

Information you need to beat asthma

ASTHMA WORKBOOK



Good Health Asthma Guidelines

Action Plan and Daily Management Plan Review



Your child's doctor will give you a list of things to do when your child's symptoms change. You should review this action plan with your child's doctor at least once a year or whenever your child's condition changes. The Daily Management Plan from your child's doctor helps you make decisions about the daily treatment of your child's asthma. Ask your child's doctor to review this plan every time you take your child for an asthma checkup.

Monitor Peak Flow



A peak flow meter measures how fast your child can blow air out of his or her lungs and can help you tell if the asthma is getting worse by comparing your child's readings with his or her Personal Best Value. Your child's doctor may recommend that your child check peak flow every day, only when he or she has symptoms, or for a few weeks every year.

Flu / Pneumonia Vaccine



The flu vaccine is recommended for children who have certain chronic diseases, including asthma. Children under two or children two to five years old who are at high risk for pneumococcal infection should have a pneumococcal conjugate vaccine. Children two years and older with long-term illnesses associated with high risk of infection who have not had a pneumococcal conjugate vaccine should have the pneumococcal polysaccharide vaccination. Talk to your child's doctor about a pneumonia vaccine for your child.

Reliever Medications



Always keep at least a 30-day supply of asthma medications on hand.

How to use this book

Asthma is the most common chronic condition affecting American children. Asthma can be serious, but with the right treatment, knowledge and tools, your child's asthma can be fully controlled.

This book will help you understand asthma and what you need to do to control it and let your child live a normal, happy life. This means a child that:

- Has normal energy levels
- Enjoys playing or going to school
- Takes part in all activities
- Has no asthma emergencies
- Has no absences from school



Hi! My name is Andy,
and I'm an Asthma Hero!
Join my friends and me in our
adventures battling against
asthma. Learn how to be an
Asthma Hero with us, and we'll
fight asthma together!



This is Amy; she's an Asthma Hero too! Amy knows the warning signs of an Asthma Alert! Sisters and brothers, and moms and dads, too, can be your Breathing Buddies. They can sound the Asthma Alert for you, once they learn how to understand your asthma warning signs.

Warning Signs

Swelling of the breathing tubes can cause many symptoms. Watch out for any of these:

- Coughing
- Wheezy breathing
- Shortness of breath or fast breathing
- A tight feeling in the chest
- Tiring out easily when playing
- An irritable child
- A child that complains of a hurting chest or a chest that feels funny
- Babies that have difficulty nursing or that grunt while sucking
- Sucking in of the chest
- Waking up at night



Your child's asthma is not well controlled when:

- He or she wakes up at night with symptoms.
- Asthma symptoms are present more than twice a week.
- Early-morning symptoms don't go away 15 minutes after using a quick-relief inhaler.
- Symptoms appear when exercising or playing.
- More quick-relief medicine than usual is needed for symptoms.

Even with asthma,
I can't be stopped!
Asthma Heroes always watch
for their asthma signs
and listen to their
Breathing Buddies.
There's no way asthma
can keep me down!



Some Childhood Asthma Facts

1. **Asthma is caused by inflammation and swelling of the breathing tubes.**

Because the breathing tubes are inflamed when someone has asthma, they are swollen and sensitive. Some swelling may be present even when they feel fine and no symptoms are present. The swelling that causes narrowing of the breathing tubes can be controlled by using medication and by staying away from things that irritate the lungs.

2. **Asthma gets worse when the airways are irritated.**

Many things can trigger asthma attacks. Things in the air that your child is allergic to, infections and pollution can make the swelling of the airways increase, making it difficult to breathe.

3. **Most children with asthma have allergies.**

4. **Don't forget about asthma.**

Even when symptoms are fully controlled, you need to keep using your child's medicines the right way. Continue to avoid things that can irritate your child's lungs and work with your doctor to make sure you stay ahead of any changes in your child's asthma.



How Asthma Attacks

Asthma attacks can surprise even an Asthma Hero sometimes. It's good to know what kinds of things usually bother my breathing. I always let one of my Breathing Buddies know the minute I start to feel bad.



