

Asthma: A Self-Care Guide

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Made in the USA.

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Notes

Making a checklist of important items, and asking questions, will help you prepare for your future. Write down things you need to remember. Use a separate sheet to list your medications if you need more room. Be sure to update your medication list regularly, and keep it with you at all times.

Things to Remember:

- Health insurance number _____
- My primary physician _____
- My physician's phone number _____
- Asthma care manager's name _____
- Pulmonologist's phone number _____
- Allergist's phone number _____
- Pharmacy name and number _____
- Emergency contact number _____
- Follow-up visit date/time _____
- Medications I'm taking

Write Down Your Questions

Don't be afraid to ask questions or take notes when talking to your healthcare team. It will make things easier for you and your family. Your healthcare team will answer any questions you may have. You may write down your questions in the space below. Leave room for the answers.

Using This Workbook

As you take steps to control asthma, use this workbook as a guide. You may need to focus on some topics and tools more than others. Go at your own pace, and refer to the workbook as needed. Topics covered include:

- Avoiding or controlling asthma triggers
- Understanding your medications, when to take them, and why
- Monitoring your asthma control
- Developing an action plan so you know what to do when you have symptoms
- Exercising and improving your overall health

Note: The back of this workbook can be used to teach children about managing their asthma in a fun, interactive way.

My Goals



Having goals gives you something to shoot for. It also helps you know whether treatment is solving problems in your life caused by asthma. Check off the goals that apply to you. Write others below. Keep your goals in mind as you use this book.

I want to:

- | | |
|---|---|
| <input type="checkbox"/> Miss fewer school or work days. | <input type="checkbox"/> Feel better all or most days. |
| <input type="checkbox"/> Take part in sports and other activities without having asthma symptoms. | <input type="checkbox"/> Prevent flare-ups. |
| <input type="checkbox"/> Sleep well. | <input type="checkbox"/> Understand what to do when I have a flare-up. |
| <input type="checkbox"/> Not have flare-ups that send me to the emergency room. | <input type="checkbox"/> Not feel that asthma controls my life. |
| <input type="checkbox"/> Not have my parents, spouse, or friends worry about me. | <input type="checkbox"/> Be able to travel or go on vacation without asthma getting in the way. |
| | <input type="checkbox"/> Not feel that asthma makes me different. |

When my asthma is in control I will be able to:

Your Role in Controlling Your Asthma

Asthma is a very common condition. In fact, more than 22 million Americans, 6 million of whom are children, have asthma. No one knows exactly why people get asthma. It is not contagious, but lots of people have it. In fact, it's the most common reason children miss school. And if you have asthma, it can make school, work, sports and even play harder for you. With the help of this workbook and a healthcare member, you can make a plan to keep your asthma under control. You can use it to learn more about this condition and how it affects you. It can help you work with your healthcare providers to find a treatment plan that meets your needs. And it can help you keep a positive outlook: You can control asthma! This will take effort on your part. But the results are worth it.



Working with Your Healthcare Team

The job of controlling asthma is mostly up to you. Your healthcare team can provide you with the tools you need. You may work with some or all of the professionals below.

- Your **primary care provider** guides your overall care and treatment. If needed, he or she can also refer you to asthma specialists.
- **Respiratory therapists** administer lung function tests and breathing treatments. They often teach patients about lung function and asthma.
- **Nurses and health educators** teach about tools and methods for controlling asthma.
- Specialists, such as an **allergist** or a **pulmonologist**, help evaluate your asthma and adjust treatment to get better control.
- An **asthma care manager** coordinates your care to help the members of your team work together.

Your Diagnosis and Evaluation

You've probably already had an evaluation. Most likely this included questions about your symptoms, triggers, and any family history of asthma or allergies. You may also have had a physical exam and lung function tests. This information helps your healthcare provider learn more about your health and design a treatment plan.

What Is Asthma?

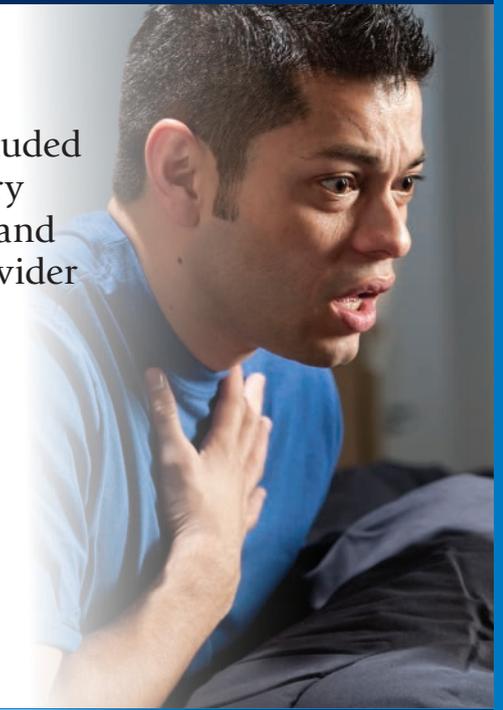
Asthma is a condition that makes the airways in your lungs inflamed (red and swollen). When this happens, your airways become narrowed. You may have symptoms such as shortness of breath, coughing, chest tightness, and wheezing. But airways can be inflamed even when you feel fine. If the airways become so narrowed that you have trouble breathing, it's called an asthma flare-up (or "asthma attack"). Flare-ups can occur at any time—even when you're asleep.

You can get asthma at any age, and it tends to run in families. Lots of people who have allergies also have asthma.

How long does asthma last?

The bad news is that asthma is a "chronic" condition—once you have it you'll always have it. Asthma doesn't go away like a cold or the flu.

The good news is that having asthma doesn't mean breathing always has to be hard for you. You can learn to control asthma and, when you do, you can do anything any other adult or child can do!



Lung Function Tests

Lung function tests help measure how well your lungs are working. One common test involves blowing into a **spirometer**. This device measures the amount of air you breathe out (exhale). It also measures how long it takes for you to exhale completely. To diagnose asthma, spirometry and other tests are done before and after you take certain medications. If your lung function improves with medication, this indicates asthma. These tests are also used to find out whether your asthma gets worse with exercise. Over time, lung function tests can help you and your healthcare providers see how well your treatment is working.

Words You May Hear

Lung function tests measure how much air you can exhale, and how quickly. There are several types of lung function graphs that show data from the tests. Some of the things that tests measure include:

- **FVC** (forced vital capacity). This is the total amount of air you can exhale in a single, prolonged breath.
- **FEV₁** (forced expiratory volume in one second). This is the amount of air you exhale in the first second. FEV₁ is often expressed as a percentage of FVC.
- **FEV₁/FVC**. This is the amount of air exhaled in the first second compared to the total amount of air exhaled. It's given as a ratio (fraction) or a percentage. In general, the higher the FEV₁/FVC, the better.
- **PEF** (peak expiratory flow). This is a measure of how fast you can exhale. It can be tested with spirometry or a peak flow meter.

Learning About Your Lungs

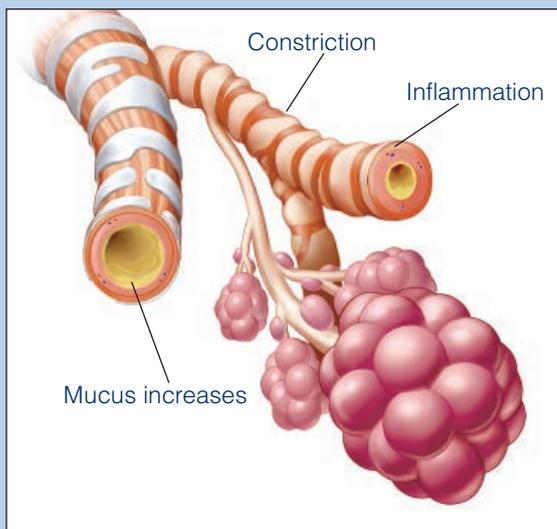
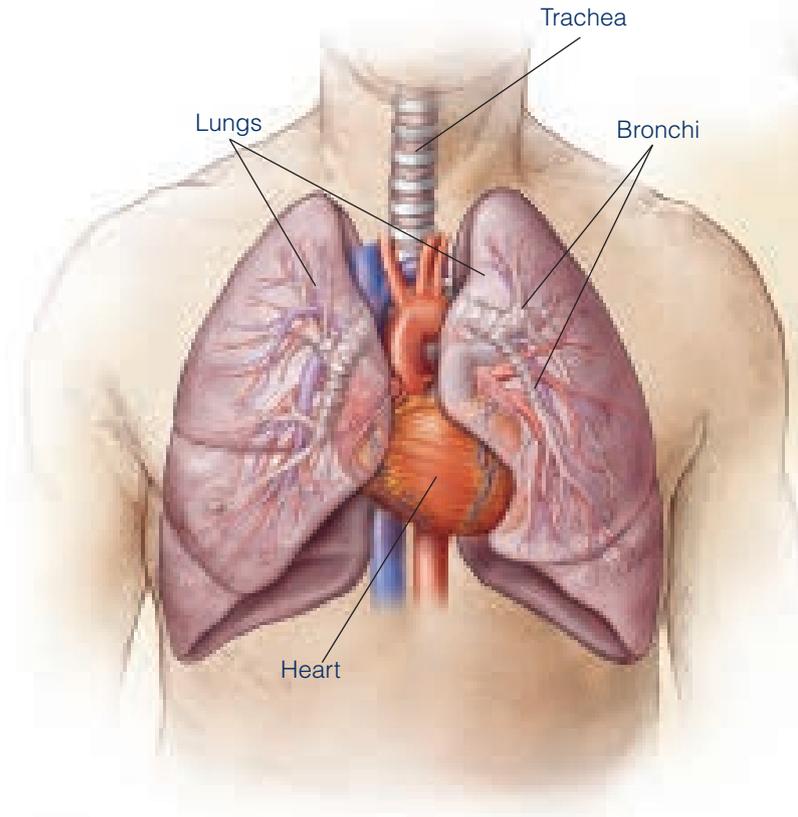
When your lungs are healthy, you breathe without effort. When you breathe in, oxygen-rich air flows into your lungs. When you breathe out, oxygen-poor air flows out steadily—without you having to think about it. Asthma narrows the airways within the lungs. When this happens, getting air out and in becomes a problem.

Healthy Lungs

Inside the lungs there are branching **airways** made of stretchy tissue. Each airway is wrapped with bands of muscle. The airways get smaller as they go deeper into the lungs. The smallest airways end in clusters of tiny balloonlike **air sacs** (alveoli). These clusters are surrounded by blood vessels.

When You Breathe

When you **inhale** (breathe in oxygen-rich air), air enters the lungs. It travels down through the airways until it reaches the air sacs. When you **exhale** (breathe out oxygen-poor air), air travels up through the airways and out of the lungs. The airways produce mucus that traps particles you breathe in. Normally, the mucus is then swept out of the lungs to be swallowed or coughed up.



