Asthma is a chronic airway disease. You cannot cure asthma, but you can control it. Treatment can improve asthma symptoms.

Asthma changes the lung airways in 3 ways:

1. Lining of the airways swell
2. Muscles around the airways tighten
3. Lungs make extra mucus.

These 3 changes cause the airway space to become very small and narrow.
SYMPTOMS

Asthma symptoms are different for each person. Not all people with asthma wheeze. Coughing may be the only symptom. Asthma frequently begins with mild symptoms. It is important to recognize and treat even these mild symptoms so they do not get worse.

The main symptoms of asthma are:

- Shortness of breath
- Wheezing
- Tightness in chest
- Frequent coughing

My Mild Symptoms:

My Main Symptoms:

TRIGGERS

Many things cause asthma symptoms. Everyone has different asthma triggers. Some people can have one or many triggers. Common asthma triggers include:

- Allergies
- Weather change
- Strong odors and Fumes
- Exercise or Active Playing
- Infections
- Dust Mites
- Cockroaches
- Smoke
**Allergies**

**Source**
- Foods such as nuts, eggs, fish, dairy products, food preservatives, and food dyes
- Pollens from flowers, trees, grasses, hay, ragweed
- Mold spores often found in damp areas of your home, schools, or fitness centers
- Dander from animals such as rabbits, cats, dogs, hamsters, horses, birds

**Precaution**
1. Be aware of ingredients in foods
2. Know the pollen counts
3. Avoid animals you are sensitive to.
4. Wash your hands after touching animals.
5. Use bleach to clean areas stained by mold.
   - **Note:** You must treat some allergies with allergy medicines. Please talk to your doctor.

**Weather change**

**Source**
- Ozone alert days
- High humidity
- Cold air

**Precaution**
1. On orange and red ozone days, limit outdoor activities, esp. in the afternoon.
2. Close windows and use air conditioning when needed.
3. Cold, dry air may cause the airways to tighten.

<table>
<thead>
<tr>
<th>GOOD DAY</th>
<th>Moderate Day</th>
<th>Reaching Unhealthy</th>
<th>OZONE ALERT Unhealthy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloudy to somewhat sunny or rainy</td>
<td>Partly cloudy to sunny skies</td>
<td>Sunny skies</td>
<td>Hazy, hot and humid</td>
</tr>
<tr>
<td>Temperatures from the mid 70's to low 80's</td>
<td>Temperatures from the upper 70's to mid 80's</td>
<td>Temperatures from the high 80's to 90's</td>
<td>Temperatures from 90's Up!</td>
</tr>
<tr>
<td>Windy weather</td>
<td>Light to moderate wind</td>
<td>Little wind</td>
<td>Little to no wind</td>
</tr>
</tbody>
</table>

AN OZONE ALERT DAY!!!
Strong Odors and Fumes

Source
● Spray deodorants, perfumes, hair sprays, talcum powder, scented cosmetics.
● Sprays from furniture polish, starch, cleaners, room deodorizers.
● Vapors from cleaning solvents, paint, paint thinner, liquid chlorine bleach.

Precaution
1. Make sure you have good air circulation or avoid these products.
2. When painting or spraying for bugs, let your house air out 8 to 12 hours before returning home.

Exercise or Active Playing

Source
Children with asthma can exercise and play just like the other kids.

Precaution
Always begin exercises with warm-ups and follow with cool-downs. Talk with your doctor about taking reliever medicine before active play or exercise.

Infections

Source
● Colds, flu, RSV, and other respiratory infections.

Precaution
1. Frequent hand washing
2. Avoiding others who are sick as much as possible
3. Receiving a flu shot every year can lessen the chances of getting sick with that illness.

Wash Your Hands
**Dust Mites**

**Source**
Dust mites are tiny bugs you cannot see. They live in the house. You find them in pillows, bedding, stuffed animals, dirty air filters, carpet.

**Precaution**
1. Use allergy control coverings on bed pillows and mattress.
2. Wash sheets weekly in hot water.
3. Only keep a few stuffed animals in your child’s room. Sometimes it is best to keep all stuffed animals out of the bedroom.
4. Place stuffed animals in freezer for 5 hours, once a week. This kills dust mites.
5. Change air conditioner filters as directed.
7. Vacuum, if possible, when your child is away.
8. Dust with a damp cloth.
9. Clean under beds and furniture.

**Cockroaches**

**Source**
Dried cockroach fecal material, saliva, and body casings become airborne and can trigger asthma.

**Precaution**
1. Keep all food out of your child’s room.
2. Keep food and garbage in covered containers.
3. Use bug spray while child is away.

**Smoke**

**Source**
Cigarette smoke, wood burning smoke, industrial smoke, leaf burning smoke.

**Precaution**
Do not allow smoking in the home, car, or around the child. If you must smoke, do it outside. Wear an extra blouse, shirt, or old bathrobe over your clothes while smoking outside and remove it before you enter the house. This helps keep the smoke and smell off of your clothes, also wash your hands.
GOALS OF ASTHMA THERAPY

The goal of asthma therapy is to take control of your asthma. When you have good control of asthma:

- You do not miss school.
- You can play in any activity or sport.
- You have few or no urgent care, emergency room, or hospital visits.
- Everyone at home sleeps all night without waking up.
- You have little or no side effects from your medicine.
- You know what triggers your asthma, you recognize the symptoms, and you know what to do.
- You do not have to use your reliever inhaler more than 3 times a week.

How can we control asthma episodes?

