-infections-in-children>

Murdoch children's research institute. Streptococcus A.
<https://www.mcri.edu.au/impact/a-z-child-adolescent-health/s/streptococcus-a>