

# ASTHMA



Children's  
Health Fund

## Family Asthma Guide



**The Goal  
is Control!**





## **Children's Health Fund**

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

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

Children's Health Fund  
212-535-9400

**[www.childrenshealthfund.org](http://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?

Play the clarinet



Have the lead  
role in a play



Yes  
you can!

Do karate



Play basketball



**Go to camp**



**Play outside with my friends**



**Play at the park**

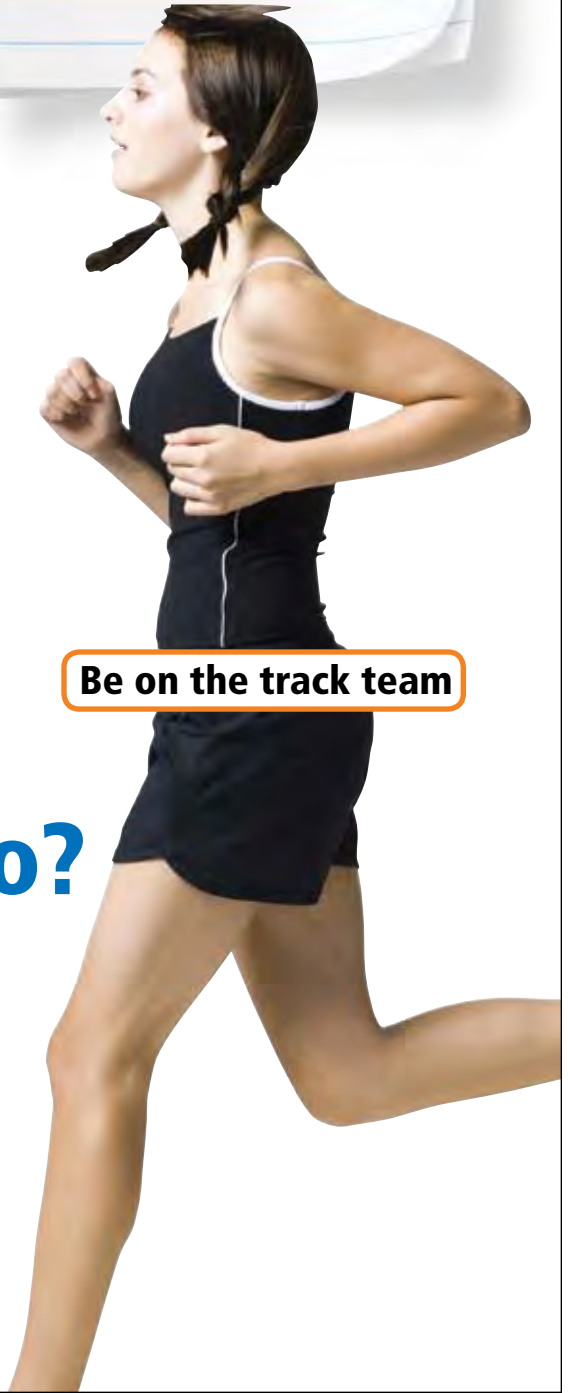


## **Did you know?**

There are even Olympic athletes with asthma!



**Be on the track team**



# **What do you like to do?**

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!

