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# LIVING WELL WITH Asthma

A Guide for Patients and Families



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# 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. The more you know about asthma, the easier it will be for you to stay in control. So take an active role in your 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 and Asthma Network

[www.aanma.org](http://www.aanma.org)

## American Academy of Allergy, Asthma and Immunology

[www.aaaai.org/patients.stm](http://www.aaaai.org/patients.stm)

## American College of Allergy, Asthma and Immunology

[www.acaai.org/asthma](http://www.acaai.org/asthma)

## American Lung Association

800-586-4872

[lung.org/lung-disease/asthma](http://lung.org/lung-disease/asthma)

## Asthma and Allergy Foundation of America

[www.aafa.org](http://www.aafa.org)

## Smokefree.gov

877-448-7848

[www.smokefree.gov](http://www.smokefree.gov)

## 2 Using This Workbook

This workbook is a guide to help you learn how best to control your asthma.

## 3 CHAPTER 1: Your Role in Controlling Asthma

4 Your Evaluation and Diagnosis

## 6 CHAPTER 2: Learning About Your Lungs

8 Asthma Flare-ups

## 10 CHAPTER 3: Controlling Your Triggers

12 Controlling Your Triggers: Irritants  
14 Controlling Your Triggers: Allergens  
16 Controlling Your Other Triggers

## 18 CHAPTER 4: Asthma Medications

20 Taking Asthma Medications  
22 Using Inhalers

## 24 CHAPTER 5: Self-Monitoring

## 26 CHAPTER 6: Your Asthma Action Plan

## 28 CHAPTER 7: Asthma and Exercise

## 30 CHAPTER 8: Living with Asthma

31 What Lies in the Future?  
32 Resources for Asthma



32 Living Well with Asthma



# 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 include:

- Avoiding or controlling asthma triggers.
- Knowing how medications work and when and how to take them.
- Monitoring your asthma control.
- Having an Action Plan for when you have symptoms.
- Exercising safely.
- Improving your overall health.

## My Goals

Having goals helps you identify why controlling asthma is important to you. It also helps you determine whether your treatment plan is working for you. Check off the goals below that apply to you. Write in any additional goals you have. As you use this workbook, keep your goals in mind.

I want to:

- Miss fewer school or work days.
- Play sports and do other activities without having asthma symptoms.
- Sleep better.
- Be healthier so my parents, spouse, or friends won't worry about me.
- Feel better all or most days.
- Prevent flare-ups.
- Know how to take care of a flare-up.
- Keep asthma from controlling my life.
- Travel or go on vacation without asthma getting in the way.
- Not feel like asthma makes me different.

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

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# 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.

## Staying in Control

If you're in control—great! Ongoing medical care can help you keep it that way. See your healthcare provider regularly. 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!



## Notes for Family and Friends

Better asthma control makes daily life go more smoothly for everyone. Here are some ways you can help your loved one control asthma:

**If you smoke, quit.** Page 32 lists resources that may help with quitting. If you can't quit, don't smoke around your loved one or in your home or car.

**Help control asthma triggers.** This often means making changes around the house. See pages 12 to 17 for tips.

**Have a copy of your loved one's Action Plan.** This plan will outline the signs and symptoms of a flare-up and tell you what to do in an emergency. See page 27 for more information.

## CHAPTER 8

# Living with Asthma

Certain lifestyle factors or health conditions can affect your asthma control. Managing these 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 32 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 acid reflux. If you need to lose weight, ask your healthcare provider for advice on getting started.