Many of the things that cause asthma symptoms to get worse can be avoided. Use the trigger sheet on pages 17 and 18 to help identify what triggers asthma symptoms in your child.

Knowing what signals an asthma attack can help you take action quickly and prevent the attack from getting worse.

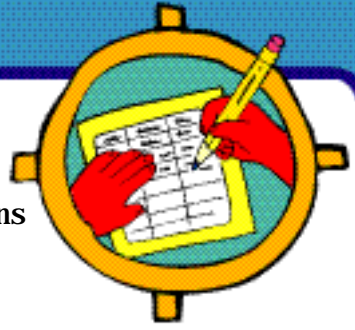
Avoiding Triggers

Always start working on removing triggers in your child's bedroom first:

- Keep your child out of rooms while vacuuming and for a short time afterward.
- Don't allow smoking in your home or near your child.
- Protect against dust mites by covering the mattress and pillows in special dust-free covers.
- Use hot water to wash bed linens at least every two weeks.
- Keep pets with fur or feathers out of your home or at least out of living areas.
- Remove all soft toys from your child's bed.
- Don't use a humidifier.
- Fix leaky faucets or taps to avoid mold.
- Avoid using cleaning agents around your child that have a strong odor.
- Wrap your child's nose and mouth with a scarf when going outdoors in very cold weather.



Working with your child's doctor




Your child's doctor will help you fill out two plans

Plan 1: The Personal Treatment Plan

Plan 2: The Action Plan

Your child's doctor will write your child's regular daily medication and how it must be taken on the Personal Treatment Plan on page 15. The regular daily medications keep asthma symptoms under control.

The Action Plan describes what your child needs to do when asthma symptoms get worse. The doctor will write down what and how much medication to use and when to contact a doctor or go to the emergency room.

A cartoon illustration of a male doctor with orange hair and glasses, wearing a white lab coat over a blue shirt. He is standing next to a young girl with pink hair in pigtails, wearing a pink superhero suit with a purple mask and a yellow 'M' on her chest. The background is blue with yellow stars and a green planet with a yellow ring.

Like all Asthma Heroes, Amy has an Asthma Headquarters where she sees her doctor. Doctors make sure that all Asthma Heroes and Breathing Buddies are prepared in their battle against asthma.

Get the most from your child's doctor visit

Always ask your child's doctor:

1. About any treatment questions you have.
2. About any concerns you may have about the treatment of your child's asthma.
3. If you are using the medications correctly.
4. About medication side effects.
5. If you are measuring peak flow the right way (if you are using peak flow).
6. About the next appointment and any tests or referrals that might be needed.

Information the doctor needs to know:

Every time you see your child's doctor, he or she needs to know how well controlled your child's asthma is. Use the Asthma Diary Sheet on page 16 if you are trying new treatments, or if anything about your child's asthma has changed. Keeping track of symptoms helps the doctor choose the best treatment for your child.

Tell the doctor:

1. The number of days in the past week your child had any asthma symptoms.
2. The number of nights in the past month your child had any asthma symptoms.
3. Peak flow values, if you are using peak flow.
4. The number of days in the past week when asthma limited what your child could do or stopped your child from doing what he or she normally does.
5. Details about any attacks your child has had since your last visit.
6. The amount of reliever puffs (or nebulizer treatments) used per week.

If your child is in school, kindergarten or day care:

Fill out the School Asthma Plan (on page 21) with the help of your child's doctor. Make a copy of the page and give it to your child's teacher and the school nurse.

I have two powerful weapons against asthma. My Controller protects me against breathing problems. My Reliever is my speedy recovery device that helps me if I can't breathe right.

