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BRONCHIOLITIS

From: KidsHealth.org

Bronchiolitis is a common illness of the respiratory tract caused by an infection that affects the tiny airways, called the bronchioles, which lead to the lungs. As these airways become inflamed, they swell and fill with mucus, which can make breathing difficult.

Bronchiolitis:

- most often affects infants and young children because their small airways can become blocked more easily than those of older kids or adults
- typically occurs during the first 2 years of life, with peak occurrence at about 3 to 6 months of age
- is more common in males, children who have not been breastfed, and those who live in crowded conditions
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Childcare attendance and exposure to cigarette smoke also can increase the likelihood that an infant will develop bronchiolitis. Although it's often a mild illness, some infants are at risk for a more severe disease that requires hospitalization. Conditions that increase the risk of severe bronchiolitis include prematurity, prior chronic heart or lung disease, and a weakened immune system due to illness or medications.

Kids who have had bronchiolitis may be more likely to develop asthma later in life, but it's unclear whether the illness causes or triggers asthma, or whether children who eventually develop asthma were simply more prone to developing bronchiolitis as infants. Studies are being done to clarify the relationship between bronchiolitis and the later development of asthma.

Bronchiolitis is usually caused by a viral infection, most commonly respiratory syncytial virus (RSV). RSV infections are responsible for more than half of all cases of bronchiolitis and are most widespread in the winter and early spring. Other viruses associated with bronchiolitis include rhinovirus, influenza (flu), and human metapneumovirus.

Signs and Symptoms

The first symptoms of bronchiolitis are usually the same as those of a common cold:

- stuffiness
- runny nose
- mild cough
- mild fever
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These symptoms last a day or two and are followed by worsening of the cough and wheezing (high-pitched whistling noises when exhaling).
Sometimes more severe respiratory difficulties gradually develop; signs include:

- rapid, shallow breathing
- a rapid heartbeat
- retractions — when the areas below the ribs, between the ribs, and in the neck sink in as a child inhales
- flaring of the nostrils
- irritability, with difficulty sleeping and signs of fatigue or lethargy
- vomiting after coughing
- poor appetite or not feeding well

Sometimes these symptoms can lead to dehydration. Less commonly, babies (especially those born prematurely) may have episodes where they briefly stop breathing (called apnea) before developing other symptoms.

In severe cases, symptoms may worsen quickly. A child with severe bronchiolitis may get fatigued from the work of breathing and have poor air movement in and out of the lungs due to the clogging of the small airways. The skin can turn blue (called cyanosis), which is especially noticeable in the lips and fingernails.

Contagiousness

The infections that cause bronchiolitis are contagious. The germs can spread in tiny drops of fluid from an infected person's nose and mouth, which may become airborne via sneezes, coughs, or laughs, and also can end up on things the person has touched, such as used tissues or toys.

Infants in childcare centers have a higher risk of contracting an infection that may lead to bronchiolitis because they're in close contact with lots of other young children.

Prevention

The best way to prevent the spread of viruses that can cause bronchiolitis is frequent hand washing. It may help to keep infants away from others who have

colds or coughs. Babies who are exposed to cigarette smoke are more likely to develop severe bronchiolitis compared with those from smoke-free homes. So it's important to protect children from secondhand smoke.

There's no bronchiolitis vaccine available yet, but a medication can be given to lessen the severity of the disease. It's recommended only for infants at high risk of severe disease, such as those born very prematurely or those with chronic lung or heart disease. The medication, which contains antibodies to RSV, is given as an injection monthly during peak RSV season.

Incubation Period

The incubation period (the time between infection and the onset of symptoms) ranges from several days to a week, depending on the infection causing the bronchiolitis.

Duration

Cases of bronchiolitis usually last about 12 days, but kids with severe cases can cough for weeks. The illness generally reaches its peak on the second or third day after coughing begins, causing breathing difficulty before gradually resolving.

Treatment

Fortunately, most cases of bronchiolitis are mild and require no specific professional treatment. Antibiotics aren't useful because bronchiolitis is caused by a viral infection, and antibiotics are only effective against bacterial infections. Medication may sometimes be given to help open a child's airways.

A doctor should evaluate infants who have trouble breathing, are dehydrated, or appear fatigued. Those who are moderately or severely ill may need to be hospitalized, watched closely, and given fluids and humidified oxygen. Rarely, in very severe cases, some babies are placed on respirators to help them breathe until they start to get better.

The best treatment for most kids is time to recover and plenty of fluids. Making sure a child drinks enough fluids can be tricky, though, because infants with bronchiolitis may not feel like drinking. They should be offered fluids in small amounts at more frequent intervals than usual.

Indoor air, especially during winter, can dry out airways and make the mucus stickier. Some parents use a cool-mist vaporizer or humidifier in the child's room to help loosen mucus in the airway and relieve cough and congestion. If you use one, clean it daily with household bleach to prevent mold build-up. Avoid hot-water and steam humidifiers, which can be hazardous and can cause scalding.

To clear nasal congestion, try a bulb syringe and saline (saltwater) nose drops. This can be especially helpful just before feeding and sleeping. Sometimes, keeping a child in a slightly upright position may help ease labored breathing.

Acetaminophen can be given to reduce fever and make your child more comfortable. Be sure to follow the appropriate dosage information based on your child's weight.

When to Call the Doctor

Call your doctor if your child:

- is breathing quickly, especially if this is accompanied by retractions or wheezing
- might be dehydrated due to vomiting or a poor appetite
- is sleepier than usual
- has a high fever
- has a worsening cough
- appears fatigued or lethargic
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Seek immediate help if you feel your child is having difficulty breathing and the cough, retractions, or wheezing are getting worse, or if his or her lips or fingernails appear blue.

Bronchiolitis
Rev.: 6/12/15