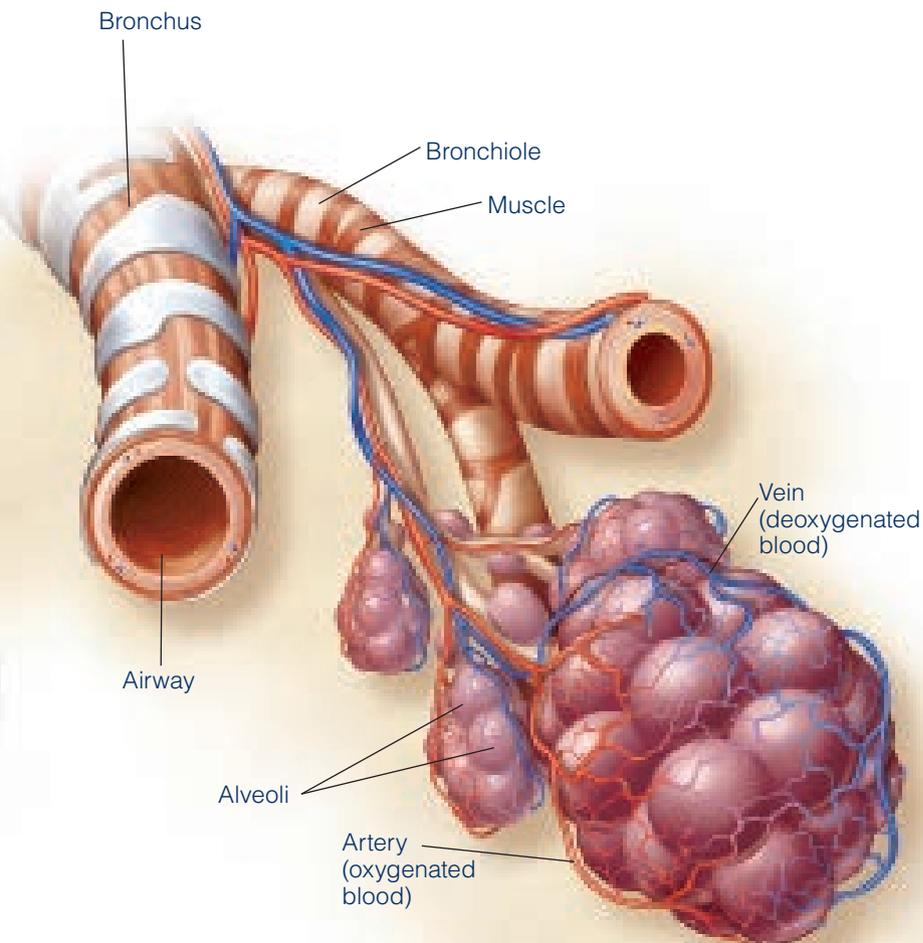
Chronic inflammation makes airways more sensitive to triggers.

When You Have Asthma: Chronic Inflammation

When you have asthma, your airways are more sensitive than those of other people. This means your airways react to certain things called **triggers** (see page 10) and become inflamed. Inflammation makes the airways swollen and narrowed. This is a **chronic** (long-lasting or recurring) problem. The airways may not be narrowed enough for you to notice breathing problems. But the inflammation makes the lungs more sensitive: Inflamed airways react to triggers even more easily, causing a flare-up.

What the Lungs Do

The air you **inhale** contains **oxygen**, a gas your body needs. When this air reaches the air sacs, oxygen passes into the blood vessels surrounding the sacs. Oxygen-rich blood then leaves the lungs and travels to all parts of the body. As the body uses oxygen, **carbon dioxide** (oxygen-poor waste gas) is produced. The blood carries this back to the lungs. Carbon dioxide leaves the body with the air you **exhale**. The process of getting oxygen into the body and carbon dioxide out is called **gas exchange**.



Symptoms

How do you know it's asthma? You may not notice any symptoms. Doctors look for the following signs (symptoms) if they think you have asthma instead of a cold or other lung problems. Here are some common asthma symptoms:

- A cough that lasts longer than a week or that wakes you up at night
- Chest tightness or throat discomfort
- Shortness of breath or trouble breathing out all the way
- Wheezing (a whistling noise, especially when breathing out)
- Low energy

Effects of Chronic Inflammation

Over time, chronic mild inflammation can lead to permanent scarring of airways and loss of lung function. This can cause permanent breathing problems. This is one reason asthma needs to be treated even if there are no symptoms.

Asthma Flare-Ups

You know how an asthma flare-up feels. But what causes it? A flare-up occurs when sensitive airways react to a trigger. This leads to swelling and tightening of airways. It becomes difficult to empty the lungs. This makes it harder to pull fresh air in. So the vital process of getting oxygen into the bloodstream is impaired.

When You Have Asthma: Moderate Flare-Ups

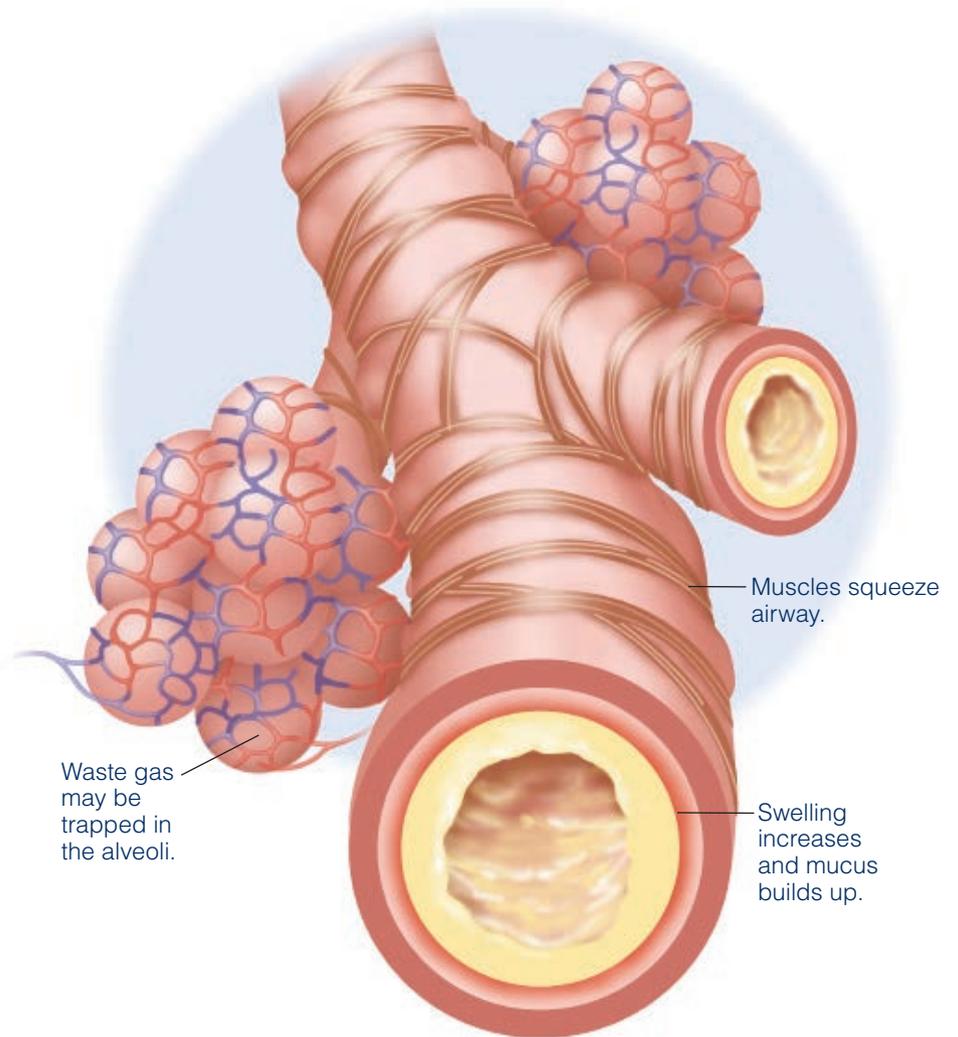
When sensitive airways are irritated by a trigger, the muscles around the airways tighten (bronchospasm). This squeezes the airways so that they become narrower. The lining of the airways swells. Thick, sticky mucus increases and begins to clog the airways. All of this decreases lung function and makes you have to work hard to get oxygen into the lungs.

Symptoms

- Coughing, especially at night
- Getting tired or out of breath easily
- Wheezing (a whistling noise, especially when breathing out)
- Chest tightness
- Fast breathing when at rest

Other Symptoms

- Itchy, watery, or glassy eyes
- Sinus congestion, runny nose, sneezing, itchy or sore throat, or dry mouth
- Throat tightness or choking sensation
- Fever or headache
- Change in behavior and/or activity level
- Clammy skin, change in face color, or dark circles under the eyes
- Change in appetite



During a moderate flare-up, the muscles tighten and squeeze the airway. Along with swelling and mucus, this narrows the airway.

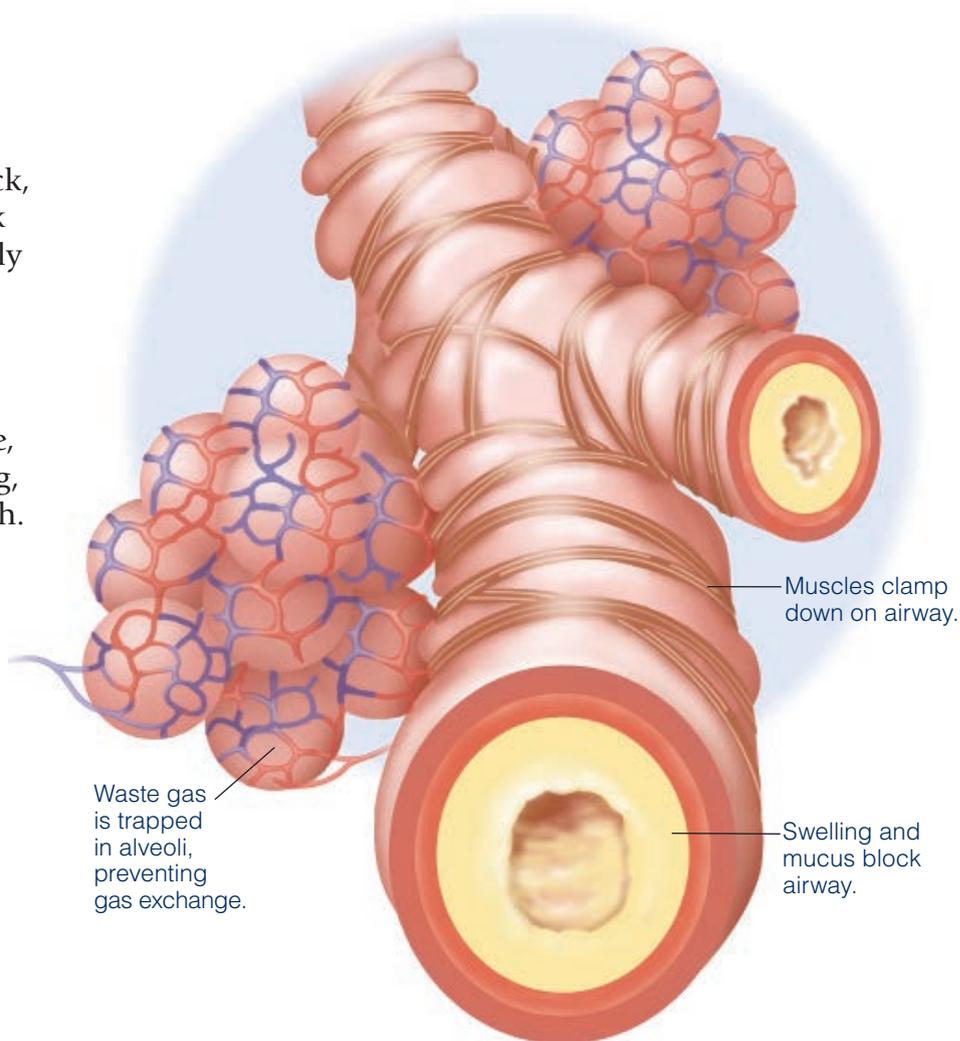
When You Have Asthma: Severe Flare-Ups

A life-threatening flare-up is due to severe muscle spasm, severe swelling, and large amounts of thick, sticky mucus. Together, these block the airway. Lung function is severely decreased. Waste gas is trapped in the alveoli, and gas exchange can't occur. The body is not getting enough oxygen. Without oxygen, body tissues, especially brain tissue, begin to die. If this goes on for long, it can lead to brain damage or death.

