

Viral Wheezing Is Not Asthma

by Doug Puder, MD

Many respiratory viruses can make infants and young children wheeze. Of these, *RSV (Respiratory Syncytial Virus)*, is the most common cause of viral wheezing. Our airway is like a tree: We breathe through the trachea (like a tree trunk) which divides into bronchial tubes leading to each lung (like big branches). The bronchial tubes divide into smaller and smaller units (branches) until the lung is reached. The very smallest branches are called the "bronchioles" so *RSV*, causes an illness we call "*bronchiolitis*".

These infected bronchioles are inflamed and swollen. Airflow through them causes a wheeze and some level of trouble breathing. All of our asthma treatments have been tried and studied many times but fail to treat "*bronchiolitis*". We are not opposed to a trial of albuterol for this infection, but don't expect much from it!

Saline nosedrops and nasal suctioning can give infants some relief. Make sure no-one smokes in the home! Antibiotics are not helpful unless complications develop. Other cough medicines do not help and can be dangerous. A few of the sickest children with *RSV* will be hospitalized for oxygen and monitoring. Most infants just need time and the wheezing will resolve. With good supportive care most infants recover completely in one to two weeks.

Will My Child Get Asthma Afterwards?

Most children who get *RSV* are not at higher risk for asthma, although those who have an asthmatic tendency may struggle more with *RSV*. A strong family history of asthma in parents or siblings increases the risk of asthma later on, as does the presence of eczema. If your child has several illnesses with wheezing, especially beyond age one, we may diagnose asthma. Wheezing without fever or viral illness is more suggestive of asthma.

So How Is Asthma Different?

Asthma is caused by inflammation in the larger bronchial branches (not just the bronchioles). There is muscle in these tubes which narrow from *bronchospasm*. It causes shortness of breath, wheezing, and cough.

When Should I Give Albuterol for Asthma?

Albuterol is a fast acting *bronchodilator*. So it stimulates the bronchial tubes to open by relaxing the muscle wrapping around them. It is not a controller of asthma. It should only be used to relieve wheezing or asthmatic shortness of breath. When your child seems fine, don't use it. It can be used every four hours for wheezing if needed.

What if my child uses albuterol more than twice a week?

If your child needs albuterol more than twice a week for shortness of breath or wheezing, call us. This can be a sign that your child's asthma is not well controlled. It tells us that your child may need a controller medication as well. That doesn't mean you should stop using albuterol, but we need to start additional anti-inflammatory medication.

