



Respiratory Syncytial Virus (RSV)

What is respiratory syncytial virus?

- A virus that causes the common cold and other respiratory signs or symptoms, mostly in children younger than 2 years
- Most common in winter and early spring; one of the most common diseases of early childhood (younger than 4 years)

What are the signs or symptoms?

- Cold-like signs or symptoms (runny nose, congestion, cough) for most children.
- Very young infants also can exhibit
 - Irritability
 - Poor feeding
 - Lethargy
 - Apnea (ie, brief periods of no breathing)
 - Cyanosis (Skin or mucous membranes turn blue, usually when coughing with respiratory syncytial virus [RSV].)
- Respiratory problems include
 - Bronchiolitis (ie, wheezing from narrowed airways in the lungs)
 - Pneumonia
 - Wheezing and asthma attack in children who already have asthma
- Children with weakened immune systems, preterm birth, or heart or lung problems have greater difficulty when ill with this infection compared with otherwise healthy children. Very young infants (<6 months) have higher risk of hospitalization due to RSV.

What are the incubation and contagious periods?

- Incubation period: 2 to 8 days; 4 to 6 days is most common.
- Contagious period: The virus can be shed for 3 to 8 days (3–4 weeks in young infants, usually beginning a day or so before signs or symptoms appear).

How is it spread?

- Respiratory (droplet) route: Contact with large droplets that form when a child talks, coughs, or sneezes. These droplets can land on or be rubbed into the eyes, nose, or mouth. The droplets do not stay in the air; they usually travel no more than 3 feet and fall onto the ground.

- Contact with the respiratory secretions from or objects contaminated by children who carry RSV.
- The virus can live on surfaces for many hours and 30 minutes or more on hands.
- Before signs or symptoms appear, the infected person starts to shed virus that may infect others.

How do you control it?

- Use good hand-hygiene technique at all the times listed in Chapter 2.
- Prevent contact with respiratory secretions. Teach children and educators to cover their noses and mouths when sneezing or coughing with a disposable facial tissue, if possible, or with an upper sleeve or elbow if no facial tissue is available in time. Teach everyone to remove any mucus or debris on skin or other surfaces and perform hand hygiene right after using facial tissues or having contact with mucus to prevent the spread of disease by contaminated hands. Change or cover clothing with mucus on it.
- Dispose of facial tissues that contain nasal secretions after each use.
- Several infection control measures may be considered:
 - Make sure handwashing facilities or alcohol-based hand sanitizers are nearby to encourage hand hygiene (see Chapter 2), especially before and after any activity involving food or touching the mouth, nose, and eyes.
 - Sanitize commonly touched surfaces more frequently during the winter and early spring when outbreaks can be expected.

What are the roles of the educator and the family?

- Report the infection to the staff member designated by the early childhood education program or school for decision-making and action related to care of ill children. That person, in turn, alerts possibly exposed family and staff members to watch for symptoms.
- Practice control measures at home and educational settings.
- Promote breastfeeding, which helps protect infants from RSV.

Exclude from educational setting?

No, unless

- Child exhibits rapid or labored breathing or cyanotic (blue) episodes. (Immediately refer a child with these symptoms to a health professional.)
- The child is unable to participate and staff members determine they cannot care for the child without compromising their ability to care for the health and safety of the other children in the group.
- The child meets other exclusion criteria (see Conditions Requiring Temporary Exclusion in Chapter 4).

Readmit to educational setting?

Yes, when all the following criteria are met:

When exclusion criteria are resolved, the child is able to participate, and staff members determine they can care for the child without compromising their ability to care for the health and safety of the other children in the group

Comments

- Respiratory syncytial virus is a very common cause of hospitalization, especially in infants in the first 12 months after birth. The infection can be fatal, especially in high-risk groups (eg, weakened immune systems, preterm birth, heart abnormalities, lung disease).
- Almost all children are infected at least once with RSV by 2 years of age. Reinfection during life is common. Respiratory syncytial virus infection is usually milder in older children. It can be very severe in the elderly.
- Certain infants and young children at high risk (eg, extremely preterm birth, heart or chronic lung disease related to preterm birth) may benefit from a monthly injection of antibody to RSV throughout the RSV season.
- All children should be protected from exposure to tobacco smoke, and special efforts to avoid tobacco smoke (directly or indirectly [eg, clothes]) are warranted for children who are at risk for serious disease from RSV.
- Children with RSV may wheeze like children with asthma. However, inhaler medications are not effective for most children with RSV who do not also have asthma.
- Cough from RSV often lasts as long as 3 weeks.

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