Symptoms

Call 911, or have someone call for you, if you have any of these symptoms:

- Severe difficulty breathing
- Being too short of breath to speak a full sentence or walk across a room
- Lips or fingers turning blue
- Feeling as though you are about to pass out



The airway is blocked due to mucus, swelling, and muscle spasm.

Controlling Your Triggers

Triggers are substances or conditions that trigger your asthma. Some triggers you can avoid completely. Others you can anticipate and adjust to. Use this section of the workbook to help you identify and control your triggers.

What Are Triggers?

Triggers irritate your lungs and lead to flare-ups. They include:

- **Irritants**, such as tobacco smoke or air pollutants. These are a concern for all people with asthma.
- **Allergens** (substances that cause allergies). If you have allergies, being exposed to your allergens can trigger a flare-up.
- **Special conditions**, such as being ill with a cold or the flu, or certain kinds of weather. These differ from person to person.
- **Exercise**. This can trigger asthma in some people. But it's the one trigger you don't want to avoid! If you have exercise-induced asthma, you can learn ways to exercise safely.



If You Have Allergies

People with asthma often have allergies. An allergic reaction can trigger a flare-up. If you have allergies, or suspect you have them, talk with your healthcare provider about testing and treatment options. Testing can often show what you need to avoid, and can open the door to possible treatments.

Allergy Testing

Allergy testing can determine exactly which allergens affect you. Types of tests include:

- **Skin tests**. A small amount of each allergen is applied to the skin. Sites are then examined for an allergic reaction (redness, swelling, or itching). In general, the greater the reaction, the stronger the allergy.
- **Blood tests**. An allergen is added to a blood sample. If allergy antibodies develop to attack the allergen, it shows sensitivity to the allergen.

Allergy Shots (Immunotherapy)

Exposing a person to gradually increasing amounts of an allergen can help the body build up a tolerance. This is the purpose of immunotherapy. For this therapy, injections are given over a period of 3 to 5 years. At first, injections containing a very small amount of allergen are given about once a week. As treatment continues, the amount of allergen is gradually increased to a maintenance level. Eventually, injections are given less often. This therapy can take up to a year to start working, but can be very effective for long-term management of certain allergies.

What Are Your Asthma Triggers?



Some triggers are common to most people with asthma. Others affect only some people. Which of these common triggers cause you problems? Check all that apply. The page number points you to tips for controlling each trigger.

Irritants

These are problems for almost everyone:



Page 12

- Tobacco smoke
- Smoke from fireplaces



Page 12

- Vehicle exhaust
- Smog



Page 13

- Aerosol sprays
- Other air pollutants
- Strong odors, such as perfume, incense, or cooking odors
- Household cleaners, such as ammonia or bleach

Allergens

These are triggers only if you are allergic to them:



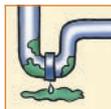
Page 14

- Dust mites



Page 14

- Cats
- Dogs
- Other furry animals
- Birds



Page 15

- Mold



Page 15

- Pollen



Page 15

- Cockroaches

Other Triggers

These vary from person to person:



Page 16

- Cold air
- Hot air
- Weather changes



Page 16

- Illness, such as colds, flu, and sinus infections



Page 16

- Certain food additives, such as sulfites used in wine, beer, and dried fruit



Page 17

- Certain over-the-counter and prescription medications



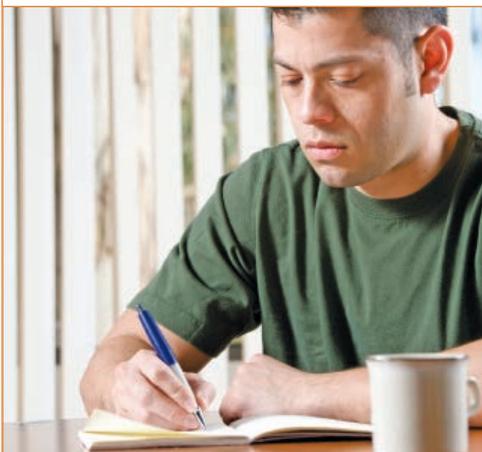
Page 17

- Emotions, such as laughing, crying, or feeling stressed



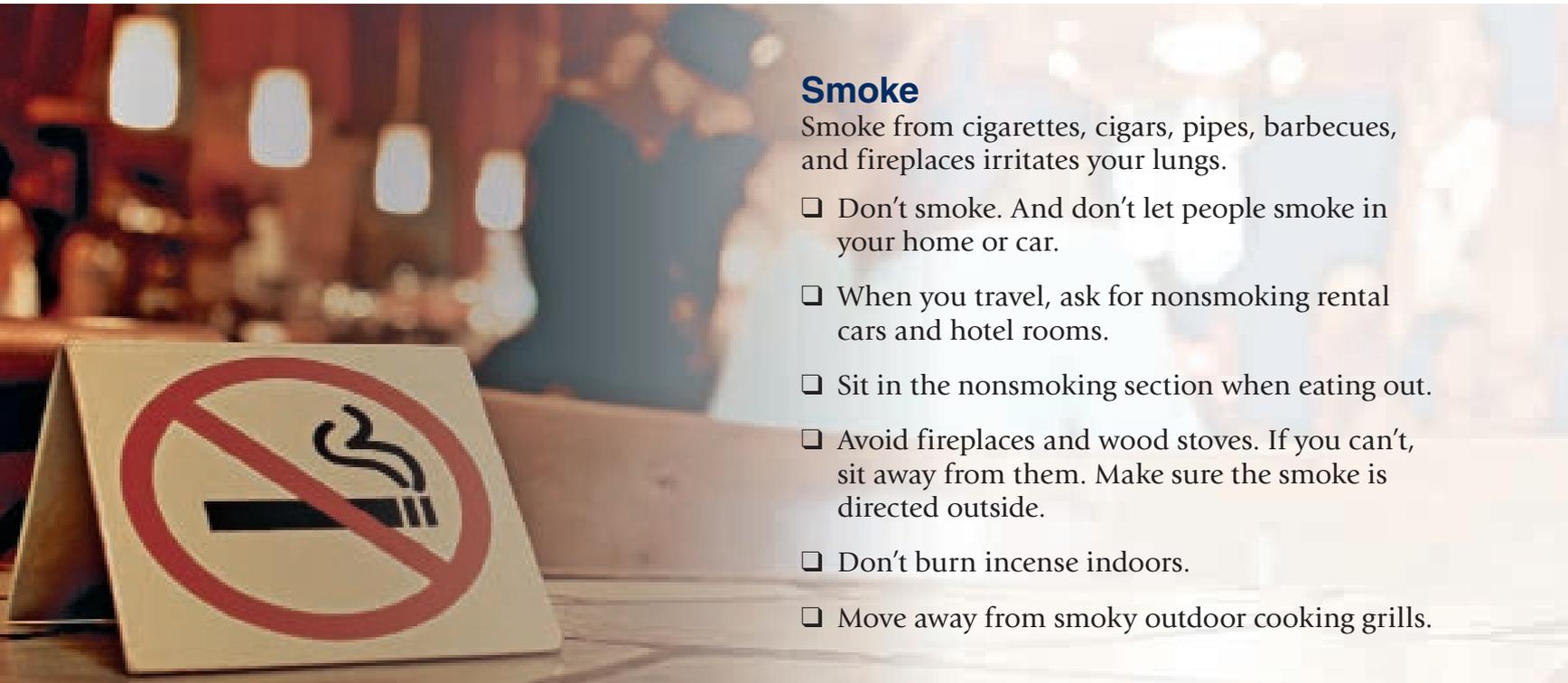
page 17

- Exercise



Controlling Your Triggers: Irritants

Irritants (air pollutants) are common asthma triggers. Anybody who has asthma needs to watch for these. But there's more to air pollution than smoke and car exhaust. These two pages can help you identify which irritants are likely to affect you. The tips can help you avoid them. Check off the tips that are most useful for you.



Smoke

Smoke from cigarettes, cigars, pipes, barbecues, and fireplaces irritates your lungs.

- Don't smoke. And don't let people smoke in your home or car.
- When you travel, ask for nonsmoking rental cars and hotel rooms.
- Sit in the nonsmoking section when eating out.
- Avoid fireplaces and wood stoves. If you can't, sit away from them. Make sure the smoke is directed outside.
- Don't burn incense indoors.
- Move away from smoky outdoor cooking grills.

Smog

Vehicle exhaust and other air pollutants combine to create smog. This can be a trigger for flare-ups.

- Read or listen to local air quality reports. These let you know when air quality is poor.
- Stay indoors as much as you can on smoggy days. If possible, use air conditioning instead of opening the windows.
- In your car, set air conditioning to recirculate air, so less pollution gets in.



Strong Odors

Strong odors from items such as room fresheners, perfume, mothballs, incense, deodorizers, and insect sprays can trigger asthma symptoms.

- Use scent-free products, such as scent-free deodorant and lotion.
- Avoid using bleach and ammonia for cleaning. Instead, make a cleaning solution by mixing water with white vinegar or baking soda.
- Use exhaust fans while cooking. This helps reduce odors.
- Store clothes in boxes with lids. Don't use mothballs or cedar chips.
- Avoid perfumes, air fresheners, potpourri, and other scented products.

Other Irritants

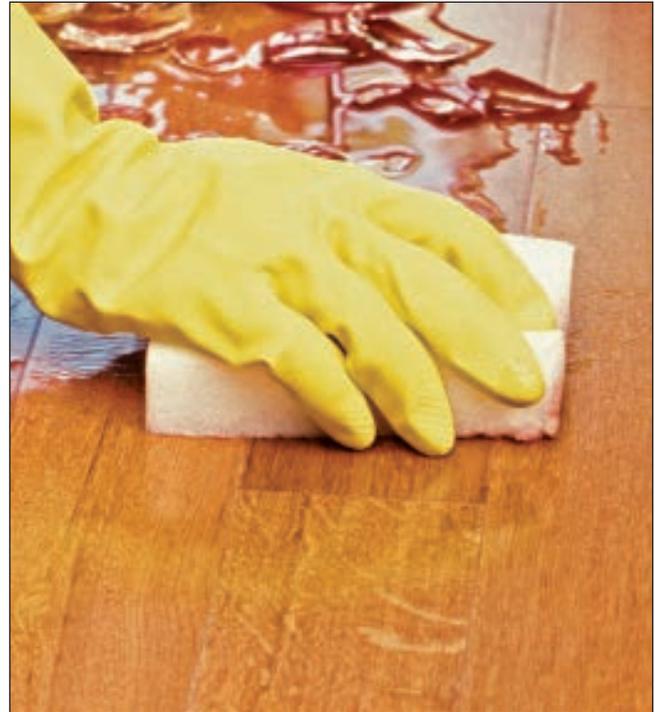
Dust, aerosol sprays, and fine powders can irritate your lungs.

- Wear a mask while doing tasks like sanding, dusting, sweeping, and yardwork.
- Ask your doctor about HEPA filters for your vacuum and air conditioner.
- Use pump spray bottles instead of aerosol cans when possible. Make sure your work areas are well ventilated.
- Pour liquid cleaners instead of spraying them.

Write in other ideas or special instructions here:

Note

Carry your quick-relief medication with you at all times. If you can't avoid an area with irritants, watch for symptoms. If you have symptoms, leave the area and use your quick relief inhaler as directed.



CAUTION

Caution! Studies show that most deaths related to asthma symptoms such as wheezing occur at night. Nocturnal (or nighttime) asthma is very serious. Meet with your doctor to talk about a treatment plan.

