

## DEFINITION

### Diagnostic Findings

- Wheezing: a high-pitched whistling sound produced during breathing out
- Rapid breathing with a rate over 40 breaths/minute
- Tight breathing (your child has to push the air out)
- Coughing, often with very sticky mucus
- Onset of lung symptoms often preceded by fever and a runny nose
- An average age of 6 months, always less than 2 years
- Symptoms similar to asthma

### Cause

The wheezing is caused by a narrowing of the smallest airways in the lung (bronchioles). This narrowing results from inflammation (swelling) caused by any of a number of viruses, usually the respiratory syncytial virus (RSV). RSV occurs in epidemics almost every winter. Whereas infants with RSV develop bronchiolitis, children over 2 years of age and adults just develop cold symptoms. This virus is found in nasal secretions of infected individuals. It is spread by sneezing or coughing at a range of less than 6 feet or by hand-to-nose or hand-to-eye contact. People do not develop permanent immunity to the virus.

### Expected Course

Wheezing and tight breathing (difficulty breathing out) become worse for 2 or 3 days and then begin to improve. Overall, the wheezing lasts approximately 7 days and the cough about 14 days. The most common complication of bronchiolitis is an ear infection, occurring in some 20% of infants. Bacterial pneumonia is an uncommon complication. Only 1% or 2% of children with bronchiolitis are hospitalized because they need oxygen or intravenous fluids. In the long run, approximately 30% of the children who develop bronchiolitis go on to develop asthma. Recurrences of wheezing (asthma) occur mainly in children who come from families where close relatives have asthma. Asthma is very treatable with current medications.

## HOME TREATMENT FOR BRONCHIOLITIS

**Medicines.** Some children with bronchiolitis respond to asthma medicines, others do not. If your child has been given medicines, continue the medicine until your child's wheezing is gone for 24 hours. In addition, your child can be given acetaminophen every 4 to 6 hours if the fever is over 102° F (39° C).

**Warm Fluids for Coughing Spasms.** Coughing spasms are often caused by sticky secretions in the back of the throat. Warm liquids usually relax the airway and loosen the secretions. Offer warm lemonade or apple juice. In addition, breathing warm moist air helps to loosen the sticky mucus that may be choking your child. You can provide warm mist by placing a warm wet washcloth loosely over your child's nose and mouth, or you can fill a humidifier with warm water and have your child breathe in the warm

mist it produces. Avoid steam vaporizers because they can cause burns.

**Humidity.** Dry air tends to make coughs worse. Use a humidifier in your child's bedroom. The new ultrasonic humidifiers not only have the advantage of quietness, but also kill molds and most bacteria that might be in the water.

**Suction of a Blocked Nose.** If the nose is blocked up, your child will not be able to drink from a bottle or nurse. Most stuffy noses are blocked by dry or sticky mucus. Suction alone cannot remove dry secretions. Warm tap water nose drops are better than any medicine you can buy for loosening up mucus. Place three drops of warm water in each nostril. After about 1 minute, use a soft rubber suction bulb to suck it out. You can repeat this procedure several times until your child's breathing through the nose becomes quiet and easy.

**Feedings.** Encourage your child to drink adequate fluids. Eating is often tiring, so offer your child formula or breast milk in smaller amounts at more frequent intervals. If your child vomits during a coughing spasm, feed the child again.

**No Smoking.** Tobacco smoke aggravates coughing. The incidence of wheezing increases greatly in children who have an RSV infection *and* are exposed to passive smoking. Don't let anyone smoke around your child. In fact, try not to let anybody smoke inside your home.



## CALL OUR OFFICE

### IMMEDIATELY if

- Breathing becomes labored or difficult.
- The wheezing becomes severe (tight).
- Breathing becomes faster than 60 breaths/minute (when your child is not crying).
- The retractions (tugging in between the ribs) become worse.
- Your child stops breathing or passes out.
- The lips become bluish.
- Your child starts acting very sick.

### WITHIN 24 HOURS if

- Your child is unable to sleep because of the wheezing.
- Your child is not drinking enough fluids.
- There is any suggestion of an earache.
- A nasal discharge becomes yellow for more than 24 hours.
- Any fever (over 100° F [37.8° C]) lasts more than 72 hours.
- You feel your child is getting worse.

### DURING REGULAR HOURS if

- The cough lasts more than 3 weeks.
- You have other questions or concerns.