## Chronic Health Conditions

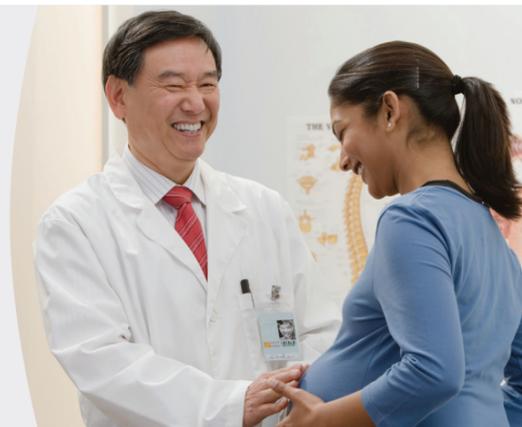
Certain health problems can worsen asthma control. They include:

- **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.** This condition (also called GERD or acid reflux) occurs when stomach acid escapes through the valve at the top of the stomach. 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

If you're pregnant or planning a pregnancy, keep following your asthma treatment plan. Your healthcare provider can discuss asthma and pregnancy with you. He or she can adjust your medication plan, if needed.

30 Living Well with Asthma



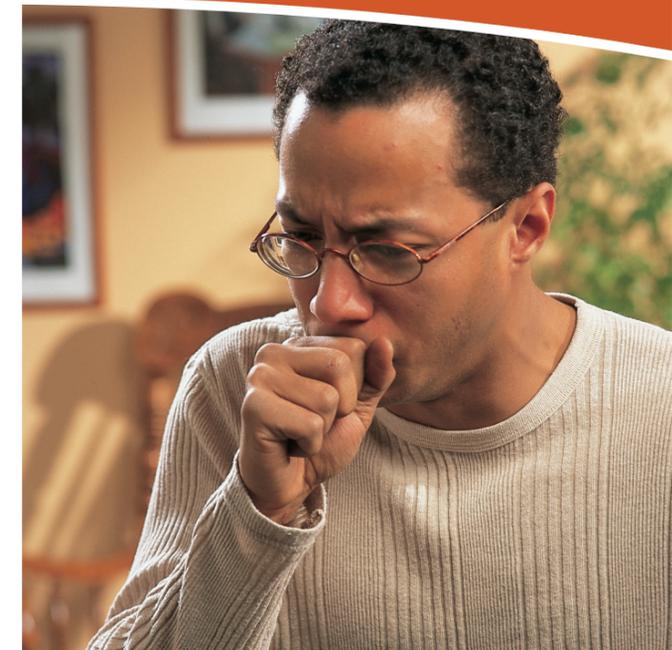
## CHAPTER 1

# Your Role in Controlling Asthma

You may have just been diagnosed with asthma. Or you may have had it for a while. This workbook is designed to help you keep asthma under control. It can help you work with your healthcare providers to find a treatment plan that meets your needs. Most importantly, it can help you feel more confident. You can control asthma! It does take effort. But the results are worth it.

## What Is Asthma?

Asthma is a condition that inflames the airways in the lungs, causing them to swell. This narrows the tubes that air passes through. When the airways narrow, you can have symptoms such as coughing, wheezing, and chest tightness. This is called an asthma **flare-up** (or "asthma attack"). Having a flare-up means your asthma is not in good control. Even if you don't have symptoms, though, your airways can still be inflamed. That is why it is vital to work with your healthcare provider. Together, you will develop a plan to monitor your asthma and take steps to keep it under control.

