Asthma

The Goal is Control!
Co-founded in 1987 by singer/songwriter Paul Simon and pediatrician/child advocate Irwin Redlener, MD, the Children’s Health Fund (CHF) is committed to providing health care to the nation’s most medically underserved children through the development of innovative pediatric programs and the promotion of guaranteed access to high quality health care. To date, the programs in CHF’s National Network have completed more than a million health care visits to at risk children and families in rural and urban areas.

**Childhood Asthma Initiative**

In December of 1997, the Children’s Health Fund (CHF) launched the Childhood Asthma Initiative (CAI). The goal of CAI is to empower families to successfully manage childhood asthma. The program’s original target populations were homeless families served by the New York Children’s Health Project (NYCHP) and medically underserved housed community residents utilizing the South Bronx Health Center for Children and Families (SBHCCF). Both NYCHP and SBHCCF are flagship programs of CHF and comprise the Division of Community Pediatrics at the Children’s Hospital at Montefiore in New York. Through the dissemination of this asthma guide, CAI now reaches thousands of families across the country.

Leadership Support for the Childhood Asthma Initiative is provided by Schering-Plough Foundation

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**To request the Family Asthma Guide, please contact:**

Children’s Health Fund  
212-535-9400  
www.childrenshealthfund.org
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Look for this symbol in this guide for tips on **what YOU can do** to help control your asthma and reach your goals.
But I have asthma…
Can I do that?

Yes you can!

Play basketball
Do karate
Have the lead role in a play
Play the clarinet
Did you know?
There are even Olympic athletes with asthma!

People with asthma do all of these things. With good asthma control, you can too. Different people need different plans. Work with your doctor or nurse practitioner to make a plan that is right for you. Don’t let asthma hold you back!

What do you like to do?

- Go to camp
- Play outside with my friends
- Play at the park
- Be on the track team
The Goal is Control!

This guide will help you and your family understand your asthma better. Learn **what YOU can do** to control your asthma.

**Asthma control means:**
- ✔ You can play and exercise without problems
- ✔ You can sleep well through the night
- ✔ No missed school because of asthma
- ✔ No hospital stays
- ✔ Few or no emergency room visits
- ✔ Few or no side effects from medicine

What are **YOUR** goals for asthma control?

1

2

3
What is Asthma?

Asthma is a disease of the lungs. It makes the small airway tubes get narrow so it is hard for air to get in and out.

When your airways are too narrow you get asthma symptoms and it is hard to breathe.

Healthy Lung
Open airways = Easy to breathe

Lung with Asthma
Narrow airways = Hard to breathe

- Mucus
- Irritation and swelling
- Tight muscles
WHAT IS ASTHMA?

Asthma is a lung disease that makes it hard to breathe.

Asthma is a disease with symptoms that come and go. Some people get fewer symptoms as they get older. You may not have symptoms for a long time but they can come back at any time. Be ready to act quickly.

Some people with asthma only have symptoms when they get a cold or exercise. Other people have symptoms every day. Some people are worse at certain times of the year.

Asthma can't be cured, but you CAN work with your doctor or nurse practitioner to have fewer symptoms. Learn what to do to take control!

Healthy Airway

Airway with Asthma

2 things happen when you have asthma:

1. Muscles tighten around airways
2. Irritation, swelling and mucus block airways

Asthma can be controlled. You can learn to manage your asthma to keep your lungs healthier.
**ASTHMA SYMPTOMS**

**What does asthma feel like?**

Asthma is not the same for everyone. You may have some or all of these symptoms with your asthma.

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cough</td>
<td>With asthma you may cough a lot, even when you don’t have a cold. The cough may last a long time. It may wake you up at night. You may cough when you play or exercise.</td>
</tr>
<tr>
<td>Wheezing</td>
<td>Wheezing is a whistling sound when you breathe. This is the air trying to go through narrow airways.</td>
</tr>
<tr>
<td>Out of breath</td>
<td>When you feel out of breath you may have trouble breathing or feel like you can’t get enough air. You may need to breathe faster than normal.</td>
</tr>
<tr>
<td>Chest tightness</td>
<td>Chest tightness is when your chest feels tight or heavy. Your chest may hurt or feel like something is squeezing or pressing on it. You may feel like it is hard to get air in and out of your lungs.</td>
</tr>
<tr>
<td>Fatigue/tiredness</td>
<td>Fatigue or tiredness is when you get tired more easily than usual.</td>
</tr>
</tbody>
</table>

Know your symptoms so you can act quickly when they begin. Make a plan with your doctor or nurse practitioner. Acting early can keep symptoms from getting worse.
Asthma Categories

How bad is my asthma?

