What are the **symptoms** of RSV?

It is important to be **aware of the potential symptoms of RSV infection.** In very young infants with RSV, the only symptoms may be irritability, decreased activity and breathing difficulties.[1]

Additional RSV symptoms for adults and children may include:

Because many symptoms of RSV are similar to other respiratory infections, **testing for RSV is necessary for diagnosis.**[2]

How is RSV **managed**?

Besides a preventive injectable medicine available for premature and high-risk infants and children, there is **no preventive vaccine or broadly effective treatment currently available for RSV**; therefore, there is a critical need for new solutions to reduce the burden of RSV.

There are **several ways we can help prevent the spread of RSV** and other respiratory infections, including:[3]

- Cover your coughs and sneezes
- Frequent hand-washing
- Frequent cleaning of high-traffic surfaces e.g. doorknobs, children's toys
- Stay home when you are unwell

**In children with a lighter skin tone, skin around the mouth or nails may have bluish tint. In children with a darker skin tone, skin may have a gray or whitish tint.*

If you or a loved one are feeling unwell and showing any symptoms of RSV, please speak to your doctor.

[1] CDC. RSV in infants and young children. Available at: https://www.cdc.gov/rsv/high-risk/infants-young-children.html. Last accessed: October 2021.

[2] Respiratory syncytial virus (RSV). Available at: https://www.mayoclinic.org/diseases-conditions/respiratory-syncytial-virus/symptoms-causes/syc-20353098. Last accessed: October 2021.

[3] CDC. RSV Prevention. Available at: https://www.cdc.gov/rsv/about/prevention.html. Last accessed: October 2021.

[4] CDC. RSV Symptoms and Care. Available at: https://www.cdc.gov/rsv/about/symptoms.html. Last accessed: October 2021.

[5] CDC. RSV in Older Adults and Adults with Chronic Medical Conditions. Available at: https://www.cdc.gov/rsv/high-risk/older-adults.html. Last accessed: October 2021.

[6] Coultas JA, Smyth R, Openshaw PJ. Respiratory syncytial virus (RSV): a scourge from infancy to old age. Thorax. 2019;74:986-993.

[7] Hurley LP et al. Primary care physicians' perspectives on respiratory syncytial virus (RSV) disease in adults and a potential RSV vaccine for adults. Vaccine. 2019;37(4):565-570.

[8] Falsey AR et al. Respiratory syncytial virus infection in elderly and high-risk adults. N Engl J Med. 2005;352(17):1749-1759.

[9] National Institute of Allergy and Infectious Diseases. Respiratory syncytial virus (RSV). Available at: https://www.niaid.nih.gov/diseases-conditions/respiratory-syncytial-virus-rsv. Last accessed: October 2021.

[10] Protect Against Respiratory Syncytial Virus. Available at: https://www.cdc.gov/features/rsv/index.html. Last accessed: October 2021.

[11] Respiratory Infections. Available at: https://www.janssen.com/infectious-diseases-and-vaccines/respiratory-infections. Last accessed: October 2021.

[12] Hurley LP, Bridges CB, Harpaz R, et al. U.S. Physicians' Perspective of Adult Vaccine Delivery. Ann Intern Med. 2014;160(3):161

[13] Obando-Pacheco P et al. Respiratory Syncytial Virus Seasonality: A Global Overview. The Journal of Infectious Diseases. 2018:217(9);1356-1364.

[14] Increased Interseasonal Respiratory Syncytial Virus (RSV) Activity in Parts of the Southern United States. Available at: https://emergency.cdc.gov/han/2021/han00443.asp. Last accessed: October 2021.

[15] Foley DA, Yeoh DK, Minney-Smith CA, et al. The Interseasonal Resurgence of Respiratory Syncytial Virus in Australian Children Following the Reduction of Coronavirus Disease 2019-Related Public Health Measures. Clin Infect Dis. 2021 Feb 17:ciaa1906. doi: 10.1093/cid/ciaa1906. Epub ahead of print. PMID: 33594407; PMCID: PMC7929151.

[16] Virus Watch, Week Ending 30 May 2021. Government of Western Australia, Department of Health. Last accessed: October 2021.

[17] Weekly Respiratory Pathogens Surveillance Report, South Africa, Week 21, 2021. National Institute for Communicable Diseases, Division of the National Health Laboratory Service. Last accessed: October 2021.

[18] Paediatric respiratory diseases. Available at: https://www.erswhitebook.org/chapters/paediatric-respiratory-diseases/. Last accessed: October 2021.

[19] RESCEU Birth Cohort Study. Data on file.

[20] Hall CB, Weinberg GA, Iwane MK, et al. The Burden of Respiratory Syncytial Virus Infection in Young Children. N Engl J Med. 2009;360:588-598.

[21] RSV in Infants and Young Children. Available at: https://www.cdc.gov/rsv/high-risk/infants-young-children.html. Last accessed: October 2021.

[22] Shi T, McAllister DA, O'Brien KL, et al. Global, regional, and national disease burden estimates of acute lower respiratory infections due to respiratory syncytial virus in young children in 2015: a systematic review and modelling study. Lancet. 2017;390(10098):946-958.