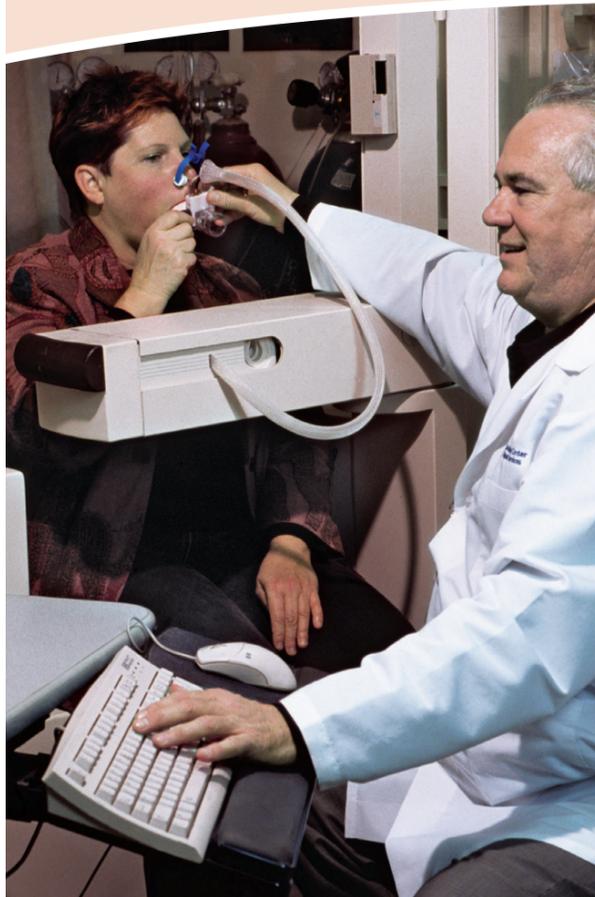


*Work with your healthcare provider to learn the best ways to control your asthma.*

CHAPTER 1: Your Role in Controlling Asthma 3

# Your Evaluation and Diagnosis

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



*Spirometry is one common test that helps show how well your lungs are working.*

## Lung Function Tests

Lung function tests help measure how well your lungs are working. One common test is **spirometry**. It involves breathing out (exhaling) into a special device. It measures how much air you can exhale, and how quickly. Spirometry and other tests are often done before and after you take certain medications. 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 provider see how well your treatment is working.

## Words You May Hear

There are several types of graphs that show data from lung function tests. Some of the things that spirometry measures include:

- **FEV (forced expiratory volume).** This is the amount of air you exhale after the deepest possible breath. FEV may be measured in several ways.
- **PEF (peak expiratory flow).** This is a measure of how fast you can exhale. It is tested during spirometry. It can also be tested with a device called a peak flow meter (see page 24).

## 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.
- 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.
- Take it easy when you have a cold.



## 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: \_\_\_\_\_

How often I exercise: \_\_\_\_\_

I have exercise-induced asthma.

My quick-relief medication is: \_\_\_\_\_

I take my medication: \_\_\_\_\_

## CHAPTER 7

# 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:

- **Aerobic activity.** This 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.** This uses weights or resistance to build muscles.
- **General activity.** This 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.

## 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!



## 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.

- A **primary care provider** guides overall care and treatment. If needed, he or she will refer you to asthma specialists.
- **Respiratory therapists** give lung function tests and breathing treatments. They often teach patients about asthma.
- **Nurses** and **health educators** help patients learn about tools and methods for controlling asthma.
- Specialists, such as an **allergist** or a **pulmonologist**, help evaluate asthma. They can adjust a treatment plan to provide better asthma control.
- An **asthma care manager** may be included in some teams. This person coordinates care and helps team members work together.



## Contact Information

You can keep track of contact names and phone numbers here.

Primary healthcare provider

Phone

Nurse/health educator

Phone

Asthma specialist

Phone

Who to call in an emergency

Phone

Pharmacy

Phone/website

**CHAPTER 2**

# Learning About Your Lungs

When your lungs are healthy, fresh (oxygen-rich) air flows smoothly into your lungs. Waste (oxygen-poor) air flows back out easily. With asthma, the airways within the lungs are swollen and sensitive. Getting waste air out of the lungs and fresh air back in can become difficult.