Controlling Your Triggers: Allergens

For many people with asthma, inhaling allergens leads to inflamed airways. To help stop problems before they start, do your best to avoid allergens that trigger your asthma. The tips below reduce your exposure to allergens. Don't try all the tips at once. Check off a few from the lists below, and start with those.

Dust Mites

Dust mites are tiny bugs too small to see or feel. But they can be a major trigger for asthma symptoms. Dust mites live in mattresses, bedding, carpets, curtains, and indoor dust. They thrive in warm, moist environments.

- Wash bedding in hot water (130°F) each week. This kills the dust mites.
- Cover mattress and pillows with special dust-mite-proof cases called hypoallergenic casings.
- Don't use upholstered furniture in the bedroom.
- Use allergy-proof filters for air conditioners and furnaces. Follow manufacturer instructions for maintaining and replacing filters.
- If you can, replace wall-to-wall carpets with wood, tile, or linoleum floors—especially in the bedroom.

Animals

Animals with fur or feathers often produce allergens. These are shed as tiny particles called dander. Dander can float through the air or stick to carpet, clothing, and household furniture.

- It's best to choose a pet that doesn't have fur or feathers, such as a fish or a reptile.
- Keep pets with fur or feathers out of your home. If you can't do this, be sure to keep them out of your bedroom.
- Wash your hands and clothes after handling pets.



Mold

Mold grows in damp places, such as bathrooms, basements, and closets.

- ❑ Clean damp areas weekly to prevent mold growth. This includes shower stalls and sinks.
- ❑ Run an exhaust fan while bathing. Or, leave a window open in the bathroom.
- ❑ Repair water leaks in or around your home.
- ❑ Have someone else cut grass or rake leaves, if possible.
- ❑ Don't use vaporizers, humidifiers, or evaporative (swamp) coolers. These put water into the air and encourage mold growth.

Pollen

Pollen from trees, grasses, and weeds is a common allergen.

- ❑ Try to learn what types of pollen affect you most. Pollen levels vary depending on the plant, the season, and the time of day.
- ❑ Use air conditioning instead of opening the windows in your home or car. Set the dial to recirculate the air, so less pollen gets in.
- ❑ Have someone else do yardwork, if possible.

Cockroaches

Cockroaches are a common household pest. They also produce allergens.

- ❑ Keep your kitchen clean and dry. A leaky faucet or drain can attract roaches.
- ❑ Remove garbage from your home daily.
- ❑ Store food in tightly sealed containers. Wash dishes promptly.
- ❑ Use bait stations or traps to control roaches. Avoid using chemical sprays.



Controlling Your Other Triggers

You may find there are other things that trigger your asthma. These include weather changes, illness, exercise, and other conditions or situations. If any of these trigger asthma symptoms, check off the tips below that can help. Then give the tips a try.

Weather

Certain types of weather can trigger asthma or contribute to other triggers such as allergies. Of course you can't control the weather! But you can take more care at times when weather may be an issue.

- Keep track of which types of weather affect you most. This could be cold, hot, or humid weather, wind, or dust storms.
- Limit outdoor activity during the type of weather that affects you.
- Protect your lungs by wearing a scarf over your mouth and nose in cold weather.

Colds, Flu, and Sinus Infections

Illnesses that affect the nose and throat (upper respiratory infections) can irritate your lungs. You can't prevent all illness, but you may be able to prevent some:

- Wash your hands often with soap and warm water or use a hand sanitizer.
- Get a yearly flu shot.
- Take care of your general health. Get plenty of sleep—and make healthy food choices.

Acid Reflux

Acid reflux (when stomach acid backs up into the esophagus) can cause asthma flare-ups. To prevent this:

- Eat small meals and eat more often.
- Talk to your doctor about using acid reflux medication.

Food Additives and Food Allergies

Food additives can trigger asthma flare-ups in some people. Check food labels for "sulfites," "metabisulfites," and "sulfur dioxide." These are often found in foods such as wine, beer, and dried fruit. Avoid foods that contain these additives. Also avoid any foods you are allergic to, such as nuts or eggs. Allergic reactions can trigger asthma flare-ups.



Medications

Certain medications cause symptoms in some people with asthma. These include aspirin and aspirin-like products such as ibuprofen and naproxen. They also include certain prescribed medicines such as some beta-blockers.

- ❑ Tell your healthcare provider if you suspect that certain medications trigger symptoms. Ask for a list of products that contain those medications.
- ❑ Check the labels on over-the-counter medicines. Medicines for colds and sinus problems often contain aspirin or aspirin-like ingredients.



Emotions

Laughing, crying, or feeling excited or stressed are triggers for some people. You can't avoid these normal emotions, but you can learn ways to slow your breathing and avert a flare-up.

- ❑ Try this breathing exercise: Start by breathing in slowly through your nose for a count of 2 seconds. Then pucker your lips and breathe out for a count of 4 seconds.
- ❑ Try to focus on a soothing image in your mind. This will help relax you and calm your breathing.
- ❑ Remember to take your daily controller medications. When you're upset or under stress, it's easy to forget.



Exercise

For some people, exercise can trigger asthma symptoms. This is called exercise-induced asthma. Don't let exercise-induced asthma keep you from being active. If your asthma is in control, you should be able to exercise without triggering symptoms. These tips (and your doctor's advice) can help:

- ❑ Take quick-relief medication a few minutes before exercise, as prescribed.
- ❑ Always carry your quick-relief inhaler with you when you exercise.
- ❑ Stop and follow your action plan if you notice asthma symptoms.

See pages 28 to 29 for more tips on exercise.



Asthma Medications

Medications play a key role in controlling asthma. Some medications help reduce chronic inflammation. Others are used to treat symptoms when they occur. This workbook section will help you learn to use your medications the right way so you get the right kind of help. You'll also learn tips for using your inhaler correctly.



Taking Medications

Medications are one of your most important tools for controlling asthma. Always take your medications as prescribed. Know the names of your medications and how and when to use them.

Long-Term Control Medications

Long-term control (also called “maintenance” or controller) medications help reduce swelling and inflammation of the airways. This makes the airways less sensitive to triggers and less likely to flare up. These medications:

- Are taken on a schedule—for most people, every day. They are taken even when you feel fine.
- Help keep asthma under control so you're less likely to have symptoms.
- Will NOT stop a flare-up once it has begun.

Quick-Relief Medications

Quick-relief (also called “rescue”) medications work by relaxing the muscles that tighten around the airways. This helps ease symptoms such as coughing, wheezing, and shortness of breath. Keep your quick-relief inhaler with you at all times—even if you feel okay. Quick-relief medications:

- Are inhaled when needed.
- Start to open the airways within a few minutes after you use them.
- Can help stop a flare-up once it has begun.
- Can help prevent flare-ups triggered by exercise.

Using Inhaled Corticosteroids

Inhaled corticosteroids are safe for long-term use. They are not the “steroids” that you hear about athletes abusing. The usual prescribed doses of corticosteroids most often cause no side effects. That's because they're inhaled directly into the lungs, where they're needed. So, they have little effect on the rest of the body. The chance of side effects can be lowered even more if you:

- Make sure you always use a spacer if using a metered dose inhaler.
- Rinse your mouth, gargle, and spit out the water after using the inhaler.
- Work with your healthcare provider to find the lowest dose that controls your asthma.

Tips for Taking Medications

Remembering to take medication each day can be hard for anyone. It can be even harder to remember when you don't have symptoms. Try these tips for keeping on track:

- Develop a routine. For example, take long-term controllers as part of getting ready for bed.
 - Make sure you understand what long-term controllers do and don't do.
 - Make sure to refill your prescriptions on time, or even ahead of time, so you don't run out.
 - Carry your quick-relief medication with you. If you can, keep a spare quick-relief inhaler at work, at school, or in your gym bag.
 - When you travel, make sure you have enough medication to last for your entire trip.
 - Use your inhaler before brushing your teeth. This helps make rinsing your mouth afterward become automatic.
 - When traveling by air, keep your medications with you, not packed in your luggage.
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-



Working with Your Healthcare Provider

By working with your healthcare provider, you can get the most benefit from your medications and reduce side effects. This helps ensure you're getting the best treatment. Don't make medication changes without talking to your healthcare provider. Issues to work on with your healthcare provider include:

- **Getting to the right dose.** Over time, your healthcare provider may raise or lower the dose of controllers. The goal is to find the amount of medication to keep asthma in control, without taking more than is needed.
- **Finding the right medications for you.** Each person is unique. It may take a few tries to find the right medication or combination of medications for you. If one medication doesn't work well for you, another may work better.
- **Minimizing side effects.** If you have side effects, don't just stop taking your medication. Instead, call your healthcare provider. A new medication or a dosage change may solve the problem—but you won't know unless you ask!

Asthma Medications*

These pages will help you learn more about the specific medications used to control asthma. Learn the names of your medications and how they work. Use them according to your action plan. And be sure to take only the medications that are prescribed for you. Keep in mind that medications are used to control asthma. They can't cure it.

Types of Medications

Long-Term Controllers (Maintenance)

For daily use

Steroidal anti-inflammatories

Name: _____

Long-acting bronchodilators

Name: _____

Other long-term controllers

Name: _____

Quick-Relief (Rescue)

For use as needed

Short-acting bronchodilators

Name: _____

Anticholinergics

Name: _____

Steroid Burst

For severe asthma
episodes

Swallowed corticosteroids

Name: _____

* This table is not a complete list of asthma medications and does not imply endorsement of any type or brand. It also does not include all actions, adverse reactions, precautions, side effects, or interactions for these medications. Only your healthcare provider can prescribe these medications. Talk to your healthcare provider or pharmacist about the possible side effects and drug or food interactions of any medication you use.

What They Do	Possible Side Effects
<ul style="list-style-type: none"> • Prevent or reduce airway inflammation. • Protect the airways from irritants and allergens. These medications use corticosteroids. They are not the same as anabolic steroids that bodybuilders may use. They also do not have the same side effects. 	<p>Hoarseness, dry mouth, thrush (yeast infection in the mouth), and headache.</p> <p>Using a spacer with your metered-dose inhaler will help prevent side effects. After inhaling, rinse your mouth with water, gargle, and spit.</p>
<ul style="list-style-type: none"> • Relax muscles that tighten around the airways. • Cannot stop a flare-up in progress (not to be used for quick relief). • Work longer, but more slowly, than short-acting bronchodilators. • Help prevent nighttime flare-ups or flare-ups caused by exercise. • Are often used along with a corticosteroid inhaler. 	<p>INHALED OR SWALLOWED: Headache, dizziness, insomnia, nervousness, nausea, muscle twitches, muscle cramps and spasms, and fast or irregular heartbeat. For swallowed medications, your blood may be monitored. This can help prevent serious side effects. Be sure your healthcare provider knows all other medications you are taking.</p>
<ul style="list-style-type: none"> • Help prevent asthma symptoms caused by exercise. • Block the asthma response to some triggers (leukotriene modifiers). • Are often used with a corticosteroid inhaler. 	<p>INHALED: Side effects are rare, but may include dry throat, nausea, and unpleasant taste.</p> <p>SWALLOWED: Headache, dizziness, nausea, and possible mood changes.</p>
<ul style="list-style-type: none"> • Relax muscles that tighten around the airways. • Help stop flare-ups once they've started. • Help prevent asthma symptoms caused by exercise. • Rescue medicine gives you quick relief. 	<p>Shakiness, nervousness, dizziness, fast or irregular heartbeat.</p> <p>If you need to use these medications more often than prescribed, talk with your healthcare team.</p>
<ul style="list-style-type: none"> • Are a type of bronchodilator that may be added to a short-acting bronchodilator to stop a severe flare-up. • Relax muscles that tighten around the airways. • Takes a few minutes longer to work than other short-acting bronchodilators. 	<p>Dry mouth, headache, and blurred vision. Avoid getting it in your eyes.</p>
<ul style="list-style-type: none"> • Are used for flare-ups or severe asthma episodes. • Are taken in addition to controller and quick-relief medications. • Help reduce swelling and mucus production in airways. • Are usually prescribed for short courses of 3 to 10 days. • Are used in rare cases as long-term therapy to control severe asthma. 	<p>Short courses generally have few side effects. If these medications are used for a long time, more serious side effects may occur. These include acne, increased appetite, weight gain, mood changes, high blood pressure, fluid retention, bruising, sleep problems, and stomach, eye, or bone problems.</p>

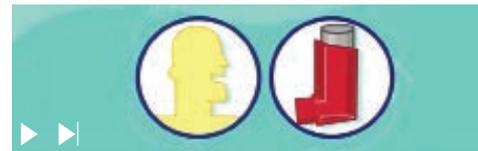
Using Inhalers

To control asthma, you need to use your medications the right way. Some medications are inhaled using a device called an inhaler. The inhaler helps you take a measured dose of medication into your lungs. These pages give tips for using common types of inhalers. But not all inhalers work the same way. If you're given a type not shown here, ask your healthcare team for help in learning to use it. Note: Be sure to rinse your mouth after using any type of inhaler. This helps prevent aftertaste, dry mouth, and mouth infections.

