

Pediatric Asthma

For Parents and Caregivers

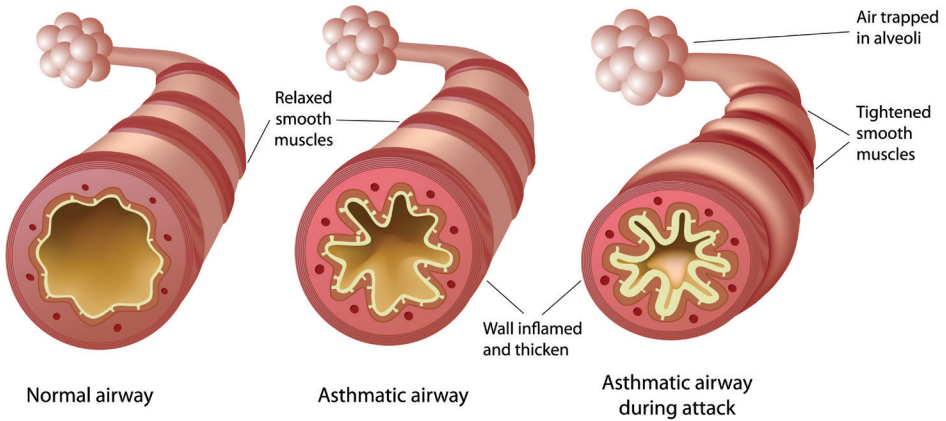


Asthma affects thousands of children each year. Poorly controlled asthma may impair a child's ability to attend school, affect his or her academic performance, and cause parents to miss work to care for an ill child. The SuperKids Asthma Initiative, funded by Valley Health and Winchester Medical Foundation and developed by a team of physicians, nurses, respiratory therapists, pharmacists and other healthcare professionals, provides education and support to children with asthma and their families. The goal of the SuperKids Asthma Initiative is to help children achieve their full potential despite having asthma.

Visit www.valleyhealthlink.com/superkids for more information about the SuperKids Asthma Initiative and other community resources for children with asthma.

The asthma educational content in this guide was created by the WakeMed Children's Asthma Program.

Pediatric Asthma



What is asthma?

Asthma is a very common, chronic (long-term) disease of your lungs and airways. The lungs of someone with asthma can easily get inflamed (swollen) and narrowed (tight). Fortunately, your child can have a normal life with few or no symptoms when his/her asthma is under control. However, if asthma is not controlled (this could be for different reasons) your child could have an asthma attack (also called an exacerbation or flare). An asthma flare occurs when the lungs are not getting enough air, leading to tightness in the chest, coughing or trouble breathing.

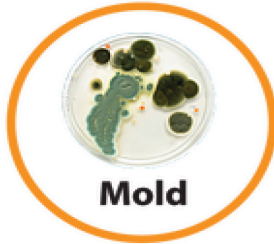
What causes an asthma flare?

There are a couple of reasons why your child could be having an asthma flare.

One of the reasons could be because your child is not taking his/her asthma medication as instructed by your doctor. Your child may not be taking the right dose (how many puffs/pills), is not taking it as many times as he/she should (twice a day every day), or the technique being used is not correct and the medicine is not being delivered into his/her lungs properly.

The second possibility of why your child is having an asthma flare is due to exposure to triggers. Each person with asthma has different triggers that affect their breathing and makes their lungs inflamed and narrowed. It depends on what your child has been exposed to and what his/her sensitivities and allergies are. These triggers can be found outside or inside your child's home and school.

Here are some examples of asthma triggers:



What are the signs and symptoms that I need to be looking for to know that my child is starting to have an asthma flare?

There are different warning signs that will tell you when your child is starting to have trouble breathing; these signs can be hard to notice at times. To help you understand them we are breaking them into two groups for you: early signs (yellow zone) and late signs (red zone). Follow the asthma action plan you will receive at the time of discharge to determine what to do. When in doubt, call your doctor immediately.



Early warning signs:

- Coughing
- Wheezing, or noisy breathing
- Chest tightness
- Less active than normal
- Itch or tickle in throat
- Itchy, watery and runny eyes from allergies
- Waking up at night with a cough, wheeze, or trouble breathing
- Drops in the average peak flow meter numbers

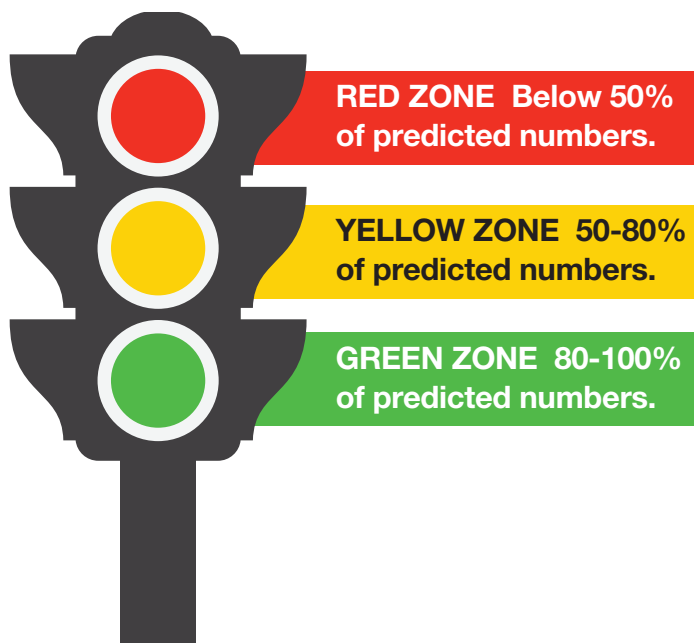
Late warning signs:

- For infants: head bobbing up and down with each breath
- Trouble breathing while lying flat
- Increased work of breathing (nostrils moving fast, abdomen, ribs, and/or neck area pulling in deeply when taking breaths)
- Trouble talking in complete sentences
- Trouble walking normal distances
- Becoming anxious or scared
- Rescue inhaler does not help
- Using rescue inhaler more often than every 4 hours
- Peak flow numbers in the red zone

What is a peak flow meter and how does it help to control my child's asthma?