## Healthy Lungs

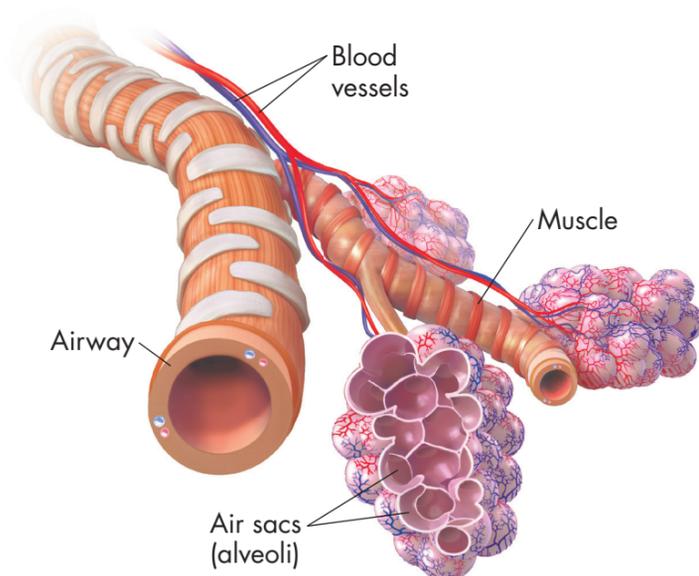
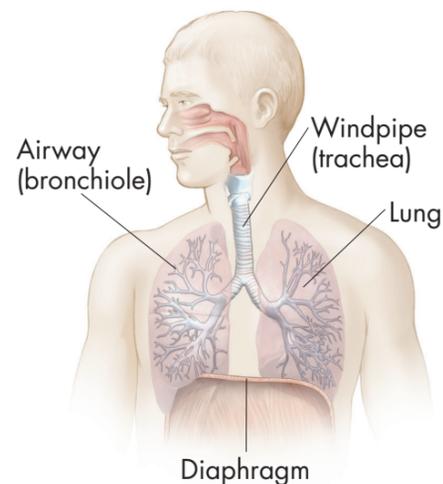
Inside the lungs there are branching **airways** made of stretchy tissue. Each airway is wrapped with bands of muscle. The airways get smaller as they go deeper into the lungs. The smallest airways end in clusters of tiny balloonlike **air sacs** (alveoli). These clusters are surrounded by blood vessels.

When you breathe in (inhale), fresh air enters the lungs. It travels down through smaller and smaller airways until it reaches the air sacs. When you breathe out (exhale), air travels back up from the air sacs through the airways and out of the lungs.

The airways also produce **mucus** that traps particles you breathe in. Normally, the mucus is then swept out of the lungs to be swallowed or coughed up.

## How the Lungs Work

The air you breathe in contains **oxygen** that your body needs to function. When air reaches the air sacs at the end of the smallest airways, oxygen passes through the walls of the sacs into blood vessels. The blood then carries this oxygen to all parts of the body. As the body uses up this oxygen, **carbon dioxide** (a waste gas) is made. The blood carries carbon dioxide back to the air sacs in the lungs. The air sacs remove the waste gas from the blood and send it into the air you breathe out. The process of getting oxygen into the body and carbon dioxide out is called **gas exchange**.



## My Action Plan

Fill out this Action Plan form with your healthcare provider. Then make extra copies to keep where you need them.

Name: \_\_\_\_\_  
 Personal Best Peak Flow: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Office phone: \_\_\_\_\_  
 After hours phone: \_\_\_\_\_

Green Zone	Yellow Zone	Red Zone
<p><b>Peak flow</b> is greater than: _____ (80% of personal best).</p> <p><b>No Symptoms:</b> Asthma doesn't get in the way of work, school, activities, or sleep.</p>	<p><b>Peak flow</b> is between: _____ (50% of personal best) and _____ (80% of personal best).</p> <p><b>Yellow Zone Symptoms:</b></p> <ul style="list-style-type: none"> <li>• Coughing, wheezing</li> <li>• Chest tightness</li> <li>• Shortness of breath</li> <li>• Symptoms at night</li> </ul>	<p><b>Peak flow</b> is less than: _____ (50% of personal best).</p> <p><b>Red Zone Symptoms:</b></p> <ul style="list-style-type: none"> <li>• Constant coughing, wheezing</li> <li>• Symptoms that start suddenly at night</li> <li>• Trouble breathing at rest</li> <li>• Symptoms listed below under <b>CALL 911</b></li> </ul>
<p>Long-term control medication(s) to take daily:</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>Quick-relief medication(s) Take:</p> <p>_____</p> <p>_____</p> <p>Repeat if: _____</p> <p>Increase long-term control medication(s) for _____ days.</p> <p>Other medication(s): Take for _____ days.</p>	<p>Quick-relief medication(s) Take:</p> <p>_____</p> <p>_____</p> <p>Repeat if: _____</p> <p>Increase long-term control medication(s) for _____ days.</p> <p>Other medication(s): Take for _____ days.</p>
<p>Take these medication(s) _____ minutes before exercise:</p> <p>_____</p> <p>_____</p> <p>Other medications:</p> <p>_____</p> <p>_____</p>	<p>Call healthcare provider's office if in Yellow Zone for _____ hours or use more than _____ puffs of quick-relief medication a day.</p>	<p>Call healthcare provider's office if you have Red Zone symptoms. <b>CALL 911</b> if you have any of the following:</p> <ul style="list-style-type: none"> <li>• Severe trouble breathing (trouble walking or talking)</li> <li>• Lips or fingers turning blue</li> </ul>
<p>Medical appointments: Visit every _____ months.</p>	<p>Use the Yellow Zone plan if you have an upper respiratory infection.</p>	

