

Strep Throat and Scarlet Fever

Strep throat is caused by infection with the bacteria *Streptococcus*. In addition to sore throat, swollen glands, and other symptoms, some children develop a rash. When this rash is present, the infection is called *scarlet fever*. If your child has a strep infection, he or she will need antibiotics to treat it and to prevent rheumatic fever, which can be serious.

What are strep throat and scarlet fever?

Most sore throats are caused by virus, but strep throat is caused by the bacteria Group A Streptococcus. Treatment of this infection with antibiotics may help your child feel better and prevent rheumatic fever.

Some children with strep throat or strep infections elsewhere may develop a rash. When that occurs, the infection is called scarlet fever. The rash comes from toxins released by the strep bacteria. The infection is not more severe just because the rash is there.

Examining your child and performing some simple tests will tell your doctor whether or not your child has scarlet fever.

What does it look like?

- The first symptom of strep throat is usually a painful sore throat. Throat pain often develops rapidly, compared with the more gradual sore throat caused by infection with a virus (for example, sore throat with a cold).
- The throat and tonsils (glands at the back of the throat) look very red and swollen. You may see pus on the tonsils. The tongue may look very red and the area around the lips may look pale.
- Cough and runny nose are not commonly present or are mild.
- Other symptoms may include fever, headache, stomach pain, and swollen neck glands.
- Usually within a day or two, children develop a fine red rash. The rash feels rough, like sandpaper. It is sometimes described as looking like “sunburn with goose bumps.”
- The rash may begin around the neck and then spread over the chest, back, and arms. It usually doesn’t appear on the face. The bright red fades temporarily when you press on it. It may be most severe in the skin folds, such as the elbow crease, armpits, and groin.
- The area around the lips may look pale and the tongue very red.

- After a few days, the rash begins to fade. The skin usually begins to peel, as it often does after a sunburn.

What are some possible complications of scarlet fever?

Strep infection has some potentially serious complications. With proper treatment, most of these can be prevented. Complications include:

- Strep infection may cause an *abscess* (localized area of pus) in the throat.
- *Rheumatic fever*: This disease develops a few weeks after the original strep infection. It is felt to be caused by our immune system. It can be serious and can cause fever, heart inflammation, arthritis, and other symptoms. Your child can be left with heart problems called rheumatic disease. Rheumatic fever is uncommon now and can be prevented by treating the strep infection properly with antibiotics.
- *Acute glomerulonephritis*: This condition can also occur after a strep infection. It is an inflammation of the kidneys caused by our body’s immune reaction to strep. The main symptom is blood-tinged urine (reddish in color). Though treating the strep infection does not prevent this disease, most children get completely better.

What puts your child at risk for strep throat?

Because strep infection is passed from person to person, the main risk factor is coming into contact with a person who has the strep bacteria. If anyone in your home or at your child’s day-care center or school has strep infection, your child may be at risk. However, just because your child develops strep throat doesn’t mean he or she will get scarlet fever.

Strep throat is uncommon in children under 2 years old. It becomes more common through early adolescence and less common during later adolescence and adulthood. Although your child may catch strep at any time of year, it occurs most commonly in winter and spring.

Can strep throat be prevented?

For most people, there is no practical way to prevent strep infection. The best way to protect your child is to have him or her avoid contact with people who have strep throat.

People who have had rheumatic fever may take antibiotics to prevent another episode of strep infection.

How are strep throat and scarlet fever diagnosed and treated?

- The doctor may be able to recognize scarlet fever just by examining your child and suspect a strep throat by the symptoms and exam.

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- The doctor will probably perform some simple tests to identify strep throat using a swab sample taken from the back of your child's throat.
- A rapid antigen detection test can quickly tell whether your child has strep throat. Results are available within a half-hour. If the results don't show strep infection, your child may still need another test called a culture. The culture test is highly accurate but takes a day or two for the results to be known.
- If the doctor thinks your child has strep infection, he or she will prescribe an antibiotic, such as penicillin or amoxicillin. If your child is allergic to penicillin, other antibiotics are available. *To prevent rheumatic fever, it is very important that your child take the full dose of antibiotics prescribed, even if he or she seems to be feeling better.*
- Pain relievers such as acetaminophen or ibuprofen may relieve fever and sore throat pain. For older children,

gargling with warm salt water may help the throat feel better. Anesthetic sprays and lozenges may also be helpful.

- Feeling sick and pain when swallowing will make it difficult for your child to eat and drink. Try feeding soft foods and give plenty of liquids for a few days. To prevent dehydration, make sure your child drinks enough liquids.



When should I call your office?

Call our office if:

- Your child's sore throat and other symptoms don't start to get better within 3 days after starting antibiotics.
- Your child's symptoms aren't completely better by 10 days.
- Your child's symptoms return after getting better. He or she may need further treatment, or an additional antibiotic.
- Your child has difficulty opening his or her mouth or is drooling.