

## What Is Respiratory Syncytial Virus (RSV)?

Respiratory syncytial (sin-SI-shul) virus, or RSV, is a common respiratory virus that infects the lungs and breathing passages. It usually causes a mild cold-like illness (upper respiratory infection) that lasts 1 to 2 weeks. In some people, RSV infection moves down into the lungs causing acute bronchiolitis (an inflammation of the airways) or pneumonia. Very young infants are at higher risk of having a lung infection rather than just a cold. RSV can also cause serious respiratory illness in older adults.



RSV is the one of the most common causes of bronchiolitis and pneumonia in children under 1 year of age. It is a common reason for young infants to be hospitalized during the RSV season. Most children do not get a severe illness. The RSV season in the United States is typically from November to April. However, the timing of the RSV season has varied. It has been seen in the summer and its pattern can vary in some parts of the country.

### How is RSV infection spread?

RSV spreads easily from person to person. The infection gets into your body through your nose, mouth or eyes. When an infected person coughs or sneezes, virus-containing droplets get in the air. You can also get the infection if you get infected nose or mouth secretions on your hands and then rub your eyes or nose. RSV can survive on hard surfaces such as tables, doorknobs, toys, and crib rails for many hours.

### Who is at higher risk of severe RSV infection?

Not everyone gets a bad infection from RSV. However, RSV can lead to serious lung infection, breathing problems and hospitalization for some people who are at higher risk. These include:

- Premature infants born before 29 weeks of pregnancy (gestation).
- Infants and children who are less than 24 months of age and have bronchopulmonary dysplasia (BPD, a lung disease from extreme prematurity).
- Some children with congenital heart defects or some other chronic lung diseases are also at higher risk.
- Children and adults who have compromised (weakened) immune systems due to a medical condition or medical treatment.
- Adults aged 65 years and older.

### What are the symptoms of RSV infection?

Symptoms of RSV infection are similar to other respiratory infections.

Some common symptoms of RSV disease include:

- Runny nose
- Coughing
- Sneezing
- A fever (especially if it is greater than 100.4°F in infants under 3 months of age)

In very young infants, irritability, decreased activity, and breathing difficulty may be the only symptoms of infection.

Some signs and symptoms of severe RSV disease include:

- Wheezing
- Fast breathing
- A bluish color around the mouth or fingernails
- Spread-out nostrils (nasal flaring) and/or sucking or caving in of the chest (retractions) when trying to breathe
- Gasping for breath

Contact your healthcare provider right away if your baby or child:

- Has breathing difficulty
- Is irritable and cannot or will not take a bottle
- Is younger than 3 months of age and has a fever
- Shows signs of dehydration, such as a dry mouth, crying without tears, and urinating less often

### What can you do to prevent RSV infection?

Steps you can take to help reduce you and your child's risk of RSV and keeping it from spreading to others include:

- Wash your hands well and have others wash hands before holding or touching your baby.
- Avoid touching your eyes, nose and mouth.
- Clean surfaces that may be contaminated with virus such as doorknobs, toys, and table tops.
- Stay at least 6 feet from someone who is sneezing or coughing if possible.
- Avoid tobacco smoke or vaping exposure which can increase risk of infection.

People who have cold-like symptoms should:

- Cover their coughs and sneezes.
- Wash their hands frequently and correctly.
- Refrain from kissing others and stay away as much as possible from higher risk people.

### What else can be done for people at high risk of severe RSV infection?

When possible, limit the time that high-risk infants spend in child-care centers during the RSV season. Ask others to stay away when they have a cold or are ill.

At present, there is no approved vaccine to prevent RSV infection. Researchers are working on testing possible vaccines for babies and older adults.

Palivizumab (pah-lih-VIH-zu-mab, brand name Synagis™) is used in selected infants who are high risk and less than 2 years of age to prevent severe RSV illness. It contains specific antibodies that can help the body fight RSV. It is not used to treat an active RSV infection. Palivizumab is a shot given in a muscle. It is given monthly throughout the RSV season.

Ask your healthcare provider if your baby is a candidate for palivizumab. Find out when RSV season starts and ends in your area. If your high-risk baby is born during RSV season, he or she may get the first dose before leaving the hospital. Make sure you plan ahead for your high-risk baby's first shot as you may need to get insurance approval. Do not skip doses or your baby may not be protected.

### What can you do to treat RSV infection in a young child?

- There is no effective treatment used for RSV infection.
- Cold-like symptoms in an infant can be helped with gentle suctioning of the nose.
- Cold medications should not be given as they may cause side effects and are not effective in the young child.
- Hot-air vaporizers should be avoided because of the risk for scald burns, and cool-mist vaporizers may get contaminated with molds.
- Make sure your child drinks enough liquid to prevent dehydration.

### Healthcare Provider's Contact Number:

**Authors:** Marianna Sockrider MD DrPH, Julie Katkin MD

**Reviewers:** Kristin Van Hook MD, MPH, Hrishikesh S Kulkarni, MD, Thomas Ferkol MD

### Resources:

#### American Thoracic Society

- <http://www.thoracic.org/patients>  
—What is Bronchopulmonary Dysplasia (BPD)

#### Centers for Disease Control and Prevention:

- <https://www.cdc.gov/rsv/>

#### American Academy of Pediatrics—Healthy Children

- <https://www.healthychildren.org/English/health-issues/conditions/chest-lungs/Pages/Respiratory-Syncytial-Virus-RSV.aspx>
- <https://www.healthychildren.org/spanish/health-issues/conditions/chest-lungs/paginas/rsv-when-its-more-than-just-a-cold.aspx>

#### Kids Health from Nemours Foundation

- <http://kidshealth.org/parent/infections/lung/rsv.html>
- [http://kidshealth.org/parent/en\\_espanol/infecciones/rsv\\_esp.html](http://kidshealth.org/parent/en_espanol/infecciones/rsv_esp.html)

This information is a public service of the American Thoracic Society. The content is for educational purposes only. It should not be used as a substitute for the medical advice of one's healthcare provider.