# 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?

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**1**

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**2**

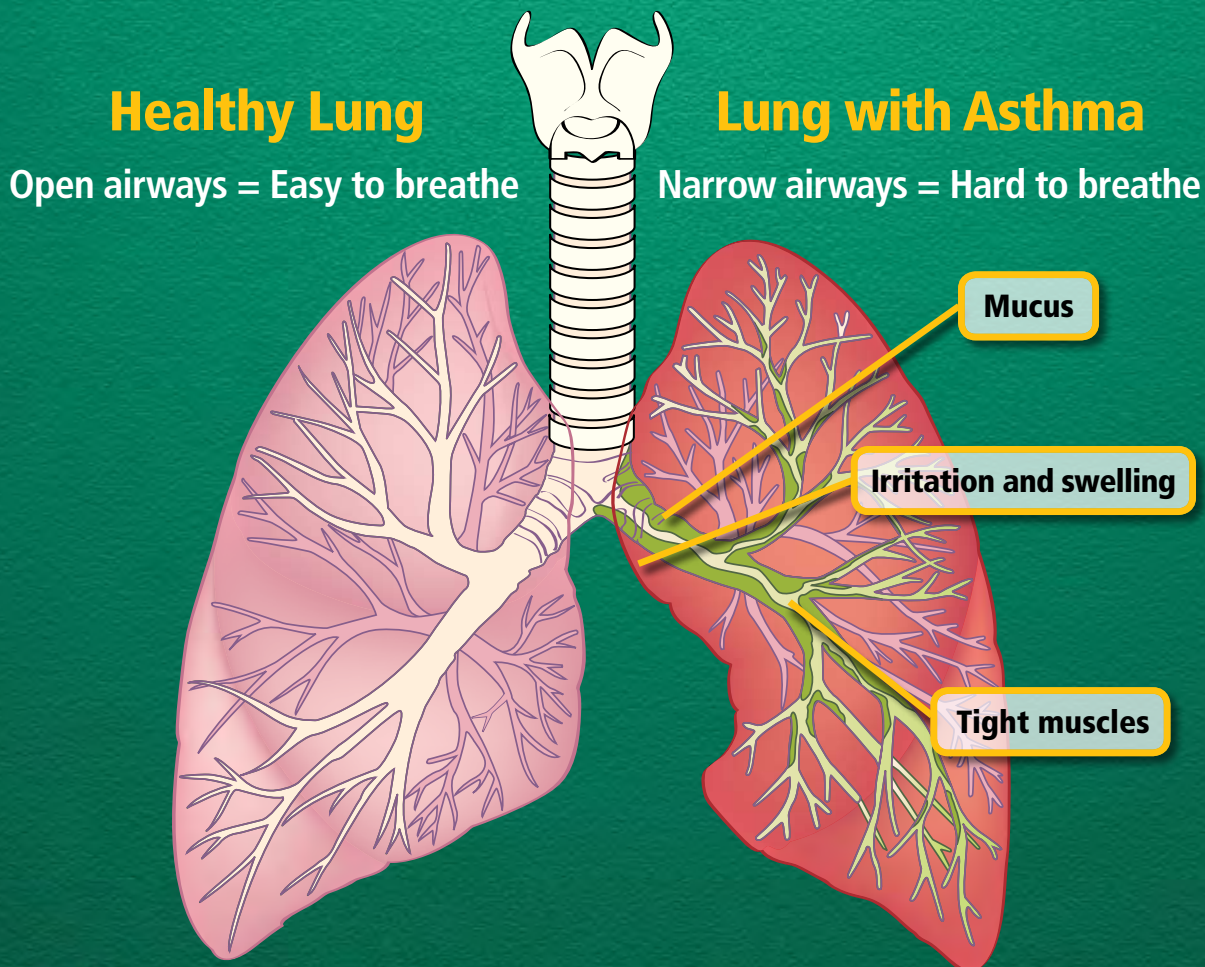
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**3**

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# 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.



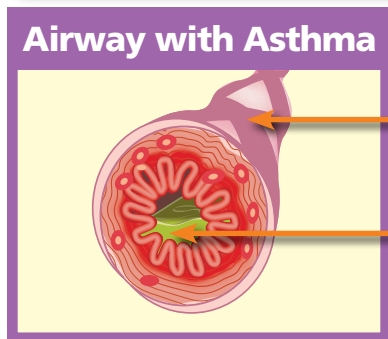
# WHAT IS ASTHMA?

**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!



# 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.



### Cough

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.

### Wheezing

Wheezing is a whistling sound when you breathe. This is the air trying to go through narrow airways.

### Out of breath

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.

### Chest tightness

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.

### Fatigue/tiredness

Fatigue or tiredness is when you get tired more easily than usual.



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?