Your doctor or nurse practitioner will classify your asthma based on how often you have symptoms, or how sick you get. The categories are:

- Intermittent
- Mild Persistent
- Moderate Persistent
- Severe Persistent

Ask your doctor or nurse practitioner what category of asthma you have.

People in any category can get very sick when they have an asthma attack

- Be ready
- Have your medicines
- Know what to do
A person who sleeps well can do better at school. If you wake up at night coughing a lot, your asthma is not in control.

On follow-up visits, your doctor or nurse practitioner will check your asthma control:

- **Well controlled** = **No symptoms at all**
  - This is the goal for everyone.

- **Not well controlled** = **Some symptoms**
  - Talk to your doctor. Your plan may need changes to get your asthma well controlled.

- **Very poorly controlled** = **A lot of symptoms**
  - Talk to your doctor. Your plan may need changes to get your asthma well controlled.

**Ask your doctor or nurse practitioner how well you are doing.**

Talk to your doctor or nurse practitioner to make sure you are on the right medicines, especially when your symptoms change.
Asthma Attacks

An asthma attack is when your asthma symptoms get out of control and make you sick. Signs of a serious asthma attack can include:

- Cough, wheezing, or chest tightness
- Breathing hard and fast
- Lips or fingernails may turn blue
- Ribs may show more than normal when you are breathing in
- May not be able to walk or talk well

If this happens, get help immediately.

For more on asthma attacks, see page 24.
What is a Trigger?
**WHAT IS A TRIGGER?**

Triggers are things that can affect your asthma.

An asthma trigger is something that makes your asthma symptoms start up or get worse. Different people have different triggers.

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**COMMON TRIGGERS**

**INDOOR**
- Dust / dust mites
- Cats, dogs, or other animals
- Rats or mice
- Cockroaches
- Mold

**OUTDOOR**
- Pollen
- Plants, flowers, grass, or trees
- Changes in weather or seasons

**IRRITANTS**
- Cigarette smoke
- Strong smells (like cleaning products or perfumes)
- Air pollution or smog

**OTHER**
- Stress or worry
- Colds or sickness
- Exercise or play
- Food allergies
- Cold air

---

What are **YOUR** asthma triggers?

1. 

2. 

3. 

(Blank spaces for additional triggers)

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**TIP**

Knowing your triggers will help you manage your asthma.
TRIGGER CONTROL

What can I do about my triggers?

Think about what triggers your asthma. Try to avoid your triggers. You can plan ahead for when you know you will be around them.

IN THE HOUSE

DUST
- Dust often, but not when people with asthma are home.
- Avoid cloth curtains or carpet when you can. If you have them in your house, clean them often.
- Keep fewer stuffed animals. If you have them, wash them often. Do not sleep with stuffed animals.
- Wash sheets and bedding often.
- Use special covers for your mattress and pillow to control dust mites.

MOLD
- Mold likes to grow in warm, moist places.
- Make sure there is no standing water in the house (under the refrigerator, in plants, in the bathroom).
- Fix leaks so that there is no water damage on the walls, floor, or ceiling. Water damage allows mold to grow.

PESTS
- Use baits or traps instead of sprays to kill pests. Be sure to keep out of children’s reach.
- Bug sprays can trigger asthma attacks.
- Don’t leave food on the counters or in the sink. This can bring mice or roaches into your home.
- Fix holes around pipes and in the walls where pests may enter.

SMELLS AND ODORS
- Sprays and cleaning products with strong smells can bother people with asthma.
- Lemon, baking soda, and vinegar are safer for cleaning.
- Air fresheners, candles, and perfumes can also trigger asthma symptoms.
- People with asthma should not smoke or be around smoke.

OUTSIDE

If you have allergies to plants or pollen, know what months are worst for you. Plan ahead. Talk to your doctor or nurse practitioner about using an allergy medicine.
ALLERGIES

Is my asthma worse because of allergies?

