

The Burden of RSV

Impacting All Families

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Respiratory syncytial virus places a heavy burden on infants, young children, their families and the health care system. Also known as RSV, this virus can impact children and families for months, years or even their entire lives.

And it doesn't discriminate.

All families need to be aware and prepared to actively protect their children from RSV.

RSV is a highly contagious seasonal virus.

For some adults and older children, RSV may seem like a cold, with no major impact or lasting symptoms. But for infants and young children, especially those born prematurely or those with heart defects or compromised immune systems, RSV can take a heavy toll.¹

RSV IS NOT RARE. BY THE TIME MOST CHILDREN ARE TWO YEARS OLD, THEY HAVE HAD AN RSV INFECTION.²

And while some children experience only cold-like symptoms, others face more severe consequences. RSV and its harsh symptoms are common because the virus is easily transmitted. It is spread primarily by respiratory droplets from a cough or sneeze and through contact with a contaminated surface. Infants and young children, particularly those with underlying medical conditions, are at risk of severe disease from RSV infection.

There is no cure for RSV — and no established standard of care. Providers typically treat the symptoms and do their best to support the patient. Preventive tactics like handwashing and limiting exposure to others are also options.



IN THE UNITED STATES



Nearly **58,000 infants and young children** are hospitalized because of RSV each year.³



For children under age 5, RSV causes **500,000 emergency room visits** each year.⁴



RSV is the **most common cause of bronchiolitis and pneumonia** in children under age 1.



RSV leads to **100-500 deaths** among children younger than 5 years old each year.⁵



Infants under age 1 are **16 times more likely to be hospitalized** for RSV than for the flu.⁶

THE BURDEN OF RSV

RSV can cause serious symptoms with long-lasting complications for infants and young children. In addition to cold-like symptoms such as a runny nose or a cough, parents may notice their child wheezing and working harder to breathe.⁷ Infants and young children may become lethargic as they struggle to breathe and as their immune system tries and fails to fight the virus.

Babies in particular can suffer other serious symptoms that alarm parents. These symptoms may include decreased appetite, irritability and struggling to breathe. Infants with severe RSV may experience short, shallow and rapid breathing.

A telltale sign of RSV is when an infant's chest caves in between and under the ribs. Their nostrils may flare as they fight to breathe. In some cases, breathing problems may be so serious that their mouths, lips and fingernails turn blue. They could also experience occasional apnea, where the baby stops breathing for 20 seconds or more.

Symptoms may worsen as the virus moves lower into the lungs. RSV may cause inflammation of the airways, which can lead to pneumonia or bronchiolitis. A barking or wheezing cough is often the first sign that the virus has begun to inflame the lungs.



PREEMIES

RSV is a serious threat for premature babies.

Preemies are often born before their lungs and immune systems have fully developed. Premature infants born near the beginning of RSV season, traditionally October through March, face a heightened risk.

Preemies are left vulnerable to viruses and attacks on their respiratory system. Without preventive measures, these babies can suffer serious short and long-term consequences if they contract RSV.



OLDER INFANTS

Infants under 6 months are at a greater risk of a severe RSV infection.

For infants under age 1, RSV is the leading cause of hospitalization. Children in this age range are 16 times more likely to be hospitalized for RSV than for the flu.

Nearly 72% of infants hospitalized from RSV in their first year of life had no underlying or preexisting health conditions.



YOUNG CHILDREN

RSV impacts all children.

A 2020 study found that 35% of children hospitalized with acute respiratory illness were positive for RSV. Of those children, 87% were under 2 years old and 67% had no underlying conditions or premature birth.⁸

Every year, RSV causes more than 500,000 emergency room visits — and nearly 58,000 hospitalizations — for children under the age of 5.

LIFELONG CONSEQUENCES

RSV can be painful and terrifying for everyone involved. Families are left to watch as their child faces unrelenting symptoms and struggles to breathe. But even after a child recovers, the family may not have escaped the burden of RSV completely. Many times, families are left to face long-term complications and costs — both emotional and financial.

Contracting RSV at a young age can lead to other health complications.⁹ Infants who contract severe RSV after the age of 6 months have a higher chance of developing asthma and

other breathing disorders later in life.¹⁰ These complications often appear in later childhood and continue into adulthood. But these complications can also develop early. There is growing evidence that RSV in early childhood is associated with long-term wheezing and asthma and impaired overall lung function.

Subsequently, children who had RSV may face a diminished quality of life and place a heavy burden on families. They may also increase costs to the health care system.