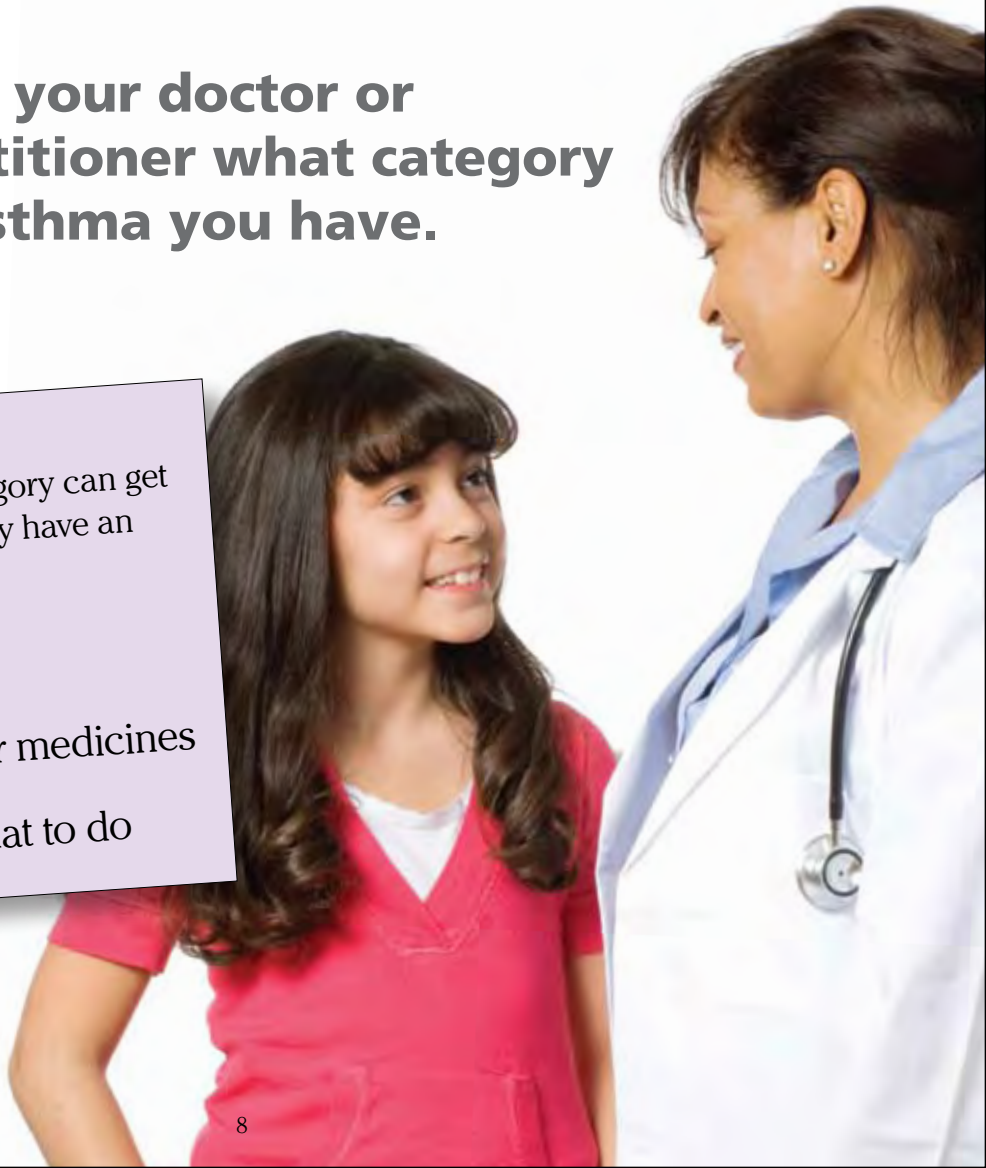
Your doctor or nurse practitioner will classify your asthma based on how often you have symptoms, or how sick you get. The categories are:




