

Human pathogen information sheet

What is scarlet fever?

Scarlet fever is a classic childhood disease. It is one of the most common bacterial infections in this age bracket. Scarlet fever bacteria, A-streptococcus, occur around the world and usually cause throat inflammation and a skin rash. The bacteria may produce toxins. After having had the disease, the patient will be protected from the respective toxin of the pathogen. Since the bacteria form different toxins, however, it is possible to have scarlet fever several times. Scarlet fever is highly contagious and therefore often occurs in larger numbers in community facilities such as nurseries or schools, specifically during the colder season between October and March.

How does scarlet fever spread?

Person-to-person

Every fifth to tenth person carries the scarlet fever pathogens without falling ill. Nevertheless, these persons can pass on the bacteria to others. The pathogens are usually located in the area of the throat. When speaking, coughing or sneezing, the pathogens will enter the air through tiny spittle droplets and adhere to the contact person's mucous membrane when inhaled.

Via contaminated objects

Extremely rarely, people will catch scarlet fever through shared objects such as cutlery or toys if the pathogens are adhering to them.

What symptoms do the patients show?

At first there usually is a headache, throat ache, problems swallowing, chills and quickly rising fever. Stomach ache and vomiting are possible as well. The palate and throat are red, the tonsils are inflamed and may have white plaque. The lymph nodes at the neck swell strongly.

After 1 to 2 days, a non-itching skin rash develops that spreads across the armpits, chest area and groin to the entire body. The palms and soles of the feet are not affected. The cheeks are strongly reddened and the skin around the mouth is pale. The rash will disappear again after 6 to 9 days. Some days later, the skin will flake off particularly on the palms and soles of the feet.

Typically, scarlet fever also comes with the "raspberry tongue": First, the tongue shows white plaque. After a few days, it reddens to a raspberry colour.

Possible complications are inflammation of the middle ear, the sinuses and the lungs. Acute rheumatic fever with inflammation of the large joints such as the knees, the heart muscle, pericardium, heart valves or inflammation of the kidneys is a rare but highly feared late consequence. This may cause lasting damage. Complications occur more frequently if scarlet fever is not treated with antibiotics or if the antibiotics treatment is discontinued early.

What's the incubation period – and how long are you contagious?

There are usually 1 to 3 days between infection and outbreak. If scarlet fever is treated with antibiotics, 24 hours after the first dose there is no risk of infection anymore. Without antibiotics, patients are contagious for up to 3 weeks after the first symptoms.

Who is most at risk?

Anyone can contract scarlet fever. It is most common among children who attend a day nursery or school.



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What to do in case of illness?

- ▶ Always have throat inflammation with fever and skin rash examined by a doctor.
- ▶ Scarlet fever is usually treated with antibiotics. This reduces the contagious period and reduces complications. Always observe the recommended time for taking them, even if your symptoms improve before that. If you discontinue therapy early, there may be relapses or late consequences.
- ▶ Stay in bed while contagious and limit contact to others where possible.
- ▶ Warm drinks and soft food such as mashes or soups make swallowing easier.
- ▶ Drink a lot, particularly if you have a fever. It is best to drink water, diluted juices or herbal teas.
- ▶ To not pass on the pathogens, keep a distance from others when coughing and sneezing or turn away from them. Do not cough and sneeze into your palm but into disposable tissues or, in an emergency, into your bent elbow. Dispose of tissues in a waste container with a lid at once.
- ▶ Important: Wash your hands regularly and thoroughly with water and soap!
- ▶ Children and teens with scarlet fever or where this has been suspected, must not attend community facilities such as schools or nurseries for some time. Parents must inform the facility of the child's illness.
- ▶ Persons working in community facilities, e.g. teachers or preschool teachers, must not work where they come into contact with children in their care if they have scarlet fever or are suspect of having it while they are contagious.
- ▶ The doctor or the relevant health authority will decide when they can start working or attending the community facility again. This is usually on the second day after receiving antibiotics, and otherwise after the end of the symptoms. A medical certificate is not required.

How can I protect myself?

- ▶ Avoid contact with patients who are still contagious.
- ▶ Wash your hands regularly and thoroughly with water and soap to avoid contact infection.
- ▶ Preventive treatment of contact persons with antibiotics usually is not necessary. It is only recommended for particularly endangered persons who have severe underlying diseases or are immune-compromised.
- ▶ There is no vaccination against scarlet fever.

Where can I find out more?

Your local health authority can provide you with further advice. You will find more information on the current situation and great experience in handling of diseases there.

More (specialist) information is also available online from the Robert Koch Institute (www.rki.de/scharlach).

For more information on how hygiene can guard against infection, please visit the Federal Centre for Health Education website (www.infektionsschutz.de).



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