Using Metered-Dose Inhalers (MDIs) with Spacers

Metered-dose inhalers use a fine spray to dispense medication. You may be asked to use a spacer (holding tube) with your inhaler. The spacer helps make sure all the medication you need goes into your lungs.

- 1 Remove the caps from the inhaler and spacer. Shake the inhaler well and attach the spacer.
- 2 Breathe out normally. Put the spacer between your teeth and close your lips tightly around it. Keep your chin up.
- 3 Spray 1 puff into the spacer by pressing down on the inhaler. Then slowly breathe in as deeply as you can. This should take 3 to 5 seconds. (If you breathe too quickly, you may hear a whistling sound in the spacer.)
- 4 Take the spacer out of your mouth. Hold your breath for a count of 10. Then slowly breathe out. If a second dose is prescribed, wait at least a minute before taking the next puff.



www.youtube.com/watch?v=16EXHQOFUeY

Watch this video for adults with asthma to correctly use an MDI (metered-dose inhaler) with a spacer. This tutorial uses images only, in order to eliminate any potential language barrier.

Using MDIs Without Spacers

Inhalers work best with spacers. But if you don't have your spacer with you, these tips will help:

- 1 Shake the inhaler and remove the cap. Breathe out.
- 2 Hold the inhaler 1 to 2 inches from your mouth. Don't put the inhaler into your mouth. If you do, less medication is able to reach your lungs.
- 3 As you **breathe in slowly and deeply**, press down on the inhaler to release the medication. Hold your breath for a count of 10. Then breathe out slowly.



Hold the inhaler about 2 finger-widths away from your mouth.

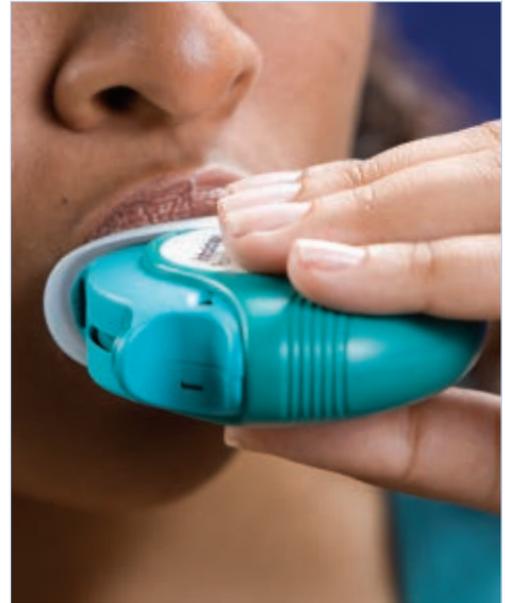
How to care for your inhaler/spacer:

- Clean the plastic mouthpiece and cap after every use. Just rinse it with warm water, wipe with a clean cloth and replace the cap.
- Wash your spacer every week with warm soapy water. Dip it in clean water to rinse—do not put it under running water—and let it air-dry.

Using Dry-Powder Inhalers (DPIs)

Some inhalers use tiny grains of powder to dispense medication. These inhalers don't require spacers. And they often have counters that track how many doses you use. Keep in mind that dry-powder inhalers don't all work the same way. So be sure you know how to use yours properly.

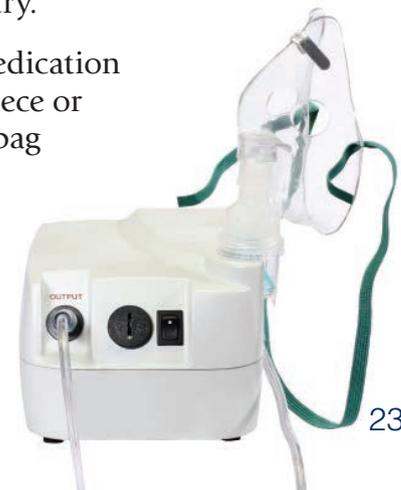
- 1 Load the prescribed dose of medication by following the instructions that come with the inhaler.
- 2 Breathe out normally, holding the inhaler away from your mouth. Hold your chin up.
- 3 Put the mouthpiece between your lips. Hold the inhaler straight out, parallel with the floor. **Breathe in quickly and deeply** through the inhaler—not through your nose. You may not feel or taste the medication as you breathe in. This is normal.
- 4 Take the mouthpiece out of your mouth. Hold your breath for a count of 10.
- 5 Breathe out slowly—but do not breathe out through the inhaler. Moisture from your breath can make the powder stick inside the inhaler.
- 6 Rinse your mouth after using the inhaler. Also, be sure to close the inhaler and store it in a dry place.



Using a Nebulizer

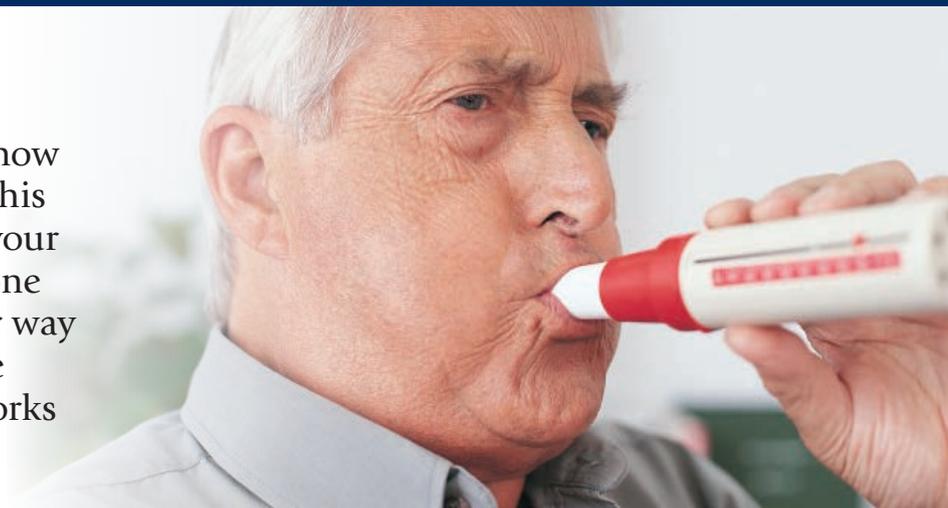
A nebulizer turns medication into a mist. You breathe the mist in through a mask or a mouthpiece. To use your nebulizer, follow the steps below.

- Put the correct dose of medication in the cup.
- Connect one end of the tubing to the cup and the other end to the machine.
- Attach the mask or mouthpiece to the cup.
- Place the mask over your nose and mouth. Make sure it fits securely and comfortably. If you are using a mouthpiece, put it between your teeth and close your lips around it. Keep your tongue below the mouthpiece. Turn on the machine.
- Take slow, deep breaths until all the medication is gone. This takes 10–15 minutes.
- When you are finished, take the nebulizer apart and rinse it in warm water. Then let it air-dry.
- Wash all nebulizer parts once a day in warm, soapy water. Rinse well and air-dry. Do not wash or rinse the hose.
- Once a week, combine 1 cup of distilled white vinegar with 3 cups of water and soak nebulizer parts for 30 minutes. Rinse the parts well and let them air-dry.
- Store the hose, medication cup, and mouthpiece or mask in a plastic bag that seals. Cover the compressor with plastic or a clean cloth.



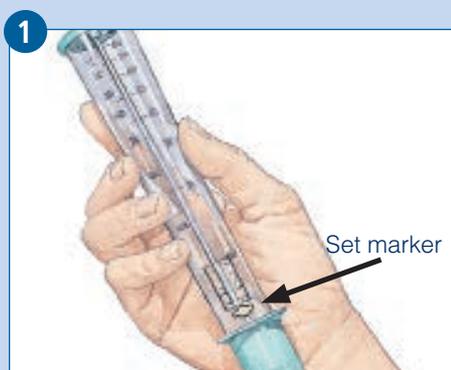
Self-Monitoring

Self-monitoring helps you determine how well your treatment plan is working. This section includes tools for monitoring your asthma. Checking your peak flow is one way to monitor your asthma. Another way is to keep track of how often you have symptoms, when or why, and what works to control them.



Using a Peak Flow Meter

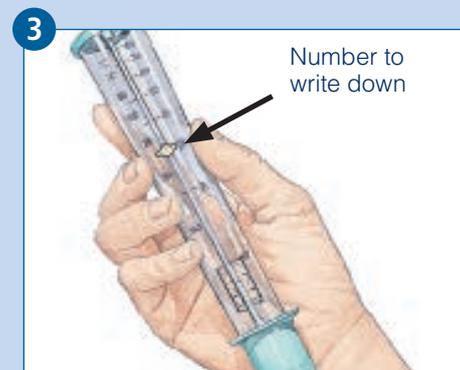
The meter measures how fast you can push air out of your lungs. It can help warn you of a flare-up, even before you have symptoms. Your healthcare team will tell you how often to monitor your breathing.



1 Move the marker to 0, or to the lowest number on the scale. Stand up. If you can't stand, sit up straight in a chair. Be sure you're in the same position each time you do this test.



2 Take as deep a breath as you can. Put the mouthpiece of the meter between your teeth. Close your lips tightly around it. Be sure your tongue does not block the opening. Blow into the mouthpiece once, as hard and as fast as you can. Then take the meter out of your mouth.



3 Check where the marker has moved to on the numbered scale. Write this number down. Move the marker back to 0. Repeat the test 2 more times. Circle the highest of the 3 numbers. This is your peak flow number.

Determining Your Personal Best

Your personal best is your highest peak flow number during 2 weeks with no symptoms. Other peak flow results are compared to the personal best. This helps show how you're doing over time. To find your personal best:

- Step 1: Keep track of peak flow numbers during a period of 2 to 3 weeks. Do this when you feel healthy and are not having any asthma symptoms.
- Step 2: Monitor at least twice a day—when you wake up and between 6 p.m. and 8 p.m., or as directed by your healthcare provider.

Asthma Symptom Diary



Keep track of symptoms with the chart below. (Make some copies first.) Show these records to your healthcare provider at your visits. As your asthma control improves, you should have fewer episodes of symptoms to record.

Date	Symptoms	Possible triggers	Action taken	Results	ER visit	Hospitalized	Missed work/school
3/3	Example: Wheezing Peak flow 75%	Cold air	2 puffs albuterol Went inside	Symptoms gone in 20 min.	No	No	No
3/5	Peak flow less than 50%	Respiratory infection	All green and red medications taken	Called doctor	Yes		

Making Treatment Work

By now, you understand the basic tools and methods for controlling asthma. The next step is to create an action plan. This is a set of clear guidelines for what to do when you have symptoms. The action plan is a key tool for controlling asthma. Once the plan is in place, you can begin to see whether it's working to control your asthma.

