

A Guide to Living With Asthma



Provided as an educational resource by Merck



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1. Introduction

There are a lot of myths about asthma, such as:

No symptoms means no asthma. Moving to a dry place will cure asthma.

And, perhaps the biggest myth of all, asthma does not really affect my life.

7 fast facts about asthma

The National Institutes of Health (NIH) has declared asthma a major health problem in the United States. You may not know it, but:

- 34.1 million Americans have had asthma at some time.
- 9.9 million of them are children.
- Nearly 1.8 million emergency room visits are the result of asthma flare-ups each year.
- A half million emergency room visits are for children under 15 years old.
- Asthma causes about 12 million missed workdays each year.
- It's a major cause of missed school days among children 5 to 17 years old.
- The cost of asthma is estimated to be at least \$19 billion a year.

This booklet will give you facts, tips, and tools to help you know more about asthma and how to manage it day to day.

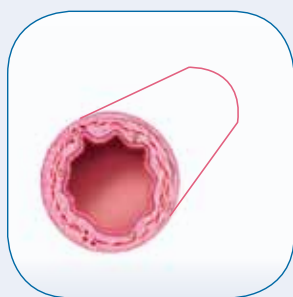
2. Asthma Basics

Asthma is a chronic disease—that means once you have it, you'll most likely have it for life. When you have asthma, certain things around you can cause your body to react. (See pages 7–8 for a full list of asthma triggers and tips on how you can limit your contact with them.)

What happens during an asthma attack?

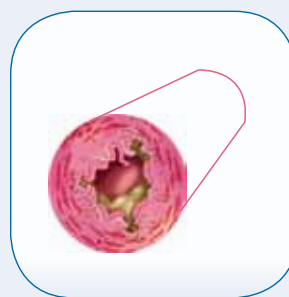
Asthma affects the airways of the lungs. It causes them to become swollen and irritated. When this happens, your breathing becomes more and more difficult. You also may cough and wheeze. If this continues, you may even have trouble walking and talking.

Normal Airway



Breathing tube
is open

**Airway During an
Asthma Attack**



Breathing tube
is narrowed

Who gets asthma?

Anyone can get asthma. People who have allergies have the greatest chance of getting it. If there is asthma in your family, you might get asthma too. It is not always clear why people get asthma.

What do asthma symptoms feel like?

Asthma symptoms can vary from person to person. However, the most common asthma symptoms are:

- **Wheezing**

You hear a high-pitched whistling sound when you breathe.

- **Chest tightness**

It can feel as if someone is sitting on or squeezing your chest.

- **Shortness of breath**

You feel like you cannot catch your breath or are out of breath. You may even feel as if you cannot get enough air in or out of your lungs, like you are breathing through a straw.

- **Coughing**

Symptoms are often worse at night or in the early morning. This may be one of many symptoms or it may occur on its own.



Asthma Basics continued

Can asthma be cured?

Asthma cannot be cured, but it can be treated. That's important to know. If asthma is not managed, symptoms can worsen, which can:

- Limit the things you do
- Cause missed days of work or school
- Lead to future asthma episodes

Remember, even when your asthma seems quiet and does not bother you, it is still there.

Can asthma be controlled?

Asthma usually can be controlled. Knowing what to do can help you manage and control your asthma better. Some things you can do are:

- Work with your doctor
- Learn about your asthma
- Try to limit contact with asthma triggers
- Take the medicines your doctor has prescribed

Is *your* asthma under control?

If you have asthma, you may think that you are doing just fine. After all, you may not have asthma attacks often. And when you have asthma symptoms, you may use your rescue inhaler (also called a fast-acting pump or puffer). (See page 16 for more details about inhalers.) But people with symptoms of asthma may find themselves making more changes than they realize, such as:

- Taking escalators instead of stairs
- Staying indoors when it's cold
- Limiting physical activity

If you've made these or any other changes in your life because of asthma, you may be missing out.



To really know how much asthma is affecting your or your child's life, take this short quiz.

Have you recently missed work, or has your child missed school, due to asthma symptoms?

☐ Yes ☐ No

Does your or your child's asthma stop either of you from taking walks in the park, cleaning your house, or doing other things you want to do?

☐ Yes ☐ No

Does asthma wake you or your child at night?

☐ Yes ☐ No

Do you, or does your child, have symptoms such as a cough or trouble breathing more than 2 days a week?

☐ Yes ☐ No

Do you, or does your child, use a rescue inhaler more than 2 days a week for asthma other than for exercise-induced symptoms?