Asthma Medication

There are two kinds of asthma medicine: Controllers and Relievers

CONTROLLERS

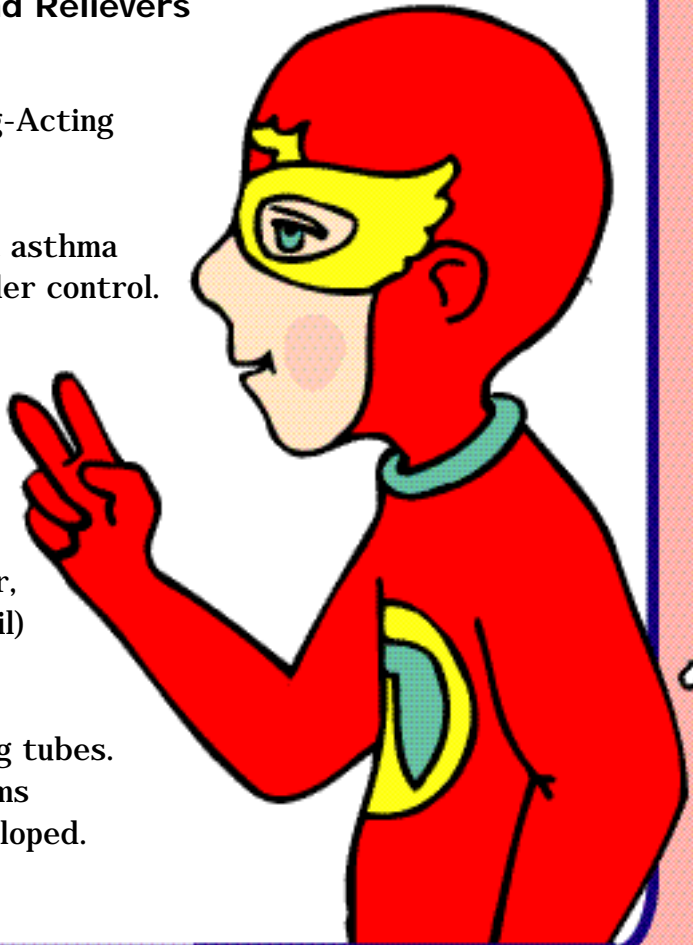
(Anti-Inflammatory and Long-Acting Bronchodilator medications)

Controller medicines prevent asthma attacks and keep asthma under control. Most controllers soothe the airways and reduce the inflammation that causes asthma symptoms.

RELIEVERS

(Short-Acting Bronchodilator, such as Albuterol or Proventil)

Reliever medicines relax the muscles around the breathing tubes. They relieve asthma symptoms when they have already developed.

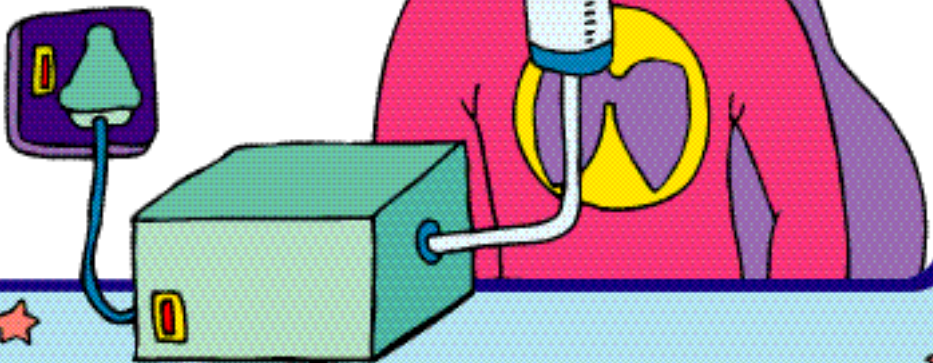


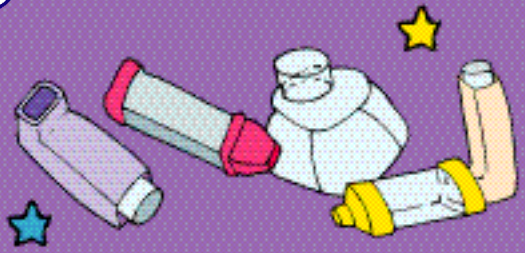
Here's Amy powering up with a Nebulizer. Asthma Heroes sometimes wear these bionic-breathing masks, which give them special powers for fighting asthma.