Why You Need to Take Control

Problems caused by asthma won't go away on their own. You need day-to-day control of the inflammation in your lungs. You also need to control symptoms when you have them. These are lifelong tasks. But the more you stay in control, the better you'll feel. If you don't stay in control:

- Asthma symptoms can affect your life. You may miss school, work, or activities that you enjoy.
- Asthma flare-ups can be dangerous, even deadly.
- Uncontrolled asthma may cause permanent damage to your lungs.

What Is an Asthma Action Plan?

Your healthcare team will help you design a personal action plan to control your asthma. It includes all the steps you need to care for yourself. This will help remind you how to manage your asthma so you can feel your best. The action plan tells you what to do when you are in each of the three asthma zones:

-  **Green = good control.** You have no asthma symptoms. Peak flow is normal or near normal. With asthma in control, you are in the green zone all or most of the time. Don't stop your routine or taking your medications when you feel good. Controlling asthma is everyday work.
-  **Yellow = caution.** Peak flow is lower or you have mild symptoms. A flare-up is beginning. Quick action may prevent or stop it. If you are often in the yellow zone, the treatment plan needs to be revised.
-  **Red = stop.** Symptoms are moderate to severe and your peak flow is very low. This is a serious flare-up. Get medical attention now! Do not go alone to the hospital or the doctor's office.

Two Questions to Ask Yourself

The questions at right can help you assess your symptoms and medication usage.

If you answer yes to either question, asthma is not well controlled. Talk to your healthcare team. If you're already following your action plan closely, you may need to adjust your medications.



- 1 Do you use your quick-relief inhaler more than **2 times a week** (other than before exercise)?

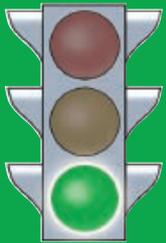


- 2 Do you wake up at night with symptoms more than **2 times a month**?

Understanding the Asthma Action Plan

An asthma action plan will be given to you by your healthcare provider with directions on how to take your medications. Please make copies and give them to the people in your daily life. These may include family members, people at school or work, daycare providers, and others.

Green Light: GO



No Symptoms

- Peak flow numbers 80–100% of personal best
- Easy breathing
- No wheezing or cough
- Sleeping well
- Can play, work, or exercise

Action Plan

- Avoid your triggers.
- Know your early warning signs.
- Use your peak flow meter twice a day. During each session, do the test three times. Write down your highest number of the three.
- Take your medication as told by your healthcare provider. Controller medications need to be taken every day, even if you are feeling fine.
- Know how many puffs are left in your inhaler.
- Follow your asthma action plan.
- Don't stop this routine when you feel good and haven't had warning signs for a while. No warning signs means that your daily asthma routine is working. Remember, asthma is a lifelong condition. Controlling it takes work every day.

Yellow Light: SLOW DOWN



Warning Signs

- Peak flow numbers 50–80% of personal best
- Shortness of breath
- Wheezing or cough
- Waking at night
- Chest tightness
- Tire easily with exercise or play
- Signs of a cold

Action Plan

- Avoid your triggers.
- Watch for more warning signs and symptoms.
- Use your peak flow meter twice a day. During each session, do the test three times. Write down your highest number of the three.
- Take your medication as directed by your healthcare provider.
- Know how many puffs are left in your inhaler.
- Take your quick relief (rescue) meds as ordered.
- Follow your asthma action plan.
- Call your doctor if you're not improving.

Red Light: STOP!



Warning Signs

- Peak flow numbers less than 50% of personal best
- Medication not helping
- Fast, hard breathing
- Trouble breathing at rest
- Constant coughing or wheezing
- Can't talk in full sentences
- Ribs show while breathing
- Skin is blue, gray, or pale
- Nasal flaring (nostrils puff out)

Action Plan

- Take your quick relief (rescue) medication as ordered.
- Ask for help! Get someone close to help call 911. Wake up family or friends if needed!
- Follow your asthma action plan.
- Do not drive yourself. Call 911.

Asthma and Exercise

Controlling your asthma will give you the freedom to take part in any sport or activity. And whether or not you have exercise-induced asthma, regular exercise can help improve your health. So don't stay on the sidelines. Some of the tips on these pages apply to everyone, with or without asthma. Other tips can help you prevent exercise from triggering symptoms.

Choosing Activities

There are many ways to be active:

- **Kids with asthma can play** baseball, basketball, soccer, or football. They can swim, run cross-country, or do gymnastics. In fact, a child with asthma can do any sport you can name. If exercise has led to asthma flare-ups in the past, you may worry. But when asthma is in good control, your child will be able to exercise without fear.
- **Aerobic activity** is exercise that gets your heart and lungs working harder. Examples include jogging, swimming, bicycling, or walking. Your exercise plan should include at least one type of aerobic activity.
- **Strength training** uses weights or resistance to build muscles.
- **General activity** includes things like gardening, playing a game of catch, or using the stairs instead of the escalator. These activities may not make you sweat, but they can help you stay in shape. Get in the habit of being active each day.

If You Have Exercise-Induced Asthma

- Swimming can be a good choice because the air is usually warm and moist and may be less likely to trigger a flare-up. Be aware, though, that chlorine fumes are a trigger for some people.
- Indoor exercise is good for days when weather could trigger symptoms. Try exercising at a gym or at home.
- Yoga stretches and strengthens muscles. It can also relax your breathing and help you feel less stressed.
- No matter what exercise you do, you may need to use your rescue inhaler before activity. Your healthcare provider will tell you if this is needed.



Asthma and Athletes

As long as your asthma is under control, there's almost no limit to what you can do. So if you're an athlete, talk with your healthcare team about a treatment plan that suits your needs. Then go for it! It may help to know that many pro athletes and Olympic gold medal winners have asthma. They can perform because their asthma is in control. The same is true for you. So work to stay in control, and keep reaching for your goals!

Exercise Tips

Start by choosing activities you enjoy. If you like company, exercise with a friend. If you like time alone, put on your earphones and have an hour to yourself. Either way, the tips below will help you get the most out of exercise.

- Warm up with light exercises, such as walking, for at least 5 to 10 minutes. This helps get your heart and muscles ready to go, and reduces your chances of having symptoms.
- Drink plenty of water when you exercise. This keeps your body from losing too much fluid.
- Take it easy when you have a cold.
- Cool down after your workout for at least 5 minutes. Move at a slower pace. Then finish by stretching.
- Be cautious in cold weather. You may need to increase the length of your warm-up. To play it really safe, exercise indoors when it's cold out.



Pursed-Lip Breathing

If you feel short of breath, controlling the way you breathe can help. Try the following:

1. Slowly breathe in through your nose for 1 count.
2. Purse your lips as if you were going to whistle.
3. Breathe out slowly through your pursed lips for 2 counts.
4. Repeat until you're no longer short of breath.

My Exercise Plan



Work with your healthcare team to create an exercise plan. A common goal is to exercise 30 or more minutes per day.

My regular exercise is: _____

How often I exercise: _____

I have exercise-induced asthma.

My quick-relief medication is: _____

I take my medication: _____

Living with Asthma

Certain health problems or habits can affect your asthma control. Managing these conditions can help you control asthma. So if you're overweight, smoke, or have chronic health problems, talk to your healthcare provider about what you can do to be healthier.

Lifestyle Factors

Your lifestyle can affect asthma control.

Factors that can have an impact include:

- **Smoking.** Tobacco smoke is bad for everyone. It's even worse for people with asthma. So if you smoke, make quitting your priority. Ask your healthcare provider to help you make a plan to quit. He or she may point you to a local stop-smoking class or support group. Aids such as medications or nicotine-replacement products may also be an option. See page 48 for more resources.
- **Being overweight.** Excess weight may put stress or pressure on airways, making breathing more difficult. It can also worsen some conditions that trigger asthma, such as GERD. To lose weight, you need to eat fewer calories and burn more calories with exercise. Ask your healthcare provider for advice on getting started.

Chronic Health Conditions

Certain health problems can worsen asthma control. They include:

- **Sinusitis.** Sinus infection (sinusitis) can be a chronic problem, especially if you have allergies. It can irritate airways and trigger asthma flare-ups. Medication is often used to control symptoms or fight infection. Irrigating (rinsing) nasal passages may help prevent infection. In some cases, surgery can drain sinuses or fix anatomical problems that lead to infection.
- **Gastroesophageal reflux disease (GERD).** This condition (also called "acid reflux") occurs when stomach acid escapes through the valve at the top of the stomach. The acid can travel up as far as the throat. This can cause coughing, or it may cause no obvious symptoms. In some people, GERD worsens airway inflammation and triggers asthma flare-ups. Treatment options include medications, certain lifestyle changes, and losing excess weight. Surgery may be needed to fix the problem valve.

Asthma and Pregnancy

During pregnancy, asthma symptoms may get better, get worse, or stay the same. In any case, if you're pregnant or planning a pregnancy, keep following your asthma treatment plan. Most asthma medications are safe to use during pregnancy. In fact, it's more harmful to you and your baby if you skip medications and have a flare-up. If changes are needed, your healthcare provider can help you adjust your treatment plan.



What Lies in the Future?

Change is a fact of life. And many of life's changes can have an impact on asthma control. Your healthcare providers can help you adapt. That way, whether a change is expected or unexpected, welcome or unwelcome, you'll have the resources to stay in control.

The Changing Nature of Asthma

Over time, asthma symptoms and triggers may change. You may move, go to a new school, or start a new job. Your family or household may change. If you're in your teens, your personal best peak flow will most likely increase as you grow and mature. These changes, and many others, can affect asthma control. Using an asthma action plan can help you cope with some changes. If it isn't working anymore, you need to adjust the plan. Your healthcare provider can help you fit your plan to your new situation. He or she can also help make sure you know about new medications and tools that could make your life easier.



Your Family and Friends

Better asthma control makes daily life go more smoothly for you, and for the people in your life. Here are some ways your family and friends can help you control asthma:

- **If they smoke, they should quit.**
Page 48 lists resources that may help. If friends and family can't or won't quit, ask them not to smoke around you, or in your home or car.
- **They can help you control triggers.**
Controlling triggers often means making changes around the house. So get your family involved!
- **They should know the signs of a severe flare-up and what to do in an emergency.**
When asthma is in control, flare-ups and emergencies are unlikely. Still, your friends and family should know what to do, just in case. You'll be safer, and everyone will feel more secure.



Staying in Control

If you're in control—great! Ongoing medical care can help you stay in control. Keep in touch with your healthcare provider. Have checkups and lung-function tests as often as your healthcare provider suggests. Refer back to this workbook when you need to. And keep up the good work!



Way to Go! You Did It!

Now that you have finished this section of the workbook, you should have the tools you need to stay in control. You should be able to answer YES to each of the questions below. If you answer NO to any of them, go back and review that section of the workbook. If you have questions, talk to your healthcare provider.

Parents, go to the next section of your workbook that's for your child.

Yes **No**

Section 1

- Do you understand what asthma is?
- Do you know how to recognize signs of a flare-up?

Section 2

- Do you know your asthma triggers?
- Do you know how to control or avoid them?

Section 3

- Do you understand what your medications do?
- Do you know why and when to use them?

Section 4

- Do you know how to monitor whether your asthma is in control, even if you don't feel symptoms?

Section 5

- Do you have an action plan so you can prevent symptoms and know what to do when you have symptoms?

Section 6

- Do you have a plan to get regular exercise?
- Do you know how to manage exercise-induced asthma?