An allergy is when your body reacts to something that is harmless to most people. An allergy can cause a rash, hives, itchy eyes, runny nose, sneezing, or coughing. People with asthma may have allergies that can make their asthma worse.

Some people are allergic to dust mites, pollen, mold, rats, mice, cats, dogs, cockroaches, or even foods. Allergies can make asthma harder to control.

How do I know if I have allergies?

There are different ways to test for allergies. One way is with a blood test. Another way is with a skin test. Your doctor or nurse practitioner may do these tests in his or her office or they may send you to a special doctor called an allergist.

Talk to your doctor or nurse practitioner to see if you need to be tested for allergies.
There are 2 kinds of medicine to treat asthma

RELIEVERS
Relievers work to relax tight muscles around the airways. Use your reliever medicine for quick relief of asthma symptoms.

CONTROLLER
Controllers work to reduce irritation, swelling, and mucus that block airways. If you are on a controller medicine, use it every day to prevent asthma symptoms. Ask your doctor or nurse practitioner if you need a controller medicine.

Healthy Lung
Open airways = Easy to breathe

Lung with Asthma
Narrow airways = Hard to breathe

Everyone who has asthma should have a reliever medicine. People who have asthma symptoms often should also be on a controller medicine.
## Asthma Medicines

### Relievers

Everyone with asthma should have a reliever medicine

Relievers are also called rescue medicines. They can come as an inhaler or go in a nebulizer machine.

**What do relievers do?**
- They relax the muscles around the airways.
- These medicines work right away.

**When should I use my reliever?**
- Only when you need it.
- For quick relief.
- When you are having symptoms (cough, wheezing, chest tightness, out of breath, fatigue/tiredness).
- Before exercise or activity, if needed.
- About half an hour before you are going to be around one of your triggers.

**My Reliever(s):**

### Controllers

Some people with asthma also need a controller medicine

Controllers can come as an inhaler or go in a nebulizer machine.

**What do controllers do?**
- They reduce irritation, swelling, and mucus in the airways.
- These medicines take time to work. Don't expect to feel different right away.

**When should I use my controller?**
- EVERY DAY (as directed by your doctor or nurse practitioner).
- They help your lungs stay healthier and stronger.
- If used every day, you will have fewer symptoms over time.
- If used every day, they will help when you are around one of your triggers.

**My Controller(s):**

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**Important!**

- When you have symptoms or an asthma attack, use your reliever for quick relief.
- If you are on a controller, use it every day, even when you are not having symptoms.
- If you are on a controller, you should also have a reliever. You will still need your reliever when you have symptoms.
MEDICINE TIPS

Talk to your doctor or nurse practitioner if your medicine is making you feel bad or sick. You might be having side effects. You may need to change to a different medicine.

Rinse your mouth after using inhaled controller medicines.

If you are on a controller, use it every day. Make taking your controller part of your regular routine.

Always use a spacer with your inhalers. More medicine gets into your lungs, so less gets on the inside of your mouth.

Don’t run out of medicine!

- Plan ahead.
- Make sure to get your refills before you run out of medicine.
- Check the date on your medicine. Do not use it if it is too old.
- Check that you have your medicine when you are going to be away from home.
**RELIEVERS**

- Albuterol Sulfate solution
- Proventil HFA (Albuterol)
- Ventolin HFA (Albuterol)
- ProAir HFA (Albuterol)
- Maxair Autohaler
- Xopenex solution

**CONTROLLERS**

- Pulmicort Turbuhaler
- Pulmicort Respules
- Qvar 40 HFA
- Qvar 80 HFA
- Symbicort 80/4.5
- Advair Diskus
- Advair HFA 115/21 inhaler
- Singulair 4 mg
- Singulair 5 mg
- Singulair 10 mg
- Flovent HFA 44
- Flovent HFA 110
- Flovent HFA 220
- Flovent Diskus 50
- Azmacort Inhaler
ORAL STEROIDS

Oral steroids are strong medicines taken by mouth. They are usually used for very short periods of time. They can help when your asthma is out of control and you are very sick.

Rhinocort Aqua
Nasonex
Flonase

ALLERGY MEDICINES

For some people, controlling their allergies helps control their asthma. Ask your doctor or nurse practitioner if you need any allergy medicines.