Asthma Skills - Using a Nebulizer

Your child's doctor may recommend a nebulizer for medication delivery. Be sure to read the instructions that come with the nebulizer so you can care for it properly.

- Most medications used in nebulizers are pre-mixed. Your child's doctor will write the prescription and specify the correct amount to use.
- The medication goes directly into the medication cup.
- Once the medicine is in the cup, secure the top of the medication cup and attach to either the mask or the mouthpiece, depending on which your child is using.
- Place the mask on your child's face. If using a mouthpiece, place the mouthpiece in your child's mouth and make sure his or her lips are around the mouthpiece and teeth and tongue are out of the way.
- Turn on the machine and have your child breathe normally through his or her mouth.
- Once the medication is gone from the medication cup and there is no more aerosol produced (usually about 15 minutes, depending on the type of machine and the amount of medication used), you can remove the mask or mouthpiece and turn off the machine.





This is Andy's mom - she's his favorite Breathing Buddy. Andy's mom is in charge of keeping track of all of Andy's asthma-fighting tools.

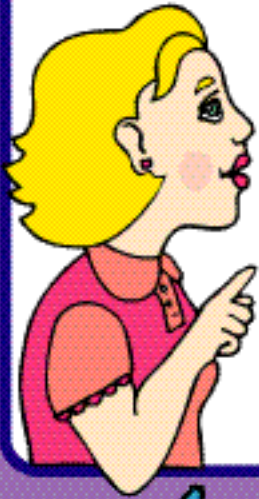
Spacers or Holding Chambers

Some children older than three years and most children older than five can use an asthma spray (Metered-Dose Inhaler) together with a spacer.

A spacer makes it easier for a child to breathe in asthma medicine properly and reduces side effects.

Your child can breathe in and out while using a holding chamber without losing the medication. The medication is kept in by a special valve in the chamber.

After using any asthma medicine, your child should rinse his or her mouth with water. The water should not be swallowed.



Amy is boosting her Asthma Hero powers with her Incredible Inhaler. She attaches a special Turbo Tube and breathes in extra Air Power.

Using a metered-dose inhaler with a spacer:

Your child's doctor will prescribe these as puffs; for example, two puffs, twice a day.

Every time the top of the medicine container is pressed, the same amount of medicine is sprayed through the mouthpiece. This is one puff. The mist should be breathed in while taking a slow, deep breath that's held in for about ten seconds. If your child has a spacer or holding chamber with a facemask, then allow three to five breaths per puff of medication. Relievers should be used before Controllers.

Check with the doctor to see if your child is doing this right. Slow is the way to go.



Asthma Skills

Asthma Skills

How to use an inhaler with a spacer:

(Go through this with your child, step by step)



1

- Remove the mouthpiece caps from both the inhaler and the spacer.
- Attach the inhaler to the spacer.
- Shake the inhaler.
- Breathe out all the way.



2

- Press down on the inhaler.
- Be sure to press the inhaler down only once for each puff of medication.
- Breathe in slowly, as deeply as you can, and hold your breath.



3

- Keep holding your breath while you slowly count to 10 to allow the medicine to reach deep into your lungs.



4

- Breathe out. Wait one full minute before pressing down again.
- Repeat steps 1 - 3.