Section 7

- Have you talked to your healthcare provider about any other health issues you have?
- Do you keep in regular touch with your healthcare provider?

For Kids

Living with Asthma

You have asthma. And you want to feel good. Reading this booklet will help you learn what having asthma means. And it will tell you what you can do to feel better. You have the power to control your asthma!

Asthma and You

Here are some important things to think about:

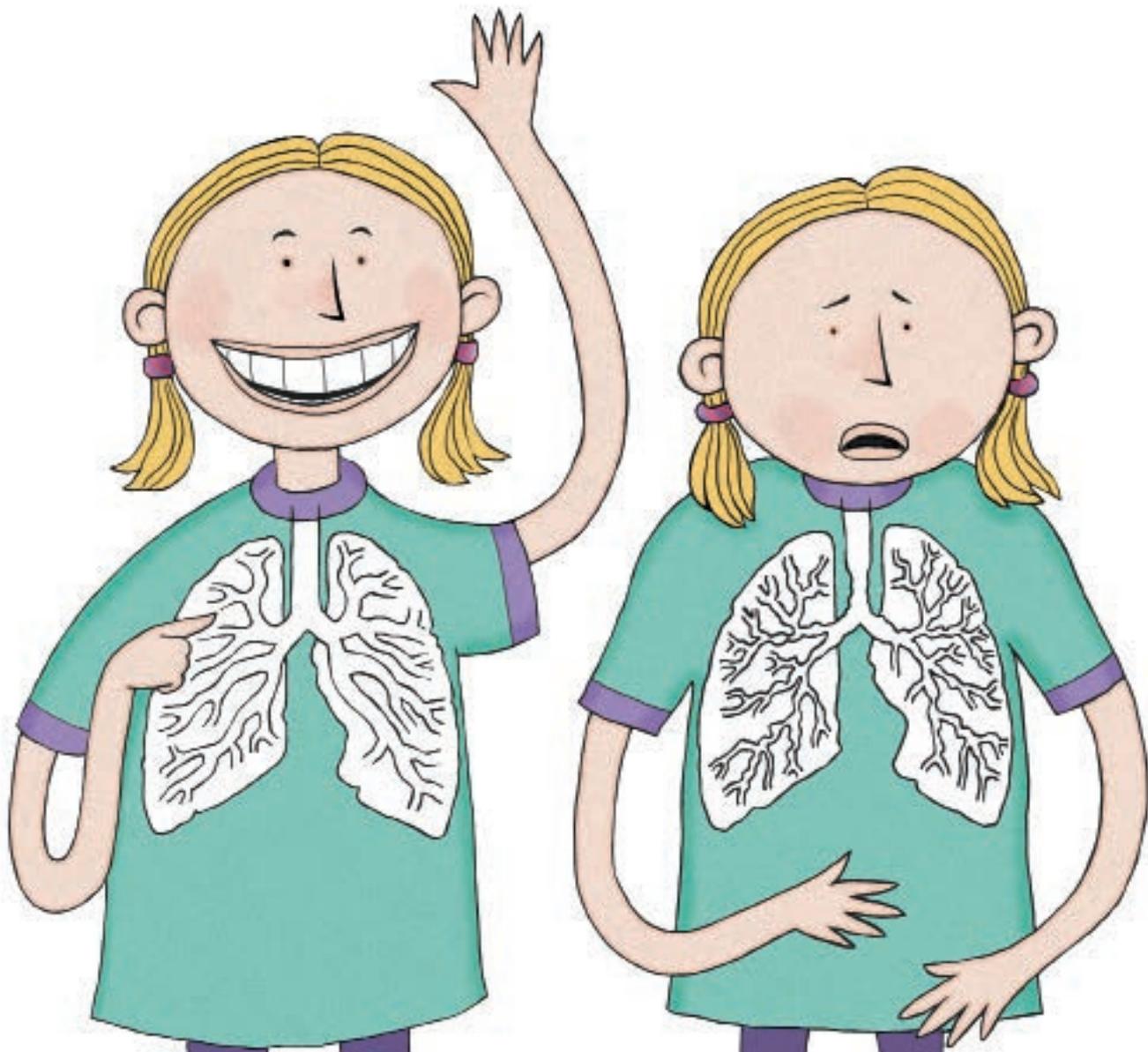
- **Your actions make the difference.** There's no cure for asthma. But you CAN control it. Your doctor will tell you how to do this.
- **You can be as active as you want.** As long as asthma is under control, you can play, do sports, or whatever you like to do.
- **Medications ("meds") work.** Meds are your best defense against asthma. They reduce symptoms and prevent flare-ups. Reliever/rescue meds help you when you are feeling bad and controller meds keep you feeling good and prevent asthma attacks.
- **There's nothing to be embarrassed about.** Lots of people have asthma. These include pro athletes, actors, and musicians.
- **Controlling your asthma will help you feel better for a long time.** Asthma doesn't go away. But learning to control it will help you feel good and live a strong, healthy life!

What Is Asthma?

You know how it feels to have an asthma flare-up. It's hard to breathe. You may cough a lot, or hear a whistling sound in your chest (called wheezing). Your chest may feel tight. It sometimes hurts to take a deep breath or you feel you need to go outside to get more air. You may feel tired and not want to play. Why does this happen? To help you understand how your lungs work, try this exercise. You'll need a drinking straw and a coffee stirrer. First, put the straw to your lips and breathe through it. Air goes in and out. That's what healthy lungs are like. Now try breathing through the coffee stirrer. It's much harder to get air in and out. That's what your lungs are like during an asthma flare-up.

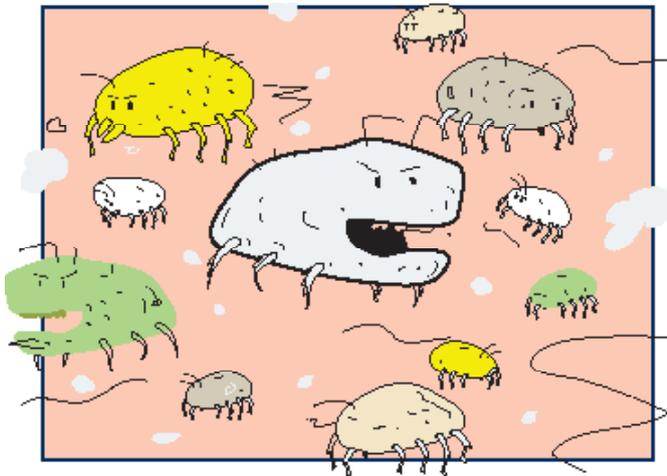
Inside Your Lungs...

Of course, lungs aren't exactly like drinking straws and coffee stirrers. Inside the lungs, air goes in and out through very small tubes. These tubes are called airways. Asthma makes airways a little bit **inflamed** all the time. (Inflamed means swollen and red, like your nose when you have a cold.) Air can still go in and out. You may not notice a problem. But lots of things can bother inflamed airways. Then they get even more swollen. Pushing air in and out gets harder. Less air gets into your lungs. That's a flare-up.



Don't Trip Over Triggers

A major part of controlling asthma is learning how to deal with triggers. Some triggers, like smoking, are easy to avoid. Others you have to face head-on. These pages will show you how.



Dust Mites

Dust mites are tiny bugs that live in household dust. They're too small to see, but they're a major trigger. To control dust mites, keep your room clean. Remove things that collect dust, like stuffed animals. (Or wash stuffed animals often.) Also, if you have carpet in your bedroom, ask your parents about replacing it with wood, tile, or vinyl flooring.

Animals

Many animals can trigger allergies and make asthma worse. To prevent problems, avoid pets with fur or feathers. Or at least keep them out of your bedroom! And wash your hands and face after handling pets.



Pollen

Pollen comes from trees, grasses, and weeds. It can trigger allergies and make asthma worse. Some days have lots of pollen in the air. These happen most often in the spring and fall. To breathe easier, limit outdoor activities on high-pollen days. If you can't, take a shower and change clothes after being outside.

Mold

Mold grows in damp places, like bathrooms and basements. To keep mold from getting out of control, ask your parents to keep damp areas clean so mold doesn't grow.

Weather Changes

Weather changes—especially when it gets cold and dry—can affect your lungs. To help yourself feel good, wear a scarf over your mouth and nose during cold weather. And pay close attention to your symptoms when it's very cold, hot, or humid. Also stay inside during wind and dust storms.



Colds and Flu

Getting sick can be a major trigger. To keep from getting sick, wash your hands often with soap and warm water or use a hand sanitizer. Keep your fingers away from your nose, mouth, and eyes. And don't share food with others. This helps keep germs from infecting you. Also, get a flu shot every year.

Smoke

Smoke from cigarettes, fireplaces, campfires, and grills can trigger asthma. To stay in the clear, avoid people when they're smoking. Even the smell can be a trigger. And if your parents smoke, ask them not to smoke in the house or car. Also, avoid smoke from fireplaces, grills, and other sources.

What Are Your Triggers?

When you know your triggers, it's easier to avoid them. Below are some common triggers. Put a check by those that bother you.

- | | | |
|--------------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Pets | <input type="checkbox"/> Cold weather | <input type="checkbox"/> Colds |
| <input type="checkbox"/> Dust | <input type="checkbox"/> Strong odors | <input type="checkbox"/> Exercise |
| <input type="checkbox"/> Smoke | <input type="checkbox"/> Pollen | <input type="checkbox"/> Air pollution |
| <input type="checkbox"/> Cockroaches | <input type="checkbox"/> Mold | <input type="checkbox"/> Other _____ |

Stay in Control with Medication

You will need to take medications. This is the best way to control your asthma. Some meds are taken every day. Others are used only for flare-ups. Your doctor and your parents will help you learn how to take your meds. This page describes the different types of meds you may use.



Long-Term Controller

Long-term controller meds help keep your airways from getting inflamed. These meds:

- Are taken every day—even when you feel fine.
- Make you less likely to have symptoms.
- Will NOT stop a flare-up once it has begun.
- My meds: _____

Quick-Relief

Quick-relief (“rescue”) meds are used to relieve flare-up symptoms. These meds:

- Should be kept with you at all times.
- Can also help prevent flare-ups triggered by exercise.
- My meds: _____

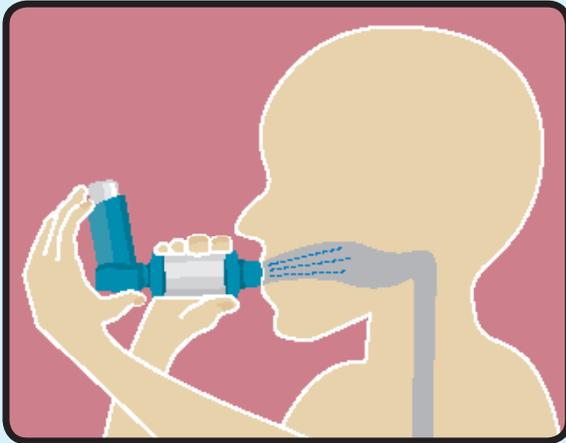
Burst (Oral Steroids)

Burst meds are used only for flare-ups that don’t get better, or when your asthma is really bad. These meds:

- Are taken in addition to quick-relief and controller medications.
- Are usually prescribed only for a short time.

