

## BRONCHIOLITIS

During breathing, air travels first through the nose or mouth, then through the voicebox (larynx), the windpipe (trachea), the bronchi, the bronchioles, and finally into the lungs. These airways become progressively smaller as the lung is approached. The bronchioles are the smallest of the airways. Children that develop bronchiolitis have a viral infection of these small airways. The virus often also infects the upper respiratory system producing the common cold symptoms: runny nose, congestion, fever, and cough. What distinguishes bronchiolitis from the common cold is the inflammation in the bronchioles, which causes wheezing.

Wheezing is a musical noise made during expiration (breathing out). It is caused by a narrowing of the bronchioles. This narrowing is caused by bronchial tube muscle spasm, swelling of the lining of the bronchiole, and excess mucous production in the bronchiole. This is very similar to the problem in older children that have asthma.

Bronchiolitis is common in the wintertime and usually affects children less than two years old. It is most often caused by a virus called RSV (respiratory syncytial virus), but can occasionally be caused by influenza or other "cold" viruses. It is a mystery why some children infected with the virus have only a common head cold while others develop the wheezing of bronchiolitis. One theory is that these children have allergic tendencies and are demonstrating an "allergic reaction" to the virus. This may explain why infants who develop bronchiolitis often have problems with asthma in later life.

### **Treatment:**

Similar to other viral infections, there is no simple "cure" for bronchiolitis. The child's own immune system will produce antibodies to kill the virus. Bronchiolitis usually lasts from two to three weeks.

**Diet:** Allow her to eat as normally as possible. If she has never been allergic to milk in the past, there is no need to restrict it now: it does **not** "make mucous". It's not uncommon for children to lose their appetite when they have bronchiolitis. This is not worrisome as long as she still drinks plenty of fluids.

**Medications:** Antibiotics are not helpful, as they have no effect on viruses. Decongestants may help relieve the nasal symptoms, but will not help the cough or wheezing, nor will they help her to recover any sooner. Acetaminophen (e.g. Tylenol) may be given to reduce fever if present. Depending on the your child's age and severity of symptoms, your physician may decide to prescribe an asthma medication in hopes of relieving bronchial muscle spasm.

**Humidity:** The extra work of breathing caused by wheezing can cause dryness of the respiratory

tract, which can make the mucous thicker. It's important to keep the humidity high near an infant with bronchiolitis. This is most easily done with a cool mist vaporizer running next to the child.

**Other:** Clear the baby's nasal passageways with a bulb syringe before feeding, before naps or bedtime, and anytime that she seems to have trouble breathing through her nose.

### **Prognosis:**

The vast majority of infants with bronchiolitis can be cared for at home. However, occasionally she may become so short of breath that hospitalization is necessary to administer extra oxygen and intravenous fluids. You should call to have your infant seen by the doctor if:

- 1) She is less than 3 months old and develops a fever over 102 degrees.
- 2) There is sucking in of the abdomen or the muscles between the ribs (retractions) with breathing.
- 3) Fingernails or lips become dusky or bluish.
- 4) She is too out of breath to take fluids.
- 5) She urinates less than three times per day.