5

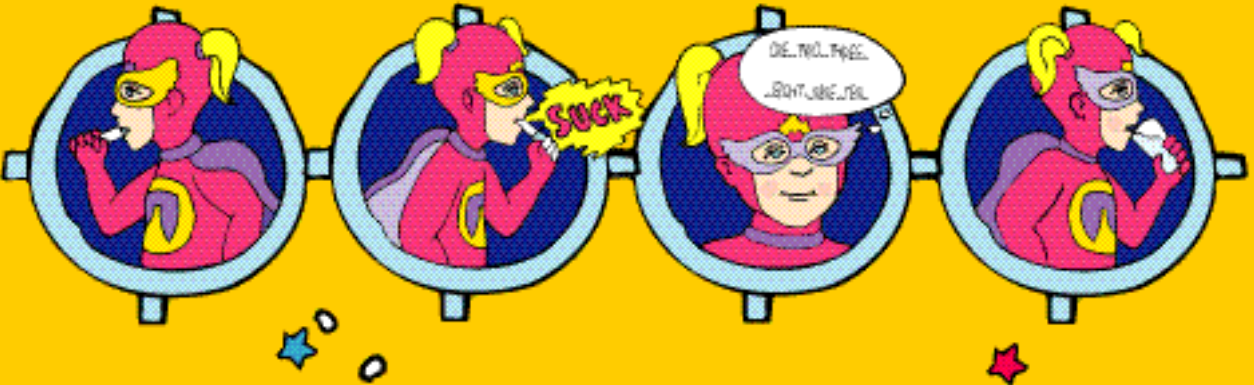
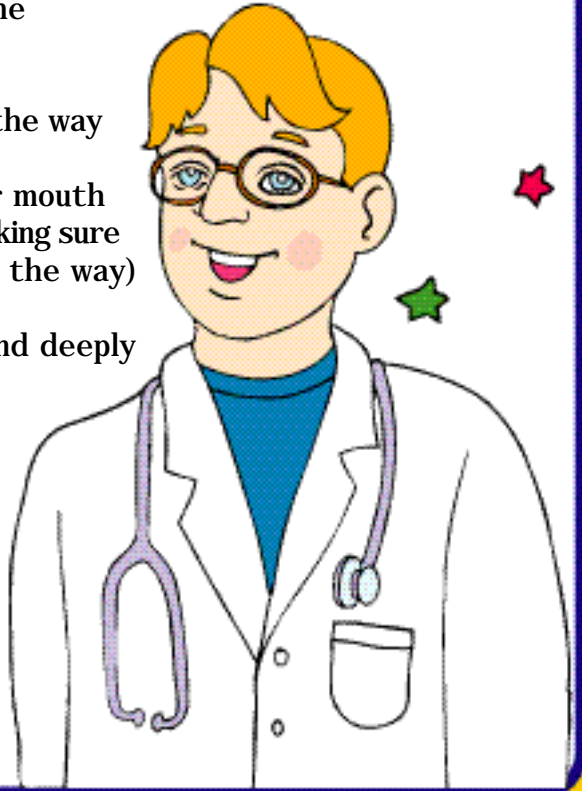
- Clean your inhaler: Rinse the mouthpiece thoroughly with warm water daily. Let it dry overnight before putting the container back in.

Sometimes Asthma Heroes need a burst of powder power. At Asthma Headquarters, the Doctor explains how it works:

How to use a dry-powder inhaler (DPI)

Your child's doctor may prescribe medication that comes as a dry-powder inhaler. Ask the doctor to show you how to activate the medication, then:

- Take off the cap that covers the mouthpiece of the inhaler
- Have your child breathe out all the way
- Have your child place his or her mouth over the mouthpiece securely (making sure the tongue and teeth are not in the way)
- Have your child inhale quickly and deeply
- Have your child hold his or her breath for 10 seconds
- Repeat above steps for additional medication as prescribed by your child's doctor. Have your child rinse mouth and throat after use (being careful not to swallow the water).



Keeping track of asthma

To keep track of your child's asthma, check out these traffic light zones.

Red Zone

Peak flow is less than 50% of personal best
 Same or increased symptoms for more than 24 hours
 More than 24 hours in the yellow zone
 Very short of breath
 Asthma medicines have not reduced symptoms

Call your child's doctor or go to the emergency room or call an ambulance 911.

Yellow Zone

Peak flow is between 50 and 80% of personal best
 More symptoms
 Usual activities limited
 Need more medicines
 Waking up at night

Check with doctor about changing medication or follow the plan your child's doctor has developed for the yellow zone.