☐ Yes ☐ No

If you answered **Yes** to even 1 of these questions, your or your child's asthma may not be under control.

On the following pages, you will learn what you can do to get better control of your or your child's asthma, and help stop symptoms **before** they start. Knowing what triggers your or your child's asthma is an important first step.

3. Know Your Asthma Triggers

Not everyone reacts the same way to the same asthma triggers. Although it may be hard to always avoid them, here are some ways to help manage common asthma triggers.

Put a check next to the triggers that you know make your asthma worse and ask your doctor to help you find out if you have other triggers as well. Then decide with your doctor what steps you can take to help stop symptoms before they start.



☐ Animal Dander

Dander is flakes of skin or dried saliva from animals with fur or feathers.

- Wash pets weekly, if possible.
- Keep furry or feathered pets out of your home.
- Keep pets out of your bedroom or at least keep the door closed.
- HEPA (high-efficiency particulate air) filters may reduce airborne allergens from cats and dogs.



☐ Dust Mites

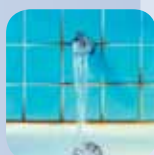
Dust mites are tiny bugs that are found in every home.

- Put your pillow in a special dust-proof cover and wash the pillowcase each week in hot water.
- Wash the sheets and blankets on your bed every week in hot water.
- Keep stuffed toys out of the bed or wash the toys weekly in hot water.



☐ Cockroaches

- Keep food and garbage in closed containers. Never leave food out.
- If a spray is used to kill roaches, stay out of the room until the odor goes away.



☐ Indoor Mold

- Fix leaky faucets, pipes, or other sources of water that have mold around them.
- Clean moldy surfaces with a cleaner that has bleach in it.



☐ **Pollen and Outdoor Mold**

- Keep windows closed; use air-conditioning when possible.
- Stay indoors from late morning to afternoon. Pollen and mold spores are highest at that time.
- If you must be outdoors during high-pollen times, shower after exposure.



☐ **Tobacco Smoke**

- Do not allow smoking in your home or car.
- See the section on “Smoking and asthma” on page 9.



☐ **Smoke, Strong Odors, and Sprays**

- Try not to use a wood-burning stove, kerosene heater, or fireplace.
- Try to stay away from strong odors and sprays, such as perfume, talcum powder, hair spray, and paint.

Other things that bring on asthma symptoms in some people:

☐ **Vacuum Cleaning**

- Try to get someone else to vacuum for you, if you can.
- If you vacuum, use a dust mask (from a hardware store), a double-layered or microfilter vacuum cleaner bag, or a vacuum cleaner with a HEPA filter.

☐ **Other Things That Can Make Asthma Worse**

- **Sulfites** in foods and drinks, such as beer, wine, dried fruit, and processed potatoes, can cause flare-ups in some people.
- **Cold air:** Cover your nose and mouth with a scarf on cold or windy days.
- **Other medicines:** Tell your doctor about all the medicines you take. Include cold medicines, aspirin, and vitamins and other supplements.

Know Your Asthma Triggers continued

Smoking and asthma

If you smoke and have asthma, it can cause more serious and frequent flare-ups.

When you inhale smoke, it irritates the linings of your airways. The smoke also damages little hair-like projections in your airways, known as “cilia.” Cilia help clear dust and mucus from your airways. When cilia are harmed, they don’t work, so more mucus builds up in the airways.

Second-hand smoke is harmful

The smoke that comes from the end of a cigarette or cigar is also harmful. And, children are at risk from second-hand smoke even more than adults. This is because their lungs are smaller and still developing.

Children with asthma who live with smokers:

- May have more flare-ups
- Are more likely to be rushed to the emergency room for treatment
- Are more likely to stay home from school due to asthma
- Need to take more asthma medicine
- Have more trouble controlling their asthma, even with medicine



Exercise—a surprising asthma trigger for some

Many of the 34.1 million Americans who have had asthma have asthma symptoms when they exercise. This is called exercise-induced asthma (EIA). Symptoms of EIA may start 5 to 20 minutes into exercise, and may go on for some time after stopping exercise. If your child has EIA, he or she may have more trouble breathing in the cold, dry air. The tips on page 10 can help reduce the risk of a flare-up.



Exercise continued

Warm up, cool down

Warming up before exercising, and gradually cooling down after, may reduce flare-ups.

Keep out the cold

Cold air is a common asthma trigger. Use a loose scarf to cover your nose and mouth in cold weather. If you can, exercise in a warm and humid place.

Medicine

Your doctor, or your child's doctor, may have prescribed a medicine to help control EIA. As always, follow the doctor's advice about medicine and exercise.