## CHAPTER 6

# Your Asthma Action Plan

By now, you understand the basic tools and methods for controlling asthma. The next step is to create an **Action Plan**. This plan is a key tool for controlling asthma. You and your healthcare provider should develop this plan together. It is based on your peak flow, your symptoms, or both. Once the plan is in place, you can begin to see whether it's working to control your asthma.

## Why 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. The more you stay in control, the better you'll feel. If you don't stay in control:

- Symptoms can affect your life. You may miss school, work, or other activities that you enjoy.
- Inflammation may cause permanent damage to your lungs.
- Flare-ups can be dangerous, even deadly.

## Two Questions to Ask Yourself

The questions below are a quick way to check your asthma control. **If you answer yes to either question, your asthma is not well controlled.** If you have a yes answer, talk to your healthcare team. If you're already following your Action Plan closely, your medications may need to be adjusted.

- 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**?

## What Is an Action Plan?

Your Action Plan tells you what to do when you are in each of the three asthma zones:

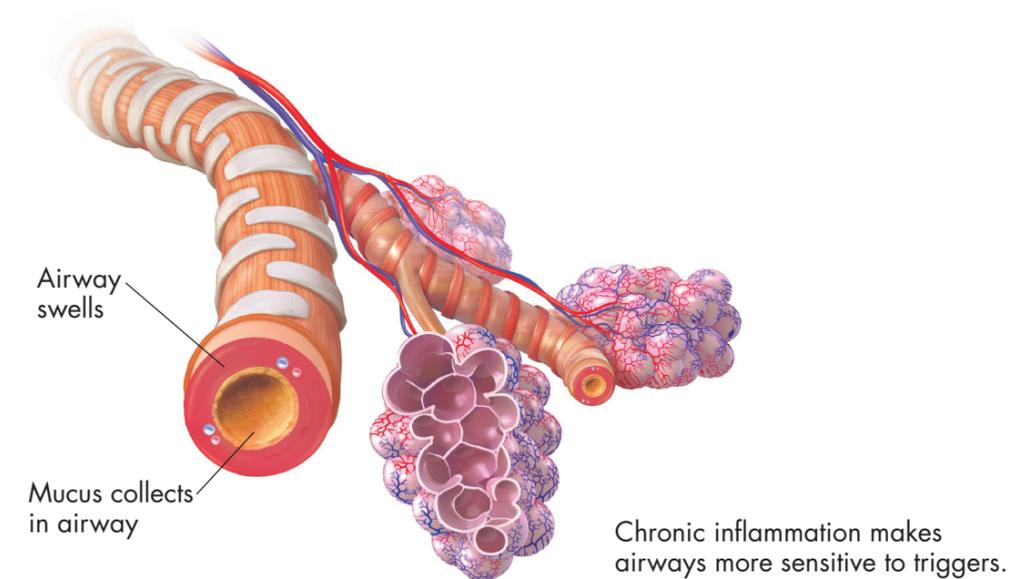
- **Green = good control.** You have no asthma symptoms. Peak flow is normal or near normal. When asthma is in control, you are in the green zone all or most of the time.
- **Yellow = poor control.** You are having more symptoms or needing more rescue medication. Peak flow is lower than normal. This is a mild-to-moderate flare-up. Quick action is needed to get back into control. If you are often in the yellow zone, your treatment plan needs to be revised.
- **Red = out of control.** Symptoms are moderate to severe. Your peak flow is very low. This is a severe flare-up. **Get medical attention now!**

