

# RSV (RESPIRATORY SYNCYTIAL VIRUS)

## Information about pathogens in humans – good hygiene offers protection

### What is RSV?

The RSV (respiratory syncytial virus) is a virus that affects the respiratory tract. The symptoms of an infection are mostly similar to those of a common cold. RSV infections tend to occur more frequently in winter. Usually, by the end of the second year of life, all children have been infected with the virus. In the course of a life time, a person can become infected with RSV more than once.

### How is RSV transmitted?

#### *From person to person*

RSV is transmitted mainly via **droplet infection**. When sneezing or coughing, an infected person can eject tiny droplets containing viruses into the air. Another person can become infected if these virus-containing droplets are inhaled and reach the mucous membranes of the respiratory tract in the nose, mouth, and throat.

The RSV can also be spread from hand to hand or through shared objects and surfaces via a **smear infection**. Infection is possible if another person comes into contact with the virus-containing secretion and touches their eyes or nose with unwashed hands. In secretions from the respiratory tract, the RSV can survive on the hands for about 20 minutes and on paper tissues for about 45 minutes.

### What are the symptoms of the disease?

RSV infections can vary in severity. The symptoms may correspond to a mild infection of the upper respiratory tract. However, the disease can also be severe enough to require hospital treatment. In rare cases, fatal courses are possible.

In children, it usually starts with a runny nose and a loss of appetite. The throat can also become inflamed. This is followed by coughing and sneezing and often fever. In the further course, infections of the lower respiratory tract can develop with a mucus-containing cough. These include inflammation of the fine branches of the lower respiratory tract (bronchiolitis) and pneumonia. The inflammation and mucus can cause narrowing of the respiratory tract with difficult or rapid breathing and shortness of breath. In premature babies, interrupted breathing (apnoeas) may occur. A reduced oxygen content in the blood is noticeable by a bluish discoloration of the skin. In severe cases, ventilation may be necessary.

Especially in adults, an RSV infection might not cause any symptoms. However, adults can also experience symptoms of a respiratory infection. Adults with chronic heart and lung disease and weak immune systems or who are over the age of 65 can get pneumonia.

After overcoming the disease, an individual may experience a prolonged hypersensitivity of the bronchial tubes to environmental stimuli.

### When does the disease occur? And for how long is a person contagious?

The time between infection with the RSV and the onset of the disease is 2–8 days (5 days on average).

Infected persons can spread the virus as early as one day after infection and before the onset of symptoms.

The duration of contagiousness is usually 3–8 days. However, premature babies, newborns, and people with impaired immune systems can excrete the virus for several weeks and, in some cases, even for months.

### Who is particularly at risk?

The following have an increased risk of becoming severely ill with an RSV infection:

- ▶ Premature babies
- ▶ Newborns and infants (younger than six months)
- ▶ Children with pre-existing lung conditions
- ▶ Children with heart defects
- ▶ Adults older than 65 years
- ▶ People with pre-existing lung or heart conditions or with compromised immune systems

RSV infection can also exacerbate pre-existing asthma, chronic lung or heart disease, and severe neurological disease.

## What do I need to consider if I get the disease?

People with the disease should stay at home if possible and especially not visit community facilities such as kindergartens or playgroups. Above all, contact with particularly vulnerable persons should be avoided. Sick children should not be cared for by grandparents.

People with the disease should follow a few hygiene rules:

- ▶ Anyone who coughs or sneezes should turn away and use a disposable tissue or cover their nose and mouth with the crook of their arm.
- ▶ Hands should be washed regularly.
- ▶ Frequently used objects such as door handles and children's toys should be cleaned thoroughly.

There is no effective causal treatment for RSV infection. Only the symptoms can be treated. Antibiotics, which are directed against bacteria, do not help against viruses. It is important to drink plenty of fluids. In order to facilitate nasal breathing, careful cleaning of the nose, sprays (pay attention to the age indication), or saline drops can be helpful.

RSV infection can cause a rapid change in symptoms. If your child or you experience shortness of breath, reduced fluid intake, or worsening symptoms, seek medical attention. In children with pre-existing illnesses and premature babies, initial warning signs such as cough and fever should always be clarified by a doctor. If the skin on the chest pulls inwards ("retraction") when breathing, a doctor should be consulted as soon as possible.

Your doctor will recommend suitable measures or prescribe medication depending on your symptoms. If necessary, hospital treatment will be initiated.

## How can I protect my child and myself from RSV?

It is difficult to completely avoid RSV infections in everyday life. Practising good hygiene can help to reduce the risk of infection:

- ▶ Close contact with sick people should be avoided if possible. Only healthy people should take part in family celebrations.
- ▶ Wash your hands regularly and thoroughly, and help your child to do so.
- ▶ The eyes, nose, and mouth should not be touched with unwashed hands.

There is no preventive vaccination against RSV infections. In children who are at particularly high risk of a severe course of RSV infection, the precautionary administration of a passive vaccination can be considered during the RSV season. These are antibodies that can protect against severe symptoms.

## Where can I get more information?

For individual medical advice, please contact your doctor or a clinic near you. For further information and advice, please contact your [local health authority](#).

For further (specialist) information, please visit the website of the Robert Koch-Institut (RKI) at [www.rki.de/rsv](http://www.rki.de/rsv).

Further information on infection control can be found on the website of the Bundeszentrale für gesundheitliche Aufklärung (BZgA) at [www.infektionsschutz.de](http://www.infektionsschutz.de).



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