**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.**



**WHAT YOU CAN DO**

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

**ATTENTION**

# 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:

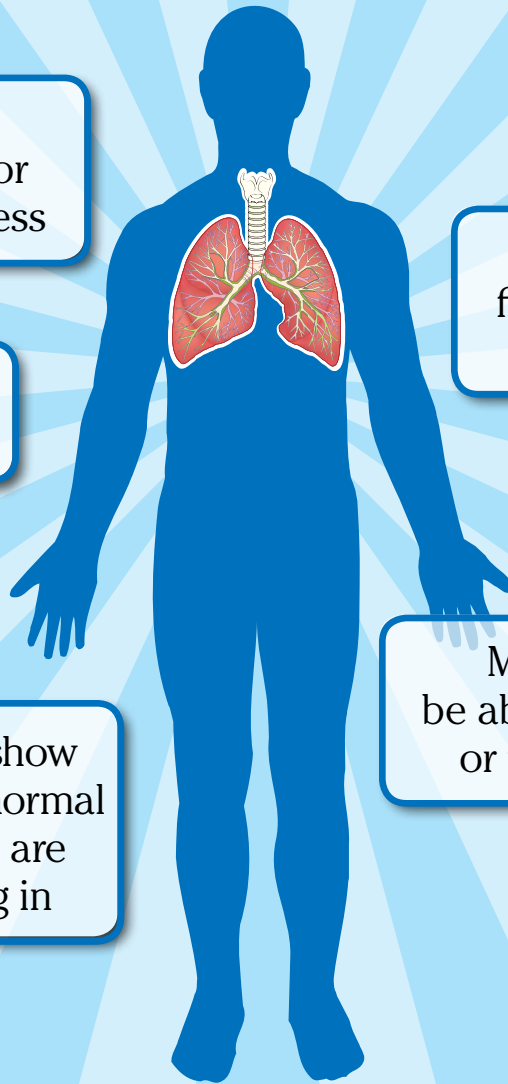
Cough,  
wheezing, or  
chest tightness

Breathing hard  
and fast

Ribs may show  
more than normal  
when you are  
breathing in

Lips or  
fingernails may  
turn blue

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?




TRIGGERS



# 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.

**TIP**  
  
Knowing your triggers will help you manage your asthma.

## 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



# 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.

# ATTENTION

## Smoke is bad for asthma!

People with asthma  
should NEVER be  
around cigarette smoke.

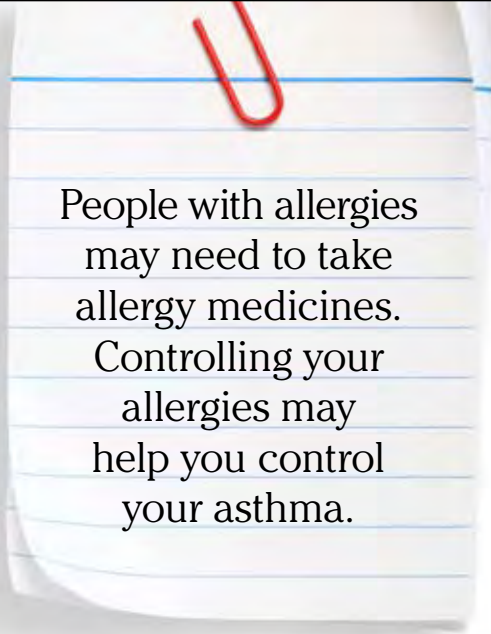


# ALLERGIES

## 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.



People with allergies may need to take allergy medicines.

Controlling your allergies may help you control your asthma.

## 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.



# What Medicine Should I Take?

## There are 2 kinds of medicine to treat asthma

### RELIEVERS

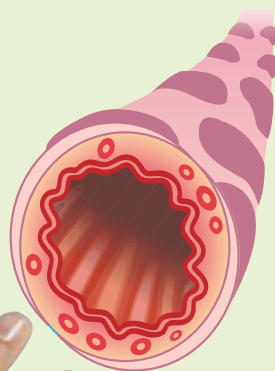
Relievers work to relax tight muscles around the airways. Use your reliever medicine for quick relief of asthma symptoms.