Using Your Inhaler

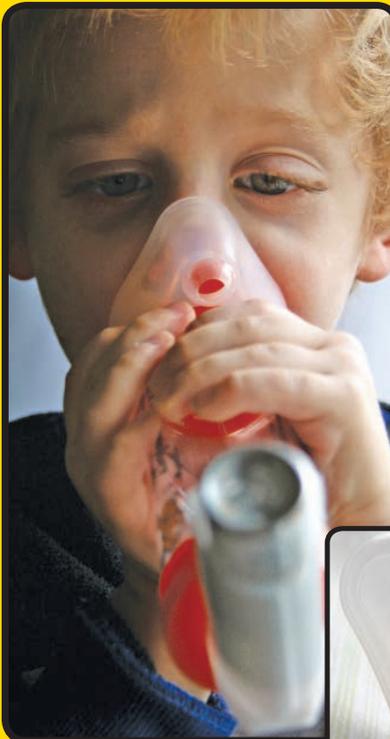
Many asthma meds are taken using an inhaler. This is a small device that sends medication through your mouth and into your lungs. You'll be taught how to use your inhaler. These pages list the types of inhalers and other devices you may use.



Metered-Dose Inhalers (MDIs)

MDIs give you meds using a fine mist. You often need to use them with a **spacer** (see below). To take a dose:

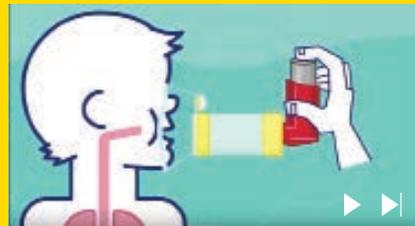
1. Shake the inhaler. Exhale (blow out your air).
2. Spray 1 puff into the spacer.
3. Breathe in deeply and slowly and hold it for 10 counts.
4. If you need another dose, wait at least 30 seconds. Then repeat the same steps.



Using a Mask with Your MDI

You may be given a mask to use with your MDI. This will help the meds get into your lungs. To use the mask:

1. Place the mask over your nose and mouth.
2. Spray 1 puff into the spacer.
3. Breathe in and out normally for 6 breaths. Keep the mask in place until you've finished your 6th breath.
4. Remove the mask.



www.youtube.com/watch?v=3qODE6jTgLA

Watch this video for children with asthma to correctly use an MDI (metered-dose inhaler) with spacer. This tutorial uses images only, in order to eliminate any potential language barrier.

What's a spacer?

A spacer is a tube that fits on an MDI. You use it to make sure your meds get into your lungs. Without it, you may just be spraying meds on the back of your throat! So be sure to use your spacer whenever you use your MDI.

Dry-Powder Inhalers (DPIs)

DPIs deliver meds using tiny grains of powder. No spacer is needed. To use a DPI:

1. Load a dose in the inhaler. Turn your head to the side and exhale.
2. Breathe in quickly and deeply through the inhaler—not through your nose.
3. Hold your breath for a count of 10.
4. If your DPI meds include steroids, rinse your mouth with water when you're done.



Nebulizers

A nebulizer turns medication into a fine mist. You breathe the mist using a mouthpiece or mask. This helps make sure enough medication reaches your lungs. If you need to use a nebulizer, your doctor will show you how to use it.

Caring for Your Spacer and Nebulizer

Be sure to clean your spacer and nebulizer every day!

- **Spacer:** Clean the plastic mouthpiece and cap after every use. Just rinse it with warm water, wipe with a clean cloth and replace the cap. Once a week, wash your spacer with warm soapy water. Dip it in clean water to rinse—don't put it under running water—and let it air-dry.
- **Nebulizer:** Wash all nebulizer parts once a day in warm, soapy water. Rinse well and air-dry. Don't wash or rinse the hose. Once a week, ask your parents to help you soak your nebulizer in white vinegar (see page 23).

Talking About Your Asthma

Tell your teachers, coaches, and friends you have asthma. Be up front about it. It's nothing to be embarrassed about. Also:

- Make sure your teachers and coaches know you ALWAYS need to have your quick-relief inhaler with you.
- Give them a copy of your action plan or a note from your doctor.
- NEVER let someone tell you to "walk it off" if you have symptoms.
- CAUTION!  If you are having problems breathing during the day, tell your parents or another adult so they can check on you during the night.



"I like dogs, but being around them makes my asthma get bad. Let's go play at my house."

"Remember, coach, I need to use my inhaler before I play basketball."



"Grandpa, can you please smoke outside? Cigarette smoke can make me have an asthma flare-up."



Plan for Action

An **action plan** will help you control your asthma. This is a plan you get from your doctor. It's designed just for you. The plan tells you what to do when asthma acts up. It also helps you avoid problems in the first place. Here are the 3 key parts of your asthma action plan:



- 1 Know your asthma zones.** Asthma zones help you keep track of your symptoms. They also tell you what meds to take and when.



- 2 Control your triggers.** Triggers are things that make asthma worse. Learning how to deal with them helps you stay in control.



- 3 Take your medications.** Controller meds are taken daily to prevent problems. Quick-relief meds work fast to relieve symptoms.

Asthma Zones

Green Zone: Safe



When your lungs are fine, you're in the green zone. You feel good. Asthma doesn't get in your way. Keep using your controller inhaler. Avoid triggers that can cause an asthma flare-up.

Green Zone No Symptoms

- Easy to breathe
- No cough or wheezing
- Sleep well
- Can play or exercise

Yellow Zone: Warning



You're starting to have trouble breathing. **TELL YOUR PARENTS OR ANOTHER ADULT RIGHT AWAY.** Use your quick-relief inhaler.

Yellow Zone Symptoms

- Coughing
- Wheezing
- Hard to breathe
- Chest tightness (My T-shirt is too tight and I need to go out to get some air.)
- Faster breathing
- Tire easily with exercise

Red Zone: Danger!



You're having trouble breathing. **ASK YOUR PARENT OR ANOTHER ADULT FOR HELP RIGHT AWAY** and take your quick-relief inhaler with spacer or through a small volume nebulizer/breathing machine! If your quick-relief inhaler doesn't help, and you are alone, **CALL 911.**

Red Zone Symptoms

- Constant coughing or wheezing
- Symptoms that start suddenly during the night
- Trouble breathing at rest
- Breathing very hard or fast
- I can see my ribs go in when I breathe.

Fill in the blanks! Use words from the list below.

When I'm in my green zone, I feel _____. I still have to use my _____. I also have to watch out for _____. When I'm in my yellow zone, I'm starting to have a _____. I might wheeze or have other _____. Then I have to use my _____ inhaler. When I'm in my red zone breathing is very _____. I need to get _____ right away.

triggers
good

symptoms
hard

help
controller

quick-relief
flare-up

Answers are on page 47.

Word Search

Find the hidden words that describe what may happen to you before or during an asthma attack. The words can go up, down, or across.

TIRED

ITCHY EYES

COUGH

FEVER

SNEEZE

SORE THROAT

RESTLESS

HEADACHE

TIGHT CHEST

WHEEZE

SHORT OF
BREATH

RUNNY NOSE

TJUMTIREDLEGAPPLELTBKS
SHKJBKLJHESKJDKJSTUNRH
VFEVERUPAAINATIXNYBXAO
JSTAGOXNYPESONYNNURRLR
TKSNEEZEESLKJDWISJELST
AISSUSHCPVJEESHBESEXO
OTIGHTCHESTKOOEYMYISRFB
RAKLLJBKNMBPOJEKESYBNB
HFALFLSABSGKRDZTYORWUR
TRTNKJVCOUGHKJEKHSEANE
EPPACENSIRHCYNSPCPPTZA
RASEREHTEGNAROEKTSCENT
OXHEADACHEAXKJBIIBGRLH
SLSNBYRESTLESSRIABIJKH

Answers are on page 47.



Word Jumble

Unscramble the words below. You'll find activities that you can do when you follow your asthma action plan.

mupj _____

keyhoc _____

blimc _____

nur _____

nurngin _____

teaks _____

gat _____

cercos _____

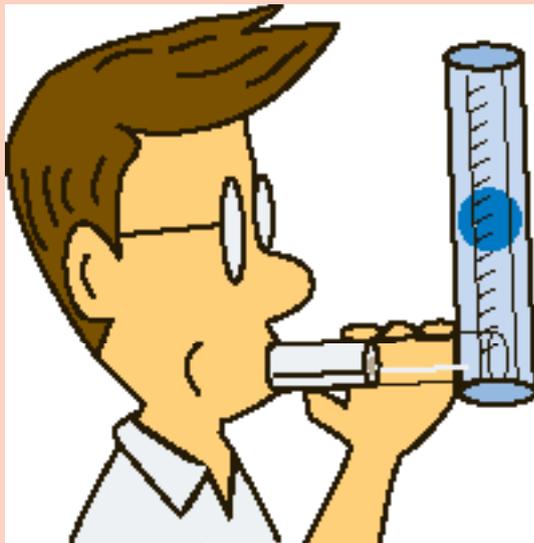
Answers are on page 47.

Take Things One Day at a Time

Controlling asthma is something you do every day. But it doesn't have to be hard. The biggest thing is taking your controller meds. And make sure you've always got your quick-relief inhaler with you. Then you'll be ready for anything!

Stick to a Schedule

Take your controller meds at the same time each day. Make it part of your morning routine—like brushing your teeth. After a while, you won't even have to think about it. You'll just do it.



Go with the Flow

You may be told to use a **peak flow meter**. It measures how well your lungs are working. Your parents can help you keep track of your peak flow numbers. These tell you the normal range for your green zone. A drop in your numbers can also tell you if you're heading for a flare-up—even before symptoms show up.

Breathe Easy

If you feel short of breath, controlling the way you breathe can help. One way is called pursed-lip breathing. Try this:

1. Slowly breathe in through your nose as you count “one—one thousand.”
2. Purse your lips as if you were going to whistle.
3. Breathe out slowly through your pursed lips as you count “one—one thousand, two—one thousand.”
4. Repeat until you're no longer short of breath.

Fill In the Blank

From page 43

1. good
2. controller
3. triggers
4. flare-up
5. symptoms
6. quick-relief
7. hard
8. help

Word Jumble

From page 45

- Jump
- Hockey
- Climb
- Run
- Running
- Skate
- Tag
- Soccer

Word Search

From page 44

T J U M T I R E D L E G W P M L E L T B K S
S H K J B K L J H E S K J D K J S T U N R H
V F E V E R U P A A I N A T I X N Y B X A O
J S T A G O X N Y P E S O N Y N N U R R L R
T K S N E E Z E E S L K J D W I S J E L S T
A I S S U S H C P V J E E S H B E L S E X O
O T I G H T C H E S T K O O E Y M I S R F
R A K L L J B K N M B P O J E K E S Y B N B
H F A L F L S A B S G K R D Z T Y O R W U R
T R T N K J V C O U G H K J E K H S E A N E
E P P A C E N S I R H C Y N S P C P P T Z A
R A S E R E H T E G N A R O E K T S C E N T
O X H E A D A C H E A X K J B I I B G R L H
S L S N B Y R E S T L E S S R I A B I J K H

Resources for Asthma

There's no single way to manage asthma that works best for everybody. It may take time and effort to find what works best for you or your child. The more you know about asthma, the easier it will be for you to stay in control. So take an active role in treatment. The organizations listed below can also help you learn more about asthma and what you can do to breathe better. They can also help you find support groups in your area.

Allergy & Asthma Network–Mothers of Asthmatics

800-878-4403 | www.aanma.org

American Academy of Allergy, Asthma & Immunology

www.aaaai.org/patients.stm

American Academy of Pediatrics

www.aap.org

American Lung Association

800-586-4872 | www.lungusa.org

Asthma and Allergy

Foundation of America

800-727-8462 | www.aafa.org

Centers for Disease Control and Prevention

www.cdc.gov/asthma/parents.html

Global Initiative for Asthma

www.ginasthma.com

Banner Kids health information

www.BannerHealth.com/Asthma

National Heart, Lung, and

Blood Institute

301-592-8573 | www.nhlbi.nih.gov

National Lung Health Education Program

www.nlhep.org

Smokefree.gov

877-448-7848

www.smokefree.gov

YourLungHealth.org

972-243-2272

www.yourlunghealth.org

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