To control asthma episodes you need a written Asthma Action Plan (Home Management Plan of Care) from your doctor. It includes the following:

- What medicine to take and when.
- What to do in an emergency.
- Emergency contacts and phone numbers.

What medicines do we use to treat asthma?

There are 2 main kinds of medicines to treat asthma.

1. Reliever Medicines
2. Controller Medicines
RELIEVER MEDICINES

Bronchodilator medicines:

- Relax muscles that tightened around the airways.
- Give quick relief during an asthma episode
- Are short-lasting.

Some common reliever medicines are Albuterol, Xopenex, and Combivent.

CONTROLLER MEDICINES

Anti-inflammatory (steroidal and non-steroidal) medicines:

- Reduce swelling in the airways
- Reduce mucus production
- Are long-lasting
- You take them every day

Some common controller medicines are Flovent, Pulmicort, and Singulair. Advair, Symbicort, and Dulera relieve muscle tightness and control airway swelling and mucus.

You use either an inhaler and spacer device or a nebulizer to breathe in most asthma medicines. Inhaled medicines can increase the effectiveness of the medicine and reduce possible side effects.
Peak Flow Monitoring

Some doctors order peak flow meters for their patients. A peak flow meter measures how much air you can quickly blow out of your lungs. After measuring the highest number possible on the meter (your personal best), check your peak flow rates daily. Your personal best measurement tells us if your peak flow rates are remaining stable or if they are dropping. This may help with asthma management.

Managing Asthma Episodes

- Recognize asthma symptoms: coughing, wheezing, shortness of breath, tightness in chest, stomach or chest pain.
- Stop all physical activity.
- Get away from trigger, if possible.
- Keep calm and sitting in an upright/comfortable position.
- Take your medicine according to the action plan.
- Look for improvement of symptoms.

Managing Emergency Asthma Episodes

Begin emergency asthma action plan if you have any of the following:

- Sinking area around your neck or ribs with each breath
- Hunching over is the only way you can breathe
- Walking or talking becomes difficult.
- Lips or fingernails turn gray or blue.
- Wheezing, coughing, or shortness of breath that does not improve, or gets worse, even after your medicine has had time to work. Most inhaled bronchodilator medicines help you breathe easier within 5 to 10 minutes.
- Peak flow monitoring is 50% less than your personal best.

Give Reliever Medicines And Get Medical Help Immediately.
How to use your inhaler with a spacer

**Important:** Before taking medicine, please follow instructions (included with inhaler) on how to prime your inhaler.

1. To take medicine, remove cap on inhaler.
2. Shake inhaler for 5 seconds. Put inhaler mouthpiece into the spacer.
3. Breathe out. Seal your lips around the spacer mouthpiece.
4. Spray one puff from inhaler into the spacer.
5. Breathe in slowly and deeply through mouth. If spacer whistles, you are breathing in too fast.
6. Hold breath for 5 to 10 seconds, and then breathe out.
7. Repeat steps 2 to 6 as instructed by your doctor. Wait one minute between puffs.

If using a spacer with a mask, follow same instructions. Place mask over nose and mouth with a good seal. Breathe in and out 6 to 7 times.

**NOTES:**

__________________________________________________________________________________________
__________________________________________________________________________________________
__________________________________________________________________________________________
# Home Management Plan of Care

**Asthma**  
**Reactive Airway Disease**

**Date:** __________  
**Doctor:** __________  
**Doctor Phone #** __________

## Avoid these Triggers

### I Feel Good!
- Breathing is good
- No cough or wheeze
- Can work and play
- Sleep well at night

### Take Controller Medicines EVERYDAY to prevent symptoms

<table>
<thead>
<tr>
<th>Controller Medicine</th>
<th>How much?</th>
<th>How often?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Remember to rinse your mouth after taking these medicines*

### I Do Not Feel Well
- Some problems breathing
- Coughing and wheezing
- Problems working or playing
- Wake up at night coughing

### Take these Quick-Relief medicines AND keep taking your Controller Medicines

<table>
<thead>
<tr>
<th>Quick-Relief Medicines</th>
<th>How much?</th>
<th>How Often?</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

Call your doctor if you have any of the following:
- You need to take 3 extra treatments
- You have to take a treatment 2 hours after your last one
- The treatments are not helping

### I Feel Awful
- Lots of problems breathing
- Breathing is hard and fast
- Trouble talking or walking
- Cannot work or play
- Constant coughing
- Lips and nails pale or blue

### Take these medicines and call your doctor or go to the closest Emergency Room

<table>
<thead>
<tr>
<th>Quick-Relief Medicine</th>
<th>How much?</th>
<th>How Often?</th>
</tr>
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<tbody>
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<td></td>
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</tbody>
</table>

Call 911 if you need immediate help!

*Your follow up appointment is very important - see Nursing Discharge Summary for appointment information.*

**Signature of RN / RT** __________  
**Date:** __________  
**Time:** __________

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**Cook Children's**  
801 Seventh Avenue  
Fort Worth, Texas 76104-2796

HOME MANAGEMENT PLAN OF CARE

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Family Copy
GREAT RESOURCES FOR INFORMATION ON ASTHMA:

The American Lung Association
www.lungusa.org
1-800-LUNG-USA
(1-800-586-4872)

National Asthma Education and Prevention Program
NHLBI Information Center
www.nhlbi.nih.gov
1-301-592-8573

The Asthma and Allergy Foundation of America
www.aafa.org
1-800-7-ASTHMA
(1-800-727-8462)

Allergy & Asthma Network
Mothers of Asthmatics
www.aanma.org
1-800-878-4403

NOTES: