**WHAT IS ASTHMA?**

Asthma is a chronic disease that inflames the airways in your child's lungs. This means the airways are swollen and are very sensitive to many different things in the air. The swelling is always there, even when your child feels good. The swelling can be controlled with medicine and by staying away from things that irritate your child's airways. In addition to being swollen, the airways sometimes spasm and narrow (get smaller).

This is called a flare-up or asthma attack.

The basic cause of asthma is not known. There are many theories being researched at this time by doctors and scientists. They do know that it can run in families.

Asthma can be very serious. Breathing problems that start out mild can turn deadly.

Asthma flare-ups or serious attacks can happen if the swelling is not treated. Taking medicines to control the swelling can prevent an asthma flare-up and should be taken everyday. Follow the Asthma Action Plan that your healthcare provider gives you.

**ASTHMA FLARE-UP**

During a flare-up or asthma attack, your child may have the following symptoms:

- Difficulty or noisy breathing
- Wheezing
- Coughing
- Shortness of breath
- Tightness in the chest
- Fatigue

It is important to treat symptoms when you first notice them. This helps to prevent the symptoms from worsening and causing a severe asthma attack.

During an asthma flare-up:

- Follow your Asthma Action Plan
- Take your rescue medicine as directed by your doctor
- Relax. Stay calm and try to breathe slowly and deeply

Go to the emergency room or call 911 if you notice any of the following danger signs:

- Lips and fingernails turn gray or blue
- Rescue medicine is not helping
- Nostrils in the nose open wide when breathing
- Ribs and neck muscles show when breathing
- Hard to talk or walk

**WHAT CAUSES A FLARE-UP?**

Things that cause asthma flare-ups are called triggers. There are many different types and vary from child to child.
CAN ASTHMA BE CURED?
There is no cure for Asthma, but it can be treated and controlled. Your child can become free of asthma symptoms all or most of the time with proper management. It is important to remember that even when your child feels fine, they still have the disease and it can flare up at any time.

As your child grows older, the asthma may change. It could get better or worse, requiring more or less medicines. That is why it is important to see a doctor on a regular basis for the management of our child’s asthma.

HOW IS ASTHMA CONTROLLED?
Work with your child’s doctor or asthma educator to set goals to keep asthma under control.
- Talk with your child’s doctor or asthma educator about any questions or concerns you have.
- Take medicines as prescribed by your child’s doctor.
- Recognize the onset of asthma symptoms. Do not ignore them!
- Follow your Asthma Action Plan.
- Keep your child away from triggers that lead to an asthma attack.
- See your child’s doctor at least every 6 months.

ASTHMA TRIGGERS
It will take some time to learn what triggers your child’s flare-ups. It is important to work with your health care professional to help identify your child’s triggers.

Common asthma triggers are:
- Molds and pollens
- Dust
- Pets-Dander or flakes from the skin, hair or feathers of pets
- Cigarette and wood smoke
- Upper respiratory infections such as cold and flu
- Scented products such as hairspray, perfume, scented candles, incense, air and carpet fresheners
- Strong odors or fumes from fresh paint, cleaning products, laundry products, cooking and automobile fumes
- Food sensitivities such as shrimp and peanuts
- Some medications such as aspirin and beta-blockers
- Stress, anxiety, fear and depression
- Changes in the weather or temperature
- Exercise
- Cockroaches
<table>
<thead>
<tr>
<th>AVOIDING TRIGGERS</th>
<th>Colds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Know your child's triggers and avoid them.</td>
<td>Remind your child to wash his or her hands frequently</td>
</tr>
<tr>
<td><strong>Mold</strong></td>
<td>• Make sure your child eats well and gets plenty of sleep</td>
</tr>
<tr>
<td>• Avoid mold found in wet leaves, damp basements and bathrooms</td>
<td>• Keep your child away from people with colds or the flu</td>
</tr>
<tr>
<td>• Clean moldy surfaces with bleach and water</td>
<td>• Be sure your child gets a yearly flu shot</td>
</tr>
<tr>
<td>• Use a dehumidifier/clean it regularly as directed by manufacturer.</td>
<td><strong>Chemicals</strong></td>
</tr>
<tr>
<td><strong>Pollen</strong></td>
<td>• Avoid perfume, talcum powder, hair spray and scented cleaning products</td>
</tr>
<tr>
<td>• Keep windows closed and use air conditioning at home and in the car when pollen levels are high</td>
<td><strong>Food/Medicines</strong></td>
</tr>
<tr>
<td>• Take your allergy medicine every day</td>
<td>• Avoid foods and medications that your child is sensitive to</td>
</tr>
<tr>
<td>• Bathe after playing outside</td>
<td><strong>Stress</strong></td>
</tr>
<tr>
<td><strong>Dust and Dust Mites</strong></td>
<td>• Try to stay calm and breathe slowly</td>
</tr>
<tr>
<td>• Use allergen-proof covers on mattresses and pillows</td>
<td>• Focus on things that keep you calm or happy</td>
</tr>
<tr>
<td>• Wash bedding every week in very hot water</td>
<td><strong>Weather</strong></td>
</tr>
<tr>
<td>• Remove items that collect dust from your child's bedroom</td>
<td>• On cold days, cover your nose and mouth with a scarf</td>
</tr>
<tr>
<td>• Vacuum carpets often</td>
<td>• Keep child inside when it is very hot and humid or air quality is poor</td>
</tr>
<tr>
<td>• Replace air conditioner and heater filters every 1-3 months</td>
<td><strong>Exercise</strong></td>
</tr>
<tr>
<td><strong>Pets</strong></td>
<td>• Take medication before exercise if prescribed by your doctor</td>
</tr>
<tr>
<td>• Keep pets outside</td>
<td>• Warm up by exercising slowly at first</td>
</tr>
<tr>
<td>• If pets must come inside, Keep them off the furniture and out of your child's bedroom</td>
<td>• Limit exercise when ill</td>
</tr>
<tr>
<td>• Wash pets weekly</td>
<td><strong>Cockroaches</strong></td>
</tr>
<tr>
<td><strong>Smoking</strong></td>
<td>• Exterminate the entire building</td>
</tr>
<tr>
<td>• Do not smoke or let anyone else smoke in your home or car</td>
<td>• Don't keep food in your bedroom</td>
</tr>
<tr>
<td>• Do not use wood burning stoves or fireplaces and avoid campfires</td>
<td>• Keep food and garbage sealed</td>
</tr>
</tbody>
</table>
### ASTHMA MEDICATIONS

