

# Respiratory Syncytial Virus

Also Known As: RSV

## What is RSV?



Respiratory syncytial virus (RSV) is a virus that causes infections of the lungs and respiratory tract. It's so common that most children have been infected with the virus by age 2. Respiratory syncytial (sin-SISH-ul) virus can also infect adults.

In adults and older, healthy children, the symptoms of respiratory syncytial virus are mild and typically mimic the common cold. Self-care measures are usually all that's needed to relieve any discomfort.

Infection with respiratory syncytial virus can be severe in some cases, especially in premature babies and infants with underlying health conditions. RSV can also become serious in older adults, adults with heart and lung diseases, or anyone with a very weak immune system (immunocompromised).

## How is it Spread?

People infected with RSV are usually contagious for 3 to 8 days. However, some infants and people with weakened immune systems can be contagious for as long as 4 weeks. RSV is often introduced into the home by school-aged children who are infected with RSV and have a mild upper respiratory tract infection, such as a cold. RSV can be rapidly transmitted to other members of the family, often infecting about 50% of other household members.

RSV can be spread when droplets containing the virus are sneezed or coughed into the air by an infected person. Such droplets can linger briefly in the air, and if someone inhales the particles or the particles contact their nose, mouth, or eye, they can become infected.

Infection can also result from direct and indirect contact with nasal or oral secretions from infected persons. Direct contact with the virus can occur, for example, by kissing the face of a child with RSV. Indirect contact can occur if the virus gets on an environmental surface, such as a doorknob, that is then touched by other people. Direct and indirect transmissions of virus usually occur when people touch an infectious secretion and then rub their eyes or nose. RSV can survive on hard surfaces such as tables and crib rails for many hours. RSV typically lives on soft surfaces such as tissues and hands for shorter amounts of time.

**Premature infants, children less than 2 years of age with congenital heart or chronic lung disease, and children with compromised (weakened) immune systems due to a medical condition or medical treatment are at highest risk for severe disease. Adults with compromised immune systems and those 65 and older are also at increased risk of severe disease.**

## Signs and Symptoms

Illness usually begins 4 to 6 days after exposure (range: 2 to 8 days) with a runny nose and decrease in appetite. Coughing, sneezing, and fever typically develop 1 to 3 days later. Wheezing may also occur. In very young infants, irritability, decreased activity, and breathing difficulties may be the only symptoms of infection. Most otherwise healthy infants infected with RSV do not require hospitalization. In most cases, including among those who need to be hospitalized, full recovery from illness occurs in about 1 to 2 weeks.

Visits to a healthcare provider for an RSV infection are very common. During such visits, the healthcare provider will assess the severity of disease to determine if the patient should be hospitalized. In the most severe cases of disease, infants may require supplemental oxygen, suctioning of mucus from the airways, or intubation (have breathing tubes inserted) with mechanical ventilation.

## Diagnosis

RSV is usually diagnosed from the appearance of typical symptoms. The use of specific laboratory tests is often limited to cases of severe illness and to special outbreak investigations.

## Treatment

For children with mild disease, no specific treatment is necessary other than the treatment of symptoms. People with severe disease may require oxygen therapy and respiratory medications for hospitalized people. For most people, treatment includes plenty of rest, fluids, and fever reducing medications. Children who are very ill should not be treated with aspirin for a fever. Aspirin use has been associated with Reye Syndrome when given during certain viral illnesses.

## Prevention

Frequent hand washing and wiping of hard surfaces with soap and water or disinfectant may help stop infection and spread of RSV. Also, persons with RSV illness should not share cups or eating utensils with others.

Ideally, persons with cold-like symptoms should not interact with high-risk children. If this is not possible, these persons should cover their mouth and nose when coughing or sneezing and then wash their hands before providing any care. They should also refrain from kissing high-risk children while they have cold-like symptoms. When possible, limiting the time that high-risk children spend in child-care centers or other potentially contagious settings may help prevent infection and spread of the virus during the RSV season.

A drug called palivizumab (say "pah-lih-VIH-zu-mahb") is available to prevent severe RSV illness in certain infants and children who are at high risk. The drug can help prevent development of serious RSV disease, but it cannot help cure or treat children already suffering from serious RSV disease and it cannot prevent infection with RSV. If your child is at high risk for severe RSV disease, talk to your healthcare provider to see if palivizumab can be used as a preventive measure. Researchers are working to develop RSV vaccines, but none is available yet.



***For more sources of information on this topic visit:***

ST. CLAIR COUNTY HEALTH DEPARTMENT [www.scchealth.co](http://www.scchealth.co)  
MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES [www.michigan.gov/mdhhs](http://www.michigan.gov/mdhhs)  
CENTERS FOR DISEASE CONTROL AND PREVENTION [www.cdc.gov](http://www.cdc.gov)  
THE MAYO CLINIC [www.mayoclinic.org](http://www.mayoclinic.org)