Green Zone

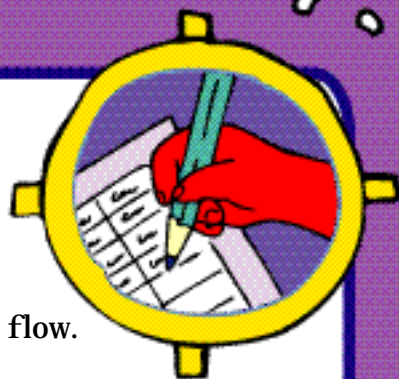
Peak flow is above 80% of personal best
 No symptoms
 Able to do usual activities
 Usual medicines control asthma

Take medication as usual

Asthma Heroes are smart. All Asthma Heroes know the traffic zone - it's their essential Asthma Decoder. Andy and the other Asthma Heroes have a special device called a peak flow meter. Andy uses it every day to measure his Air Power strength.



Asthma changes over time.
Learn to tell how well controlled
your child's symptoms are.



Measuring peak flow

Most children older than five can measure peak flow.

A peak flow meter is an early warning system. It measures how well the air is moving through your child's lungs. When asthma starts to get worse, your child's breathing tubes start to narrow slowly. A peak flow meter can warn you of an attack hours or even days before it happens.

There are two ways to measure peak flow to check on asthma control:

- Every morning when waking up, before using any medication
- In the morning and late afternoon

When asthma symptoms are getting worse:

- Measure before and 15 minutes after taking reliever medication to see how well the medicine works and what else you should do

Skills - finding the personal best peak flow number

The best way to check on asthma is to compare how well air is moving out of the lungs with the best your child can do. This number is called the Personal Best Number. It is the highest number your child can reach over a two- to three-week period.

Your child's asthma must be under good control when you find the personal best number. This means your child must feel good and have no symptoms.

- Take the first reading immediately after waking.
- Take the second reading between noon and 2pm.
- Take another reading before and after reliever medication (if used).
- Do this for two to three weeks.
- Write the numbers in the Personal Best Peak Flow Chart.
- The highest reading is your child's Personal Best Number.

As children grow, their lungs get bigger. You need to find a new Personal Best Number every six months.

Peak Flow	S	M	T	W	TH	F	S
Wake-up							
Noon-2 pm							
After quick relief							

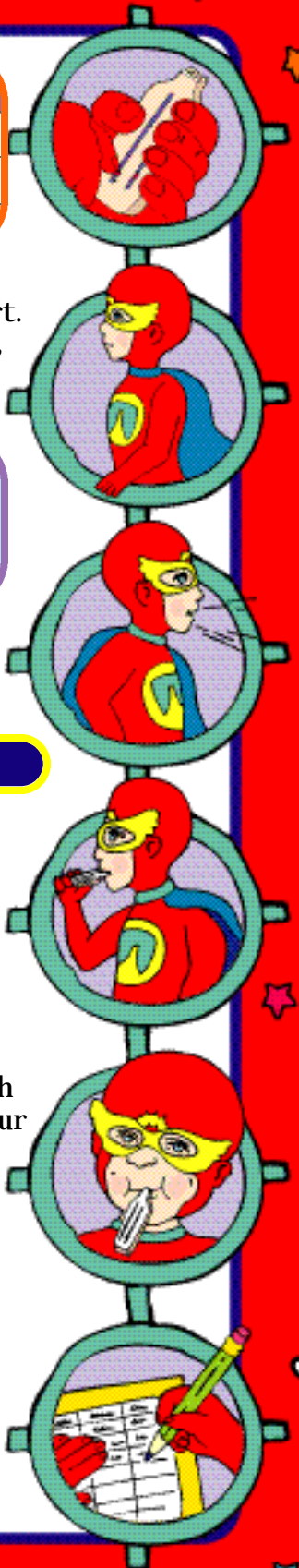
- Write the numbers in the Personal Best Peak Flow Chart.
- Now that you know your child's personal best peak flow, you can figure the green, yellow and red flow zones.