### 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.

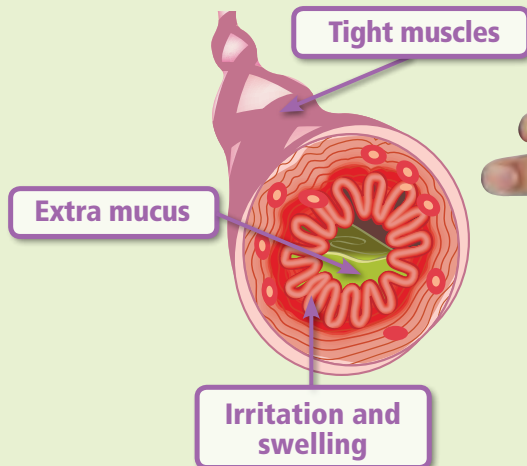
#### Healthy Lung

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):**

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## 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



Prelone Syrup  
(Prednisolone)



Orapred Syrup  
(Prednisolone)



Prednisone Tablet

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.

# ALLERGY MEDICINES



Rhinocort Aqua



Nasonex



Flonase

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)

# USING AN INHALER

## How do I use an inhaler?

### INHALER



- Sprays a mist of asthma medicine that you breathe in



### SPACER



- Allows medicine to go deep into your lungs instead of just into your mouth



### MASK



- Covers mouth and nose
- Used with spacer and inhaler for younger children



### INHALER

1. Shake inhaler.
2. Connect it to the spacer (with or without mask).
3. Put end of spacer in your mouth or mask over your nose and mouth.
4. Press down on inhaler.
5. Breathe in deeply and hold it for 10 seconds. If you can't do this, take 4 to 6 deep breaths.
6. If your doctor or nurse practitioner said to take 2 puffs, then wait 1 minute and repeat steps 1 to 5.

### DRY POWDER INHALERS

There are other kinds of inhalers that have powder inside, instead of mist. Ask your doctor or nurse practitioner if you are not sure what kind you have.

1. Do not shake.
2. Make sure you hold inhaler or disk right side up.
3. Twist or click dose counter.
4. Hold inhaler to mouth.
5. Breathe in hard, deep, and fast.
6. Hold breath for 10 seconds.
7. Be sure to breathe out from your nose. You don't want to lose any powder from your mouth.



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.



**ACTION PLAN**

# 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

Patient \_\_\_\_\_  
Date of Birth \_\_\_\_\_  
Parent/Guardian \_\_\_\_\_  
Phone \_\_\_\_\_

## Doctor or Practitioner Information

Doctor \_\_\_\_\_  
Nurse Practitioner \_\_\_\_\_  
Date filled out \_\_\_\_\_  
Phone \_\_\_\_\_

### 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

### Take these medicines every day!

Medicine	How Much	How Often
_____	_____	_____
_____	_____	_____
_____	_____	_____

Comments \_\_\_\_\_  
\_\_\_\_\_

### 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

### Take green and yellow zone medicines!

Medicine	How Much	How Often
_____	_____	_____
_____	_____	_____
_____	_____	_____

Comments \_\_\_\_\_  
\_\_\_\_\_

### 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

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

Medicine	How Much	How Often
_____	_____	_____
_____	_____	_____
_____	_____	_____

Comments \_\_\_\_\_  
\_\_\_\_\_

**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.**

Write down the triggers that make your asthma worse:  
\_\_\_\_\_

## 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



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.

# 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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## MY APPOINTMENTS:


**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](http://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](http://www.AAAAI.org)

**American Lung Association (ALA)**

61 Broadway, 6th Floor  
NY, NY 10006  
Phone: 800-586-4872  
[www.lungusa.org](http://www.lungusa.org)

**Consortium on Children's Asthma Camps**

490 Concordia Ave  
St. Paul, MN 55103  
Phone: 651-227-8014  
[www.asthmacamps.org](http://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](http://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](http://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](http://www.cdc.gov/asthma)

**American Academy of Pediatrics (AAP)**

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Elk Grove Village, IL 60007-1098  
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Illinois  
Phone: 202-347-8600 Washington, DC Office  
[www.aap.org](http://www.aap.org)



The Children's Health Fund Family Asthma Guide  
is made possible by a grant from



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