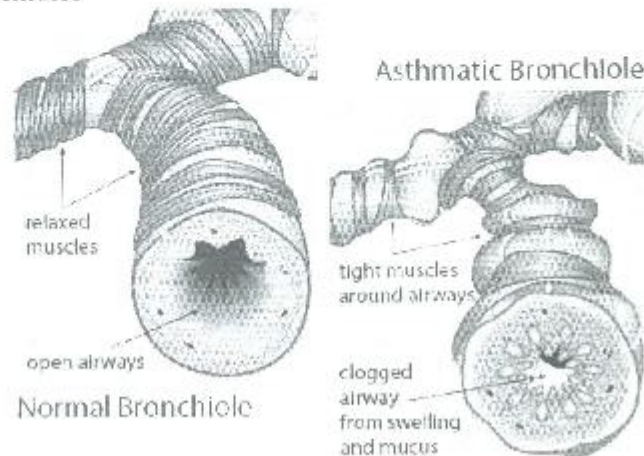


Asthma Medications: What they are, how they work, and when to give them

First, it is important to understand what is happening when your child is having an asthma exacerbation. There are two changes that are occurring in your child's lungs which are important to know about.

1. Constriction/narrowing of bronchioles (air passageways in the lungs)
2. Inflammation of bronchioles



The combination of these two changes make it difficult for your child to breath air in and out, and causes us to hear wheezing in their lungs on expiration.

Medications

1. **Bronchodilators:** These help to open the airways by decreasing the constriction (i.e. dilate the bronchioles). This is your child's **rescue** medication. It is your go to medication when you think your child has started wheezing, or when you think they are having an asthma attack. Typically we will tell you give these medications every 3-6 hours during an exacerbation.

- i. Common brand names: Albuterol, Proventil, Proair, Ventolin, Xopenex

2. **Inhaled Steroids:** These help to decrease the inflammation and swelling in your child's bronchioles. This is more of a long term controller medication that we will use to help **prevent** your child from wheezing and having exacerbations, and should be continued during exacerbations as adjunctive therapy to their bronchodilator. This is a medication which we will only instruct you to use if your child has frequent exacerbations. Typically we will tell you to give these medications twice a day. It is important to understand that inhaled steroids work only **locally** on your child's airways and are **not systemic**. We would prefer your child to use this medication all season over having frequent usage of bronchodilators or even one usage of oral steroids.

- i. Common brand names: Pulmicort, Budesonide, Qvar, Flovent

3. **Oral Steroids:** These also help to decrease inflammation and swelling in your child's bronchioles, but more rapidly. These are only used during severe asthma exacerbations when your child is in respiratory distress. We will instruct you when it is appropriate to use this medication. This steroid works systemically, and therefore should only be used when necessary and when instructed to do so by a medical professional.

- i. Common brand names: Orapred, Prednisolone

Remember, when using inhalers, your child always needs to use a spacer!