Alert	Below 50% of personal best:
Caution	50-79% of personal best:
All Clear	80%-100% of personal best:

Skills - the right way to use a peak flow meter

Go through this with your child, step by step

1. Move the indicator to the bottom of the scale.
2. Stand up. Breathe out to empty lungs.
3. Take as deep a breath as you can.
4. Hold your breath, put the mouthpiece in your mouth and close your lips tightly around it. **DON'T** put your tongue inside the hole.
5. Blow out as hard and as fast as you can in one big breath. If you cough or make a mistake, start over.
6. Repeat the steps two more times. Write down the highest number you get. **THIS IS YOUR CHILD'S PEAK FLOW.**



Skills - your peak flow zone

- Now that you know your child's Personal Best Number, work out 80% and 50% of this number.
- Write this on the Health Status Card and use it to check your child's status at any time.

Personal treatment plan

Medicine	Name	How much	When to take	Maximum per day
RELIEVER				
Short-acting bronchodilator				
Steroid "burst"				
LONG-TERM CONTROLLER				
Inhaled steroid				
Anti-inflammatory				
Long-acting bronchodilator				
Chromolyn/ Nedocromil				
Leukotriene				
Oral steroid				
Theophylline				
Other				

Make a copy of this worksheet and update after each doctor's visit.

My goals are:

- To have no severe symptoms.
- To have the best possible lung function.
- To participate in any activities of my choice.
- Not to miss school or play because of my symptoms.
- Not to have asthma emergencies.
- To have as few medicine side effects as possible.
- Not to need my reliever medicine more than twice a week.



Month:

Year:

Asthma Diary

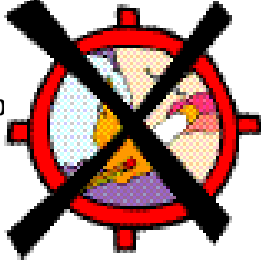
Day	Symptoms			Activity	Sleep	Medication Used	Peak Flow	Comments
	Cough	Wheeze						
S	None Mild Severe	None Mild Severe	None Mild Active	Good Interrupted Bad	Quick relief β2 Chromoglycate Inhaled steroid Other - inhaled Oral steroid Theophylline	a.m. p.m. other		
M								
T								
W								
Th								
F								
S								
S								
M								
T								
W								
Th								
F								
S								

Make 24 copies of this worksheet and fill one out every two weeks.

You need to figure out what makes your child's asthma worse. Some things that make asthma worse for some people are not a problem for others. You may not need to do all the things listed below. Ask your doctor to help you find your child's triggers and put a check next to them.

■ Tobacco smoke

- If you smoke, ask your doctor for ways to help you quit. Ask other family members to quit smoking.
- Do not allow smoking in your home or around your child.



■ Animal allergies

- The best thing to do:
- Keep pets with fur or feathers out of your home.



If you can't keep the pet outdoors, then:

- Keep the pet out of your child's bedroom and keep the bedroom door closed.
- Keep pets out of living areas.

■ Vacuum cleaning

- Keep your child out of rooms while vacuuming and for up to one hour afterwards.

■ Indoor mold

- Fix all water leaks in your house.
- Clean moldy surfaces with a cleaner that contains bleach.

■ Pollen and outdoor mold

- Keep windows closed in the afternoon.

■ Dust mites

- Cover your child's mattress and pillow in a special dust-proof cover.
- Wash your child's sheets and pillowcases in hot water every two weeks.
- Don't use a humidifier.
- Don't let your child sleep or lie on cloth-covered furniture.
- Remove loose carpets from your child's bedroom and also carpets laid on concrete.
- Keep stuffed toys out of your child's bed and wash them in hot water once a week.

Asthma Triggers

■ Cockroaches

- Keep all food out of your child's bedroom.
- Keep food and garbage in closed containers.
- Kill cockroaches. If you use spray, keep your child out of the room until the odor disappears.



■ Smoke, strong smells and sprays

- Try to avoid burning wood in the house.
- Keep your child away from kerosene heaters.
- Your child should avoid strong smells and sprays such as hairspray, talcum powder, perfume and paint.

■ Exercise, sports, work and play

- Try not to let your child be active outside in allergy season, in very cold weather, or if the air pollution level is high.

■ Other asthma triggers

- Infections
- Flu: Your child needs a flu shot every year.
- Some foods.
- Cold air.
- Other medicines.