Nasacort
Zyrtec solution (Cetirizine HCl)
Zyrtec tablets (Cetirizine HCl)
Claritin Syrup (Loratidine)
Claritin Tablets (Loratidine)
Bring your inhaler with you when you see your doctor or nurse practitioner. Ask them to watch you use it. You can make sure you are doing it right.
USING A NEBULIZER

What is a nebulizer?
It is a machine that makes liquid medicine into a mist. You breathe the mist into your lungs.

How do I use a nebulizer?
1. Attach plastic tubing to the nebulizer machine.
2. Connect the other end of the tube to the medicine cup.
3. Put your medicine in the medicine cup.
4. Attach mask or mouthpiece to medicine cup.
5. Put mask over mouth and nose, or use mouthpiece.
6. Be sure not to breathe through your nose if you use the mouthpiece.
7. Turn on the machine.
8. Take slow, deep breaths.
9. Keep doing this, until all the medicine is gone from the cup and there is no more mist.
10. Clean the mask, mouthpiece, tubing, and medicine cup after use so that bacteria won’t grow.

You should always use the mask instead of the mouthpiece for babies and small children. They need the mask to get enough medicine into their lungs.

A treatment usually takes 5-10 minutes
Sit with the medicine cup upright during your treatment. This way, the medicine doesn’t spill out.

Parents’ tip
Nebulizer treatments can be scary for young children. Try to calm them. Give them something else to think about, like a favorite book.
PEAK FLOW AND SPIROMETRY

What is a peak flow meter?
It is a small, hand-held plastic tool used to measure how air flows from your lungs. High numbers mean better airflow. Low numbers mean your asthma is getting worse.

- Your doctor or nurse practitioner will help you practice. Find out your personal best number. Do this on a day that you feel well. This is your goal for when you do it at home.

- At home, check your peak flow to see how you are doing. When you get sick, your numbers will get lower. This is a sign for you to take action.

- If you feel well, high peak flow numbers show you and your doctor that your medicines are working.

What is spirometry?
This is a breathing test to see how well your lungs are working. For this test, you breathe into a mouthpiece connected to a computer, called a spirometer. Some doctors or nurse practitioners may have this machine in their office. Others will send you to a special lung doctor called a pulmonologist.

HOW DO I DO IT?
1. Stand up straight.
2. Make sure the pointer is at the bottom of the numbered scale.
3. Take a deep breath.
4. Place the mouthpiece in your mouth and close your lips around it.
5. Blow out as hard and as fast as you can, in one quick blow.

Repeat steps 1-5 two more times. Write down the highest number. This is your peak flow number.

Talk to your doctor or nurse practitioner to see if you need a peak flow meter and when to use it.
What is an Asthma Action Plan?

This is a plan that you make with your doctor or nurse practitioner.

• It helps you to know what to do when you have asthma symptoms.
• It reminds you to take your controller medicines every day, even when you are feeling well.
• It helps you decide when to use your reliever medicines.
• It helps you to know when you need to see your doctor or nurse practitioner. It can help you decide when to go to the emergency room.

Your asthma plan has all your information on one page. You can carry it with you. Give a copy to your school or people who help to take care of you.

Keep your asthma action plan up to date with all of your medicines. Keep it where you can see it every day.
**ASTHMA ACTION PLAN**

Everyone should have an asthma action plan!
Your doctor or nurse practitioner will help you fill out a form like this one.

### Patient Information

<table>
<thead>
<tr>
<th>Patient</th>
<th>Date of Birth</th>
<th>Parent/Guardian</th>
<th>Phone</th>
</tr>
</thead>
</table>

### Go! Green Zone

- **Peak Flow:** from _______ to _______
- **You have ALL of these:**
  - Breathing is easy
  - No cough, wheeze or trouble sleeping
  - Energy level is normal
  - No cough with play or exercise
  - Peak Flow number is in your Green Zone

### Warning! Yellow Zone

- **Peak Flow:** from _______ to _______
- **You have ANY of these:**
  - Having trouble catching your breath
  - Coughing, day or night
  - Mild wheeze
  - Fatigue
  - Chest feels tight
  - Peak Flow number is in your Yellow Zone

### Danger! Red Zone

- **Peak Flow:** from _______ to _______

**GET HELP NOW!**
  - Green and yellow zone medicines are not helping
  - Breathing is hard and fast. Can't catch a breath
  - Ribs may show when breathing in
  - Nose opens wide when breathing
  - Chest feels tight or hurts
  - May not be able to talk or walk well
  - Lips or fingernails may turn blue
  - Peak Flow number is in your Red Zone

Get HELP from a doctor or nurse practitioner NOW! Do NOT Wait! If you cannot reach the doctor, call 911 or go to an EMERGENCY ROOM right away.