## When You Have Asthma: Chronic Inflammation

When you have asthma, your airways are always slightly inflamed. This means they are swollen and irritated. More mucus is made than normal. This makes the airways narrower. The airways may not always be narrowed enough for you to notice breathing problems. But this **chronic** (long-lasting or recurring) inflammation makes your airways more sensitive than those of other people. As a result, certain things can trigger your airways to inflame even more, causing an asthma flare-up.

## Effects of Chronic Inflammation

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

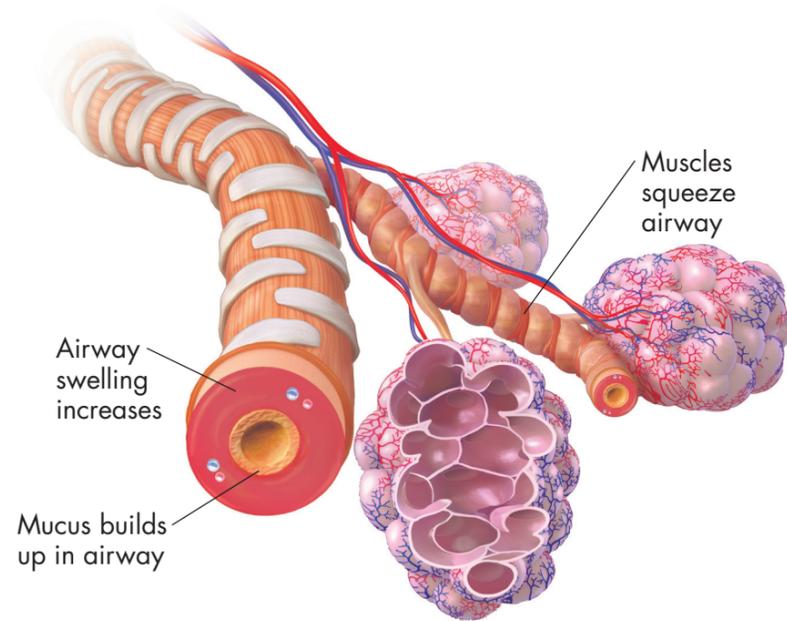


# Asthma Flare-Ups

You know how asthma symptoms feel. But what causes them? They occur when inflamed airways react to a **trigger** (see page 10). The reaction leads to more swelling and narrowing of airways. As the swelling and narrowing worsen, it becomes harder to empty waste air from the lungs and pull in fresh air. Less oxygen gets into the bloodstream. A severe asthma flare-up can send you to the hospital. It can even be deadly.

## Mild to Moderate Flare-Ups

When sensitive airways are irritated by a trigger, the muscles around the airways tighten. This is called **bronchospasm**. It narrows already-inflamed airways even more. Extra thick, sticky mucus is also made. All of this makes it harder to push waste gas out of the lungs. This leads to wheezing, coughing, and shortness of breath.



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

## Symptoms of a Mild to Moderate Flare-Up

- Coughing (may wake you up at night)
- Wheezing (a whistling noise, especially when breathing out)
- Chest tightness
- Being short of breath
- Feeling tired and low on energy

## Using a Symptom Diary

Instead of using peak flow, you can track your symptoms. Use a chart like the one below. (Or use an app on your smartphone or tablet.) Show the chart to your healthcare provider when you visit. If you have symptoms often or if your symptoms are hard to control, you may need changes in your treatment plan. Also know which symptoms mean you need to take action as outlined by your Action Plan (see page 27).

