



## Preventing RSV

By Ralph Morris, MD, MPH

### What is RSV?

RSV is “Respiratory Syncytial (*sin-SISH-uhl*) Virus,” a virus that affects the lungs and breathing passages. In healthy people, an RSV infection resembles a cold (colds are caused by *rhinoviruses*, another type of virus), but the very young and the very old<sup>1</sup> and those with weakened immune systems may develop more serious symptoms. Healthcare and child care workers are also at risk for RSV infections.

RSV affects millions of children each year. According to the U.S. [Centers for Disease Control and Prevention](#) (CDC), RSV is the most common cause of bronchiolitis (inflammation of the small airways in the lung) and pneumonia (lung infection) in children younger than one year of age in the United States. CDC notes that nearly all children will have an RSV infection by their second birthday.

Up to 40 percent of children will have signs or symptoms of bronchiolitis or pneumonia after their first exposure to RSV, and a small percentage of children will require hospitalization.

### When should I go to the doctor?

When symptoms become severe, it’s time to go to the doctor. RSV symptoms resemble other respiratory infection symptoms, including a runny nose and decreased appetite beginning about four to six days after exposure to the virus. Coughing, sneezing and fever commonly develop one to three days later. Wheezing may also develop. In very young infants, the only symptoms may be irritability, decreased activity, and breathing difficulty.



<sup>1</sup> Falsey AR and Walsh EE (2005). Respiratory Syncytial Virus infection in elderly adults. *Drugs Aging*, 22(7) 577-87 ([Abstract](#)).

Healthcare providers can assess the severity of RSV infection and determine if the patient requires hospitalization. Severe cases of infection may require supplemental oxygen, suctioning mucus from the airways or using a breathing tube. Some patients may be treated effectively with hyperbaric oxygen<sup>2</sup>.

### ***How can I prevent RSV?***

There is no vaccine to prevent RSV, and antibiotics are not effective unless a secondary bacterial infection occurs. People can be infected with RSV more than once, but symptoms may be milder in subsequent infections. The CDC poster at the beginning of this article outlines six strategies to help prevent RSV infection.

RSV is spread by direct or close contact with contaminated secretions, such as mucus. Keeping sick children home from day care is key to preventing the spread of contagious illnesses like RSV. Keep in mind that very young children and children with weakened immune systems can continue to spread the virus for one to four weeks.

The virus is easily transported from the hands, where researchers say it can live for over 30 minutes, to the eyes and nose. It also survives on surfaces for several hours.<sup>3</sup> That's why CDC recommends frequent hand washing, [covering coughs and sneezes](#), and keeping hands away from the face.

#### Disinfecting Surfaces Contaminated with RSV

According to researchers, RSV can be destroyed on frequently touched hard surfaces by first cleaning with detergent and water and then applying a one-to-ten dilution of regular (5.25%) bleach and water (e.g., one cup of bleach to nine cups of water).<sup>4</sup>

*For more information about RSV, please see <http://www.cdc.gov/rsv/index.html>.*

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<sup>2</sup> Hyperbaric oxygen treatment refers to administering oxygen at a higher level than atmospheric pressure.

<sup>3</sup> Eiland, L.S. (2009). Respiratory Syncytial Virus: Diagnosis, Treatment and Prevention, *J Pediatr Pharmacol Ther.* 2009 Apr-Jun; 14(2): 75–85, (online: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3461981/>)

<sup>4</sup> If using 8.25% bleach, make a one-to-16 dilution (e.g., one cup of bleach to approximately 16 cups of water).

#### Bronchiolitis and Asthma?

According to [KidsHealth](#), children who have had bronchiolitis may be more likely to develop asthma later in life, but more research is needed to understand what, if any, relationship exists between bronchiolitis and asthma.