[23] Jain S, Williams DJ, Arnold SR, et al. Community-Acquired Pneumonia Requiring Hospitalization among U.S. Children. N Engl J Med. 2015;372:835-845.

[24] Sigurs N, et al. Severe respiratory syncytial virus bronchiolitis in infancy and asthma and allergy at age 13. Am J Respir Crit Care Med. 2005;171(2):137-141.

[25] Learn about RSV in Infants and Young Children. Centers for Disease Control and Prevention. Available at: https://www.cdc.gov/rsv/high-risk/infants-young-children.html. Last accessed: October 2021.

[26] NHS website. Bronchiolitis. NHS. UK. Available at: https://www.nhs.uk/conditions/bronchiolitis/. Last accessed: October 2021.

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Jan 07, 2022

RSV

Respiratory Syncytial Virus

Janssen Infectious Diseases & Vaccines

What is the impact of RSV on **adults**?

Most people with RSV recover in one or two weeks. In some cases, however, RSV can cause serious complications.

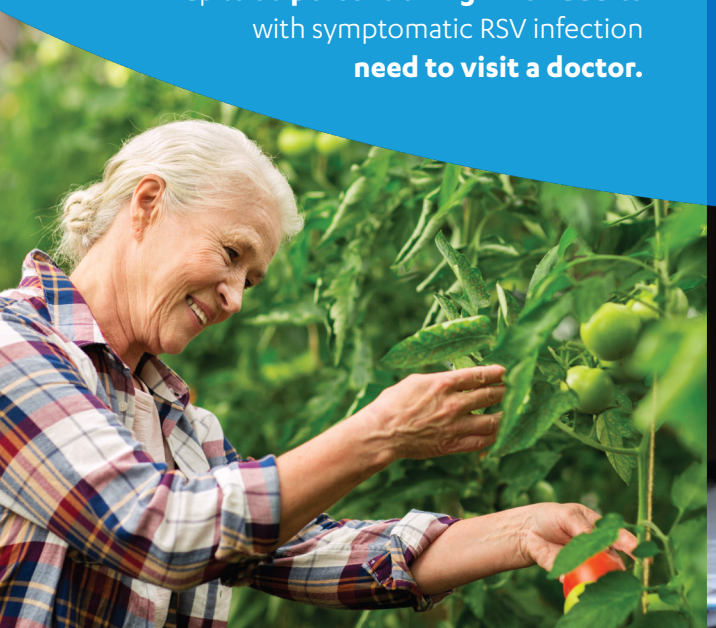
For older adults or those with underlying health conditions – such as immunocompromised adults and adults with chronic lung and heart disease – RSV can lead to serious respiratory infections, including pneumonia.[4,5,6]

RSV disproportionately impacts adults over 60 years and high-risk adults over 18 years, who are more likely to develop a lower respiratory tract infection (LRTI).

- In a typical year, between 3-7% of older adults (≥60 years of age) and 4-10% of high-risk adults (≥18 years of age) experience RSV.[7,8]

Severe RSV infection can also lead to life-threatening complications including pneumonia, cardiovascular complications and the exacerbation of underlying conditions (e.g., COPD, asthma, congestive heart failure), which are associated with significant mortality.

Because complications can be serious, up to **50 percent of high-risk adults** with symptomatic RSV infection **need to visit a doctor.**



What is **RSV**?

RSV is a highly contagious seasonal respiratory virus, which affects an estimated 64 million children and adults around the world in a typical year.[9] The virus is also **one of the most common causes of acute respiratory infections** in young children, older adults, and those with underlying health conditions.[10,11]

Many individuals who are infected with RSV may not be properly diagnosed because the often mild, cold-like symptoms of **RSV can be difficult to distinguish from the flu** or other respiratory infections, such as COVID-19.[12] It's possible that co-infection can occur. Diagnosis can help inform the appropriate path to seeking treatment.

How is RSV **transmitted**?

RSV is **spread through droplets** from a cough or sneeze, or by **touching a surface or object** that has the virus on it.

Typical seasonal epidemics occur from **September to May in the northern hemisphere**, and from **March to October in the southern hemisphere.**[13]

While **atypical, inter-seasonal epidemics** are possible, such as recent summer outbreaks across the Southern United States (June 2021), South Africa (early 2021) and Australia (late 2020) related to the COVID-19 pandemic.[14,15,16,17]

What is the impact of RSV on **children**?

In a typical year, an estimated **33 million children under the age of 5 are infected with RSV** worldwide. In fact, RSV is **one of the main reasons that babies are hospitalized before their first birthday.**[18]

Up to **60 percent of all children with RSV infections require medical assistance**, with up to 10 percent of these children admitted to the hospital.[19,20]

For children with certain risk factors – such as premature birth, age of fewer than six months, or age of fewer than two years with chronic lung disease or congenital heart disease[21] – RSV can lead to serious respiratory infections, including bronchitis, bronchiolitis and pneumonia.[6,22,23]

Severe RSV-associated bronchiolitis in childhood is also a risk factor for the development of asthma.[24]

Nearly all children have had **at least one RSV infection** by the age of 2.[25,26]