Choose the right sports

In general, swimming and sports with short bursts of energy, like football, baseball, and sprinting, are usually fine for both children and adults with EIA. However, sports that need long periods of exertion with little or no rest, like hockey, long-distance running, and soccer, may cause more asthma flare-ups. These sports should not be off-limits, but they should be approached with caution. As always, talk to the doctor first.

What does exercise-induced asthma (EIA) mean for your child's active life?

Your child can still lead an active life with EIA. As a matter of fact, it's important for your child to stay active. Many medal-winning Olympic and professional athletes have asthma.

Regular exercise is good for everyone. With proper control, asthma symptoms should not stop people with asthma from working out and having fun.

Of course, before you or your child start any new exercise or sport, it's important to talk to the doctor.

If you're not sure if you have, or your child has, asthma, there are tests a doctor can perform to know for sure.

4. Diagnosing Asthma

For many people with asthma, symptoms such as coughing, wheezing, and shortness of breath are things they've come to accept as facts of life.

But the fact is, you can help prevent many asthma symptoms before they start. Having a better understanding of how asthma affects your airways and partnering with your doctor can help get it under control.

Pulmonary function tests

The first thing your doctor may do is perform one or more lung function tests. Here are some of the tests your doctor can do to see if you have asthma:

- **Spirometry/pulmonary function tests** see how much air you can breathe in and out and how quickly.
- **Peak flow testing** checks how fast you can blow air out of your lungs.
- **Lung volume measurement** checks the size of your lungs and how much air you can breathe in and out.
- **Lung diffusion capacity** measures how well your lungs can get oxygen into your blood.

These tests also are done to find out if you have any other breathing problems and to check how well your asthma medicine is working.





Using a peak flow meter

Your doctor may give you a peak flow meter to use at home to measure how open your airways are. This small, handheld device measures how fast you can blow air out of your lungs. The greater the force, the better your lungs are working.

When you are first diagnosed with asthma, your doctor will use the peak flow meter to learn your “personal best” number. That’s the highest number you get when your asthma is under control. In the future, you can use that number to know if your asthma is under control. The meter can help warn you of an asthma attack even before you have symptoms, so it’s important to keep one handy. Your doctor will show you how to use it the right way.

Family doctor or asthma specialist—who to see for your treatment

For the most part, a family doctor can tell whether you have asthma. However, there may be times when your family doctor wants you to see a specialist, such as an allergist. See page 13 to learn more.



Diagnosing Asthma continued

Some reasons you might need to see an allergist:

- Your asthma stops you from doing the things you want to do.
- Your asthma wakes you or keeps you up at night.
- You have symptoms such as a cough or trouble breathing more than 2 days a week.
- You use your rescue inhaler more than 2 days a week, other than for exercise-induced asthma (EIA) symptoms.
- You're only at 60% of your peak flow personal best.
- Your asthma therapy goals are not being met.
- You have had 2 or more emergency room visits or hospital stays within the past 6 months.

5. Controlling Your Asthma

More is known about asthma today than even 10 years ago. According to the National Institutes of Health (NIH), people who actively manage their asthma—which includes limiting their contact with triggers, working with their doctor, and taking their medicine every day, if prescribed—can help prevent symptoms. And that can help you enjoy a more active life with:

- Fewer asthma symptoms
- Fewer nights awake with asthma symptoms
- Fewer missed days of work or school
- More potential to take part in physical activities
- Fewer emergency room visits

Managing asthma can mean not having to stop or avoid activities you want to do, such as a walk in the park or a game of baseball. The first step in helping to control your asthma is talking to your doctor. The next section offers tips and suggestions on how to best work with your doctor.



6. Treating Asthma

Controller and reliever medicines

During your doctor visit, you may be prescribed medicines to treat your asthma. It is important to follow instructions and take the medicine as your doctor tells you to. The medicines your doctor prescribes may be controller or reliever medicines.