### Take these medicines every day!

<table>
<thead>
<tr>
<th>Medicine</th>
<th>How Much</th>
<th>How Often</th>
</tr>
</thead>
</table>

### Take green and yellow zone medicines!

<table>
<thead>
<tr>
<th>Medicine</th>
<th>How Much</th>
<th>How Often</th>
</tr>
</thead>
</table>

### Take red zone medicines & call a doctor now!

<table>
<thead>
<tr>
<th>Medicine</th>
<th>How Much</th>
<th>How Often</th>
</tr>
</thead>
</table>

**Comments**

**Write down the triggers that make your asthma worse:**

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### Doctor or Practitioner Information

<table>
<thead>
<tr>
<th>Doctor</th>
<th>Nurse Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date filled out</td>
<td>Phone</td>
</tr>
</tbody>
</table>

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24
Trust yourself. If you feel like your asthma is acting up, take action! Talk to your doctor or nurse practitioner if you think your medicine or plan isn’t working.

BE READY!

Let your school, daycare or babysitters know about your medicine plan and triggers.

Carry inhalers and spacer, or leave them with the school nurse. You never know when you will need them!

School Medication Form - With this form, you will be able to keep your asthma medicine in the nurse’s office or carry it yourself, if you are old enough.

Have an emergency plan

Share it with your family, school, daycare or babysitters. These are things you may need if you have to go to the emergency room:

- ✔ Important contact phone numbers
- ✔ Letter from your parent giving permission for you to get care
- ✔ A copy of your insurance cards

WHAT YOU CAN DO

Have an emergency plan

Share it with your family, school, daycare or babysitters. These are things you may need if you have to go to the emergency room:

- ✔ Important contact phone numbers
- ✔ Letter from your parent giving permission for you to get care
- ✔ A copy of your insurance cards
PHONE NUMBERS/APPOINTMENTS

MY DOCTOR or NURSE PRACTITIONER
Name
Address
Phone number

Name
Address
Phone number

Name
Address
Phone number

MY PHARMACY
Name
Address
Phone number

MY SCHOOL/SCHOOL HEALTH OFFICE
Name
Address
Phone number

LOCAL ASTHMA RESOURCES

Remember: In an Emergency call 911
NATIONAL ASTHMA RESOURCES

National Heart Lung, Blood Institute (NHLBI)
National Asthma Education Program Information Center
P.O. Box 30105
Bethesda, MD 20824-0105
Phone: 301-592-8573
TTY: 240-629-3255
www.nhlbi.nih.gov

American Academy of Allergy, Asthma, and Immunization (AAAAI)
555 East Wells Street, Suite 1100
Milwaukee, WI 53202-3823
Phone: 800-822-2762
www.AAAAI.org

American Lung Association (ALA)
61 Broadway, 6th Floor
NY, NY 10006
Phone: 800-586-4872
www.lungusa.org

Consortium on Children’s Asthma Camps
490 Concordia Ave
St. Paul, MN 55103
Phone: 651-227-8014
www.asthmacamps.org

Asthma & Allergy Foundation of America (AAFA)
1233 20th Street, NW., Suite 402
Washington, DC 20036
Phone: 800-727-8462
www.aafa.org

The Allergy & Asthma Network/Mothers of Asthmatics Inc. (AAN/MA)
2751 Prosperity Ave., Suite 150
Fairfax, VA 22031
Phone: 800-878-4403 or 800-315-8056
www.aanma.org

Centers for Disease Control and Prevention (CDC)
1600 Clifton Rd.
Atlanta, GA 30333
Phone: 800-232-4636
TTY: 888-232-6348
www.cdc.gov/asthma

American Academy of Pediatrics (AAP)
141 Northwest Point Boulevard
Elk Grove Village, IL 60007-1098
Phone: 847-434-4000 National Headquarters, Illinois
Phone: 202-347-8600 Washington, DC Office
www.aap.org