CONTRACTING RSV AT A
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IMPACT ON FAMILY

RSV-related hospitalization is distressing for infants and children, as well as their caregivers and families. As parents watch their child struggle to breathe, siblings are often separated from their parents and are confused and afraid. The physical and mental-health effects may extend for months or years.¹¹

Parents and caregivers may be forced to make alternative child care arrangements for their other children, placing an increased burden on family and friends.

The financial toll can be devastating too. For underinsured or uninsured patients and their families, a hospital stay and follow-up treatment could lead them to sacrifice jobs, savings and financial security.

And the emotional impact of RSV on families can be long-lasting.



PREVENTION

To help prevent RSV, families with infants and young children should wash their hands frequently, avoid close contact with sick people, cover coughs and sneezes, and disinfect toys and surfaces regularly.¹²

During RSV season, families should consider taking their child out of a daycare setting or limiting visitors who come into their home. Limiting outings to the grocery store or large gatherings are other strategies to consider. While there is no vaccine for RSV, a preventive monoclonal antibody is available for some infants born preterm or with underlying health conditions. And new preventive monoclonal antibodies for the prevention of RSV in all infants are in development.

Ensuring timely and equitable access to these vaccine-like interventions will help prevent RSV and protect infants, young children and their families from the long-term burden of RSV.



CONCLUSION

For infants, young children and their families, RSV can be devastating. Preventing RSV saves lives, limits potential dangers of lifelong health complications and protects families from the multifaceted emotional and financial burden.

RSV impacts all families, no matter their demographic, geographic location or financial position. Prevention is key to protecting all infants and children from RSV.

REFERENCES

1. American Lung Association: RSV Symptoms and Diagnosis [Internet]. Chicago: American Lung Association; [updated 2021 Nov. 9; cited 2022 March 28]. <https://www.lung.org/lung-health-diseases/lung-disease-lookup/rsv/symptoms-diagnosis>
2. CDC: RSV in Infants and Young Children [Internet]. Atlanta: Centers for Disease Control; [updated 2020 Dec. 18; cited 2022 March 28]. <https://www.cdc.gov/rsv/high-risk/infants-young-children.html>
3. Ibid.
4. Hall, CB. et al. Respiratory Syncytial Virus-Associated Hospitalizations Among Children Less Than 24 Months of Age. *Pediatrics*, 132(2). doi: 10.1542/peds.2013-0303.
5. CDC: Increased Interseasonal Respiratory Syncytial Virus (RSV) Activity in Parts of the Southern United States [Internet]. Atlanta: Centers for Disease Control; [2021 Jun 10; cited 2022 March 28]. <https://emergency.cdc.gov/han/2021/han00443.asp>
6. Zhou H, et al. 54:1427–36. *Clin Infect Dis*. 2012.
7. American Lung Association: RSV Symptoms and Diagnosis [Internet]. Chicago: American Lung Association; [updated 2021 Nov. 9; cited 2022 March 28]. <https://www.cdc.gov/rsv/high-risk/infants-young-children.html#severe-rsv-infection>
8. *Pediatrics*. 2020 Jul;146(1): e20193611. doi: 10.1542/peds.2019-3611. Epub 2020 Jun 16. PubMed PMID: 32546583. <https://pubmed.ncbi.nlm.nih.gov/32546583/>
9. Fauroux B, Simões EAF, Checchia PA, Paes B, Figueras-Aloy J, Manzoni P, Bont L, Carbonell-Estrany X. The Burden and Long-term Respiratory Morbidity Associated with Respiratory Syncytial Virus Infection in Early Childhood. *Infect Dis Ther*. 2017 Jun;6(2):173-197. doi: 10.1007/s40121-017-0151-4. Epub 2017 Mar 29. PMID: 28357706; PMCID: PMC5446364. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5446364/>
10. *The Journal of Infectious Diseases*, Volume 220, Issue 4, 15 August 2019, Pages 550–556, <https://doi.org/10.1093/infdis/jiy671>.
11. *Pediatrics*. 2005 Jun;115(6):1536-46. doi: 10.1542/peds.2004-1149. <https://pubmed.ncbi.nlm.nih.gov/15930214/>
12. CDC: Respiratory Syncytial Virus Infection [Internet]. Atlanta: Centers for Disease Control; [2020 Dec. 18; cited 2022 March 28]. <https://www.cdc.gov/rsv/references.html#factsheet>

NCfIH National Coalition for Infant Health

Protecting Access for Premature Infants through Age Two

The National Coalition for Infant Health educates and advocates on behalf of premature infants from birth to age two. NCfIH envisions safe, healthy infants whose families can access the information, care and treatment their babies need.



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