Controller medicines:

- Need to be taken every day to control your asthma, whether or not you have symptoms
- Help prevent asthma symptoms before they start, so you should not need to use your rescue inhaler as often
- Help keep the swelling and mucus in your lungs under control and help stop asthma symptoms
- Can be taken as an inhaler or in tablets (see page 16 in this section for a description of inhalers)

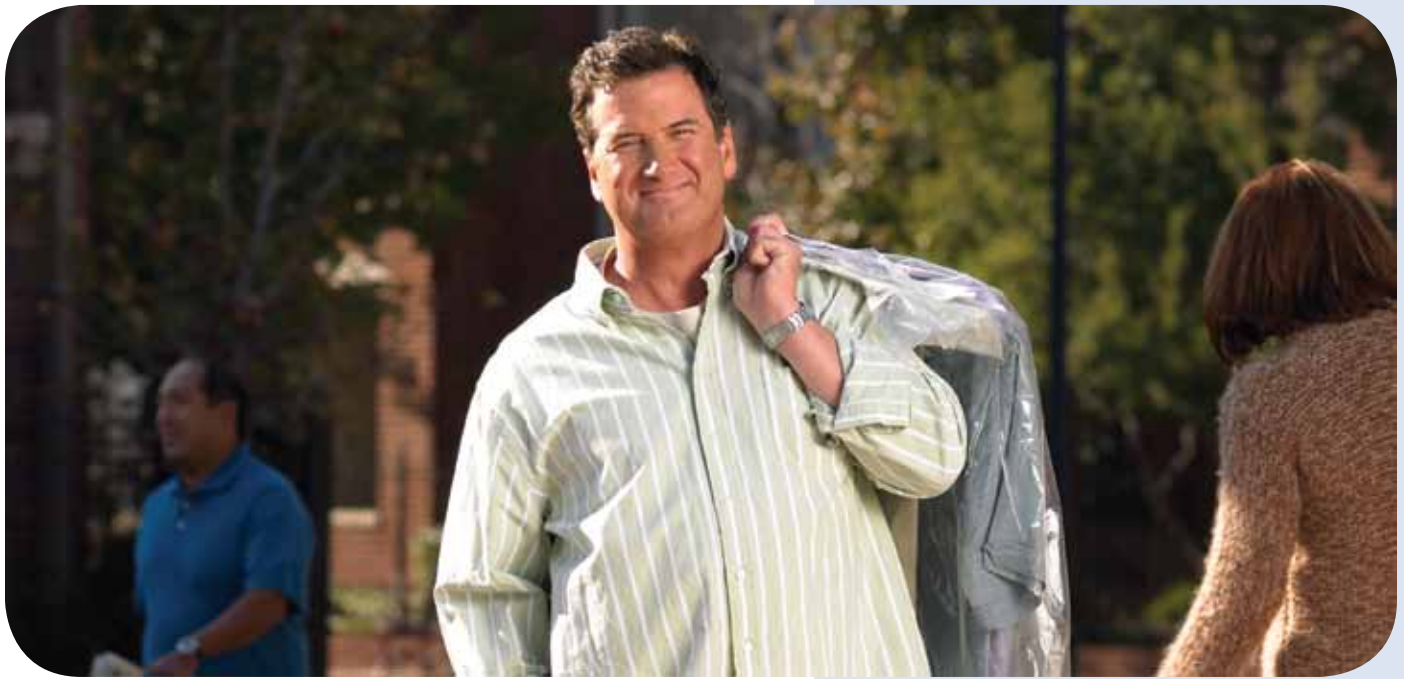
They can help prevent asthma attacks that could land you or your child in an emergency room.

Reliever medicines:

- Open your airways and help you to breathe
- Need to be taken to treat the symptoms of asthma, such as wheezing, shortness of breath, and chest tightness
- Are used to quickly relieve increased asthma symptoms
- Need to be kept with you wherever you are, at all times

When you have symptoms of asthma, you should take your reliever medicine as prescribed by your doctor. Your doctor will instruct you on how to use your medicines and when to seek emergency care. (See an Asthma Action Plan you can complete with your doctor in the back pocket of the folder.) If you don't get relief after taking your reliever medicine, you may need to seek emergency care. Also be sure to check with your doctor or pharmacist if you have any questions about your medicines.

Treating asthma may not only mean different types of medicines, it also can include different ways of taking medicine. There are 2 devices to get medicine directly into your lungs. They are called **inhalers** and **nebulizers**, and your doctor can decide which one works best for you. Here is a short description of each.



About inhalers

Metered dose inhalers (MDIs) are small aerosol canisters that can spray medicine into your lungs when you take slow, deep breaths.

Dry powder inhalers (DPIs) don't spray your medicine. You have to inhale your medicine in a powder form with a short quick breath.

Nebulizers—an option for young children

A nebulizer is an electric- or battery-powered air compressor. It contains the same medicine as an inhaler, but delivers it in a totally different way. It works by turning your liquid asthma medicine into a fine mist or fog that you breathe into your lungs through a mouthpiece or mask.