### My Symptom Diary

Date	Symptoms	Possible triggers	Action taken	Results
Example: <i>Tues 3/3</i>	<i>Wheezing, cough</i>	<i>Cold air</i>	<i>2 puffs albuterol, went inside</i>	<i>Symptoms gone in 20 min.</i>

©2015 StayWell, LLC. Chart can be copied for personal use. Not to be reproduced for any other reason without permission from StayWell.

## CHAPTER 5

# Self-Monitoring

Self-monitoring helps you determine how well your treatment plan is working. This section includes tools for monitoring your asthma. One way to monitor your asthma is by checking your peak flow. Another way is to keep track of how often you have symptoms, when or why, and what works to control them. You may use both methods. Work with your healthcare provider to determine what is best for you.

## Using a Peak Flow Meter

The peak flow 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 you should check your peak flow.



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.

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.

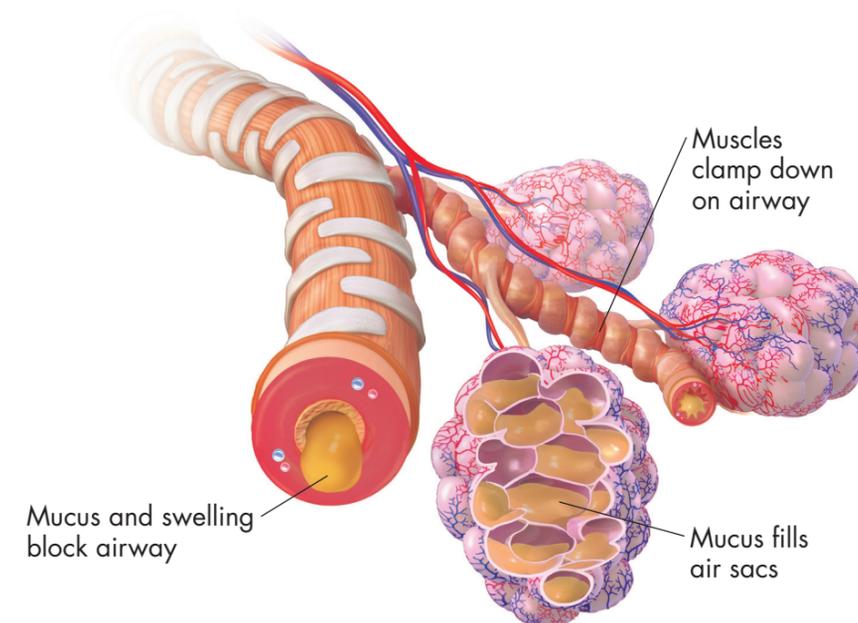
## Recording Peak Flow Results

Each time you find your peak flow, record your results. Track them on paper. If you have a smartphone or tablet, you can also get an app for tracking. Every peak flow result will tell you what asthma zone you're in. Then take action according to your Action Plan, if needed (see page 27).

For you and your healthcare provider to determine your asthma zones, you will need to find your personal best peak flow. **To find your personal best:** Record peak flow numbers during a period of 2 to 3 weeks when you're not having symptoms. Monitor at least twice a day as directed by your healthcare provider. Your personal best is the highest peak flow you record during this time.

## Severe Flare-Ups

A life-threatening flare-up is due to severe bronchospasm, severe swelling, and large amounts of thick, sticky mucus. Together, these block the airways, sometimes completely. Waste gas is trapped in the air sacs, and no oxygen-rich air can be breathed in. As a result, the body does not get enough oxygen. If this goes on for too long, it can be deadly.



During a severe flare-up, mucus and swelling get worse and the muscles tighten even more. This blocks the airway.

## Symptoms of a Severe Flare-Up

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

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



# Using Inhalers

Some asthma medications are inhaled using a device called an inhaler. The inhaler helps you take a measured dose of medication into your lungs. These pages discuss common types of inhalers. But not all types work the same way. So talk with your healthcare team. Have them show you how to use and care for the type you're given.