There are two types of medicines for treating asthma. They are called rescue medicines and controller medicines.

#### RESCUE MEDICINES

Rescue medicines are taken at the FIRST sign of asthma symptoms, such as wheezing, coughing, chest tightness or shortness of breath. They work quickly to relax the muscles that tighten around the airways. This will help your child to breathe easier right away. Everyone with asthma needs a rescue medicine and should be kept with them at all times.

Common names of rescue medicines:
- Albuterol
- Proventil
- ProAir
- Ventolin
- Xopenex
- Maxair

Rescue medicines may be an inhaler or a liquid that is given with a nebulizer.

Systemic Corticosteroids are used for severe attacks. This is usually taken as a pill or syrup for short periods of time to help stop the attack.

Common names for systemic corticosteroids are:
- Prednisone
- Prednisolone
- Methylprednisone

#### CONTROLLER MEDICINES

Most people with asthma also need one or more controller medicines. Controller medicines are used everyday to help keep asthma under control. These medicines reduce the swelling and mucus in the lungs to prevent or reduce symptoms of asthma.

Common names of controller medicines:
- Flovent
- Pulmicort
- Qvar
- Asmanex
- Singular
- Advair
- Symbicort

Controller medicines may be an inhaler, a liquid that is given with a nebulizer or a pill. The most common controller medicine is called a corticosteroid.

### Side Effects of Medicines

Although asthma medicines can help our child feel better and stay well, it is important to know that all medicines have some risks of unwanted side-effects. When used at recommended doses, asthma medicines have very few side-effects.

You can help reduce the risk of side-effects by using a spacer device to deliver the medicines. Brushing your child's teeth or rinsing your child's mouth and spitting after using an inhaler or nebulizer can also help.

If you have any questions about your child's medicines, how it works, how they are taken, or potential side-effects, ask your health care provider or pharmacist.
### BEFORE GIVING MEDICINE

- Read the medication label carefully and make sure you are giving your child the right dose. It is easy to confuse the different inhalers.

- Give the exact dose of medicine that your child's doctor ordered.

- Stay with your child while they are taking their medicines to ensure they are taking the right amount of medication.

- Make sure you know the name and dosage of the medicines and how often your child takes it.

### MEDICATION DELIVERY DEVICES

There are different ways to administer asthma medicines. Some medicine are in pill or syrup form.

Asthma medicines that are inhaled come in various delivery methods. This includes:

- Metered dose inhaler (MDI)
- Dry powder inhaler
- Liquid that is given with a nebulizer

If your child is using a nebulizer, the medicine will be a liquid in a plastic vial or bottle. You will give one vial per dose in the nebulizer chamber.

The most common devices used for inhaled medicines are the metered dose inhaler (MDI). Your doctor may recommend your child use a spacer to deliver the inhaled medicines.

### WHAT IS A SPACER?

A spacer is a device that attaches to your child's inhaler. This helps to get more of the medicine into your child's lungs and can help to reduce side-effects.

There are different types of spacers available. The most common spacers have a mouthpiece or a mask attached to a holding chamber.
HOW TO USE A MOUTHPIECE SPACER

1. Remove the cap of the inhaler and attach it to the spacer.
2. Shake the inhaler and spacer at least 4-5 times.
3. Exhale slowly to empty your lungs.
4. Put the spacer in your mouth and seal your lips around the mouthpiece. Press down on the inhaler and spray the medicine ONCE, and then breathe in slowly and deeply through your mouth.
5. Hold your breath and count to 10. This helps the medicine get deeper into your lungs.
6. Exhale
7. Wait 1 minute before your next puff. Repeat steps 2-6 if your doctor has prescribed 2 puffs.

Clean your child’s spacer with warm soapy dishwater, rinse well and let it air dry once a week. Follow the directions on the package to clean and store the inhaler.

HOW TO USE A MASK SPACER

If your child is under the age of 6, a mask spacer should be used.

1. Remove the cap of the inhaler and attach it to the spacer.
2. Shake the inhaler and spacer at least 4-5 times.
3. Place the mask spacer snugly over your child’s nose and mouth.
4. Press down on the inhaler and spray the medicine ONCE, and then have your child breathe in and out slowly and deeply 6 times.
5. Remove the mask and wait 1 minute before your next puff. Repeat steps 2-5 if your doctor has prescribed 2 puffs.

Always remember to take the recommended doses your doctor has prescribed for your child.

Don’t forget to brush your child’s teeth or have them rinse and spit after using a controller medicine.