Doctors may choose nebulizers for patients who are either too young or too ill to breathe deeply, or who cannot use an inhaler correctly. There are 2 types of nebulizers:

- **Portable nebulizers** are small and can fit neatly into your bag. They can be plugged into an electric outlet or run on batteries.
- **Table-top nebulizers** are larger and need to be plugged into an electric outlet.

Talk to your doctor to learn if you or your child should use a nebulizer.

7. Partnering With Your Doctor

The first step in taking control of your asthma is talking with your doctor. Just as in any partnership, you and your doctor each have a role.



Your doctor can help by:

- Making a plan to help you reach your asthma treatment goals
- Giving you information about the medicines that have been prescribed
- Having clear and simple answers to your questions

You can help your doctor by:

- Being sure you understand your doctor's plan for managing and treating your asthma, asking questions if you need to
- Taking all medicines as directed by your doctor
- Keeping your doctor informed about your condition

Talking is the key to a better partnership with your doctor

Being involved and asking questions can help your doctor create an asthma treatment plan that works for your needs. Here are a few tips to help you get the most from your visit:

- **Tell** your doctor what you expect from your asthma treatment plan. If asthma symptoms are getting in the way of things you like to do, share examples with your doctor.
- **Describe** your symptoms as openly and honestly as you can. Let your doctor know when asthma symptoms start, how often they happen, and if they're getting worse. It often helps to write this down and give it to your doctor.
- **Ask** questions if you're not clear about something. Make sure you understand how to take the medicines your doctor has prescribed.

The whole point of setting asthma treatment goals is to measure your progress to see what's working and what's not. That's why it's best to give your doctor regular updates on how you're doing. The tools in the next section can help you and your doctor create the right plan for you and make it easier for you to follow your plan and keep your asthma symptoms under control.



8. Asthma Management Tools

Create your Asthma Action Plan

Taking your asthma medicine regularly and decreasing exposure to asthma triggers can help prevent a flare-up. But it's not always easy. That's why you need to sit down with your doctor to create an Asthma Action Plan.

Your plan will help you deal with a flare-up if one happens and should outline what you need to do:

1. When a mild to moderate asthma attack begins
2. If there's no improvement after you act
3. If the attack becomes severe and does not get better

Once you have your plan, follow it

When you've put your plan on paper, always keep a copy with you. Then, if you have a flare-up, you can quickly see what you need to do—and do it. That way you will not have to depend on remembering what your doctor told you.

Don't have a plan yet?

Use the Asthma Action Plan worksheet in the folder pocket. Be sure to ask your doctor any questions you have about your plan.

Take the Asthma Therapy Assessment Questionnaire (ATAQ)

How do you know if your asthma is under control? It's simple. Complete the ATAQ that we've provided with this brochure. Discuss the results with your doctor. It will help you find out if your or your child's asthma is under control.





9. Learn More About Managing Your Asthma

If you'd like more information about asthma and how to manage it, check out the links below:

American Lung Association
800-LUNGUSA (800-586-4872)
lungusa.org

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

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

American Academy of Allergy Asthma & Immunology
414-272-6071
aaaai.org

American College of Allergy, Asthma & Immunology
847-427-1200
acaai.org

Asthmyths (Merck-sponsored Web site)
asthmyths.com

Asthma Therapy Assessment Questionnaire (Merck-sponsored Web site)
asthmacontrolcheck.com

Glossary

Allergen:	A substance that can trigger asthma symptoms. Also known as triggers, these include animal dander, dust mites, mold, pollen, and smoke.
Asthma:	A chronic disease that affects the airways of the lungs, causing them to become swollen and irritated, making it hard to breathe.
Asthma Action Plan:	A plan that tells you what you need to do when a flare-up happens.
Asthma symptoms:	These vary from person to person. The most common asthma symptoms are coughing, wheezing, chest tightness, and shortness of breath.
Controller medicines:	These need to be taken every day to control your asthma, whether or not you have symptoms.
Inhalers:	These small, handheld devices are used to spray or puff medicine down into your lungs.
Nebulizers:	These devices turn your medicine into a fine mist that you breathe into your lungs using a mouthpiece or mask.
Peak flow meter:	This handheld device measures how fast you can blow air out of your lungs. The greater the force, the better your lungs are working.
Pulmonary function tests:	A series of tests that can measure the capacity and function of your lungs.
Reliever medicines:	These are used to quickly open your airways and help you breathe, and relieve increased asthma symptoms.

Notes

Use the space below to write notes as you're reading this brochure and to write questions to ask the doctor at your next appointment.

Look inside for
facts, tips, and tools
to help manage living
with asthma.



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