Update this chart as you identify your child's asthma triggers.

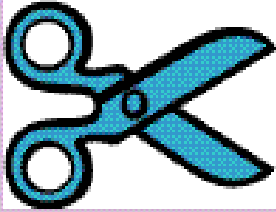


Great job!
Now you're ready to be
an Asthma Hero!
Don't forget your
Action Plan!

Health Status

This is your child's Health Status Scorecard.

Fill out the Action Plan on the back of the card with your child's doctor. This sets out your action plan for each situation that your child might face.



Cut card out along edges and fold at dotted lines.

Make sure that your child always carries this scorecard so that he or she is prepared for any situation.

ASTHMA



Health Status Scorecard

• If my peak flow is:

All Clear

- No symptoms
- Able to do usual activities
- Usual medicines control asthma

• If my peak flow is:

Alert

- Increased symptoms
- Usual activities somewhat limited
- Increased need for asthma medicines

• If my peak flow is:

Emergency

- Increased symptoms longer than 24 hours
- Very short of breath
- Asthma medicines have not reduced symptoms

My Action Plan



Long-term control medicine:

Name:	How Much:	When:

Before exercise:

_____ 2 or 4 puffs
(15-30 minutes before exercise)



Keep on taking green zone medicine and then:
First add quick-relief:

_____ 2 or 4 puffs, every 20 min., up
to one hour, or nebulizer once.

If symptoms and peak flow return to green zone in 1 hour:

- Take quick-relief medicine every 4 hours for 1 or 2 days.
- Double the dose of inhaled steroids for ___ days.

If not in the green zone in 1 hour:

- Take quick relief _____ 2 or 6 puffs or nebulizer.
- Add oral steroid _____ mg per day for ___ days.
- Call doctor before taking oral steroid or within ___ hours of taking steroid.

Take this medicine:

- Take quick relief _____ 2 or 4 puffs or nebulizer.
- Add oral steroid _____ mg per day.

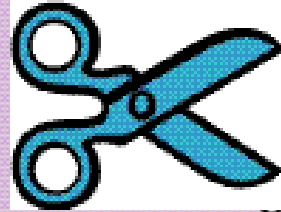
And call the doctor immediately.

Call an ambulance or go to the hospital if:

- Still in the red zone after 15 minutes AND
- You have not reached the doctor.

Call an ambulance or go to the hospital if:

- Trouble walking and talking.
- Lips or fingernails are blue.



Cut card out along
edges and fold at
dotted lines.

**Make sure that
your child always
carries this scorecard
so that he or she is
prepared for any
situation.**



School Asthma Plan

Name: _____ Grade: _____ Age: _____

Teacher: _____ Room: _____

Place
Photo
Here

Parent: _____ Phone: _____

Parent: _____ Phone: _____

Doctor: _____ Phone: _____

These things can start my asthma attack:

- | | | |
|---------------------------------------|--|-------------------------------------|
| <input type="checkbox"/> Exercise | <input type="checkbox"/> Strong smells/fumes/smoke | <input type="checkbox"/> Chalk dust |
| <input type="checkbox"/> Pollens | <input type="checkbox"/> Carpets in the room | <input type="checkbox"/> Molds |
| <input type="checkbox"/> Foods: _____ | <input type="checkbox"/> Weather | <input type="checkbox"/> Animals |
| _____ | <input type="checkbox"/> Infections | <input type="checkbox"/> Other |

If the child has an asthma attack, do this first:

Return to the classroom if:



Seek emergency medical care if:

- No improvement 15 minutes after reliever medicine.
- Peak flow of _____ (less than 50% of Personal Best Number).
- Difficulty breathing with one or more of the following:
 - Chest and neck pulling in with breathing.
 - Child is hunched over.
 - Child is struggling to breathe.
 - Trouble walking or talking.
 - Stops playing and can't start again.
 - Lips or fingernails are gray or blue.



Make a photocopy of this worksheet, ask the doctor to help fill it out and give it to your child's teacher and the school nurse.