If your child is at least 5 years old, we will be using a small device to help us interpret how his/her lungs are working; this tool is called a peak flow meter. If your child is younger than 5 years of age or can't do the appropriate technique when using the peak flow meter, we will use a physical examination to determine how your child is doing. A peak flow meter measures how fast air moves out of the lungs during one quick, hard, outward breath. This is a very useful tool to determine how your child's lungs are doing. We will show you what the normal numbers (green zone) are for your child and what

is considered his/her yellow (early warning signs) and red zones (late warning signs). These different zones will require different actions that will be part of your asthma action plan to take home. Please let us know if something does not make sense or if the peak flow zones and numbers are confusing. We want to make sure you feel comfortable with all the medicines and do not have any questions before you leave the hospital.



Why is my child taking more than one medication for asthma?

Even though all the medications we are giving your child are to control his/her asthma, each medication has a very different job. This is why it is so important to understand when each medicine should be taken.

Please let us know if something does not make sense or if the medication instructions are confusing. We want to make sure you feel comfortable with all of the medicines and that you do not have any questions before you leave the hospital.

Maintenance or controller

medications: These medicines help reduce and control the chronic inflammation in your child's lungs. These medicines work slowly and your child might not feel an improvement with his/her breathing right after taking them. You and your child will be able to see the improvement after taking the medicine as prescribed for a few days or weeks. Your child should have fewer asthma symptoms compared to what you were seeing before. Please remember: This improvement will not happen overnight or after just one dose of the medicine. The key to success is to take it every day (whether your child is having any asthma symptoms or not).

Examples of controller medications:

QVAR, Pulmicort, Flovent, Singulair, Advair, Symbicort.



Rescue or bronchodilator

medications: Another type of medication that your child will use is a bronchodilator or rescue inhaler. You are probably already familiar with this inhaler since it is the one we have been giving your child during this hospital stay. This inhaler works by relaxing the muscles around the airways when they become tight or constricted (when your child is having shortness of breath, coughing, wheezing, and feels tightness of the chest). This inhaler works very fast and it gives a quick relief of symptoms when used. However, this inhaler does not help us with the inflammation of the lungs and the relief effects do not last very long. This is why your child has to take the medication so often when he/she is having an asthma flare. It's important to understand that a rescue or bronchodilator inhaler alone may not be enough to control your child's asthma;

it only provides temporary relief of symptoms. This inhaler is to be used only when your child is actively having any asthma symptoms or prior to certain activities such as exercise.

Example of rescue medications:
Albuterol, ProAir, Ventolin, Proventil.



Allergy medications: These medications are used to control allergy symptoms that may lead to asthma flares. Just like the controller or maintenance medications, these medications should still be given even if your child is healthy and symptom-free.

Example of allergy medications:
Zyrtec, Claritin, Flonase, Nasonex.



Why is it important to use a spacer when using my child's inhalers?

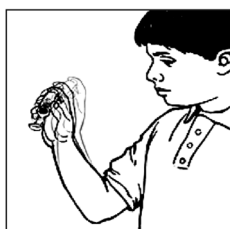
A spacer is a plastic chamber that is used to deliver your child's inhaler medicine. Using an inhaler correctly without a spacer is almost impossible, especially for children. When the inhaler is used without a spacer, most of the medicine is likely to hit just the back of the throat instead of being delivered to the lungs. Using the inhaler with a spacer makes the treatment easier and more effective. The spacer holds the medicine until the child is ready to breathe in; it also helps the medicine get down into the lungs, not just the back of the throat. We will go over the proper technique on how to use the inhaler with a spacer. You and your child will be able to practice and make sure you are comfortable on how to use it before going home.

Know How to Use Your Asthma Inhaler

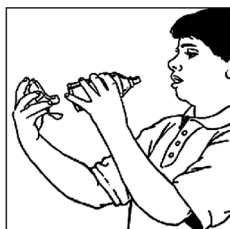
Using a metered dose inhaler with a spacer



1. Take the cap off the inhaler and make sure the mouthpiece and spray hole are clean.



2. Shake the inhaler 10 to 15 times.



3. Put the inhaler mouthpiece into the end of the spacer.



4. Inhale a deep breath and breathe out all the way.



5. Hold the inhaler and spacer between your index finger and thumb.



6. Put the mouthpiece of the spacer in your mouth and above your tongue.



7. Close your lips around the spacer.



8. Tilt your head back slightly toward the ceiling. Press the top of the inhaler to spray one dose of medicine. Slowly breathe in all the air you can and hold for 5 to 10 seconds.



9. Open your mouth...



10. ...and breathe out slowly.



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