## 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. It also helps reduce side effects.

- 1 Remove the caps from the inhaler and spacer. Shake the inhaler well and attach the spacer. If the inhaler is being used for the first time or has not been used for a while, prime it as directed by its maker.
- 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 30 seconds before taking the next puff.



## Using MDIs Without Spacers

Inhalers work best with spacers. But if you don't have your spacer with you, use these steps:

- 1 Shake the inhaler and remove the cap. Breathe out through your mouth.
- 2 Hold the inhaler 1 to 2 inches from your open mouth. Keep your chin up.
- 3 Press down on the inhaler to spray 1 puff as you breathe in slowly and deeply through your mouth. Breathe in for about 5 seconds. Hold your breath for a count of 10. Then breathe out slowly. If a second dose is prescribed, wait at least 30 seconds before taking the next puff.



## If You Have Allergies

People with asthma often have allergies. An allergic reaction can trigger an asthma flare-up. If you have allergies, or suspect you have them, talk with your healthcare provider about your options. You may be referred to a specialist for testing and treatment.

### Allergy Testing

Allergy testing can determine which allergens affect you. Your healthcare provider can discuss testing and your test results with you. Once you know your allergens, take steps to avoid them (see pages 14 and 15).

### Allergy Medications

Certain medications can help your body be less sensitive to allergens. When taken regularly, they may help reduce inflammation caused by allergies. Many are available over the counter. Talk to your healthcare provider about medication options.

### Allergy Immunotherapy

Immunotherapy exposes a person to increasing amounts of an allergen. This can help reduce a person's sensitivity to the allergen. It can be very effective for long-term management of certain allergies. The treatment is often given as injections into the arm. In some cases, tablets that are put under the tongue can be used. Talk to your allergy specialist to learn more.



# 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.



## Smoke

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

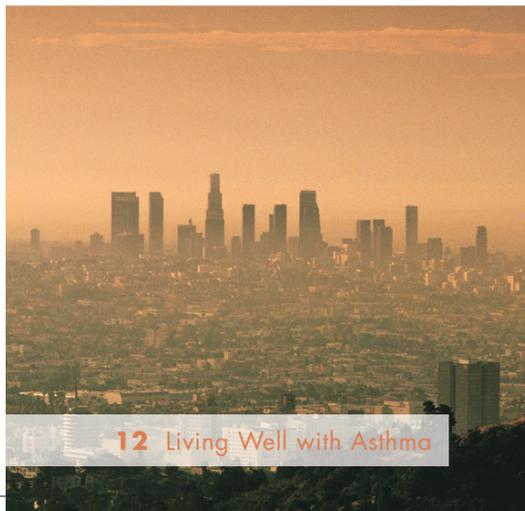
- Don't smoke. And don't let people smoke in your home or car.
- When you travel, ask for nonsmoking rental cars and hotel rooms.
- Sit in the nonsmoking section when eating out.
- Avoid fireplaces and wood stoves. If you can't, sit away from them. Make sure the smoke is directed outside.
- Move away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



## Air Pollution

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.



## Using Quick-Relief Medications

Quick-relief medications help ease symptoms of a flare-up. These include coughing, wheezing, and shortness of breath. A quick-relief inhaler is used when you feel symptoms. If your healthcare provider has advised, it can also be used before exercise to prevent symptoms.

- Keep your quick-relief inhaler with you at all times—even if you feel okay.
- If you can, keep a spare quick-relief inhaler at work, at school, or in your gym bag.
- Plan ahead to be sure you don't run out. Also be sure to reorder a new quick-relief inhaler if you have one that is about to expire.

*Carry your quick-relief inhaler with you.*



## Your Medication Plan

For your health, taking your medications on time and as directed is essential. Your healthcare team will help you learn about the medications you take. If you don't understand something about your medication plan or have concerns, talk to your healthcare provider or pharmacist. Don't let confusion, cost, or fear keep you from better health. Be sure to:

- Learn the correct way to use your inhalers. See the tips on pages 22 and 23 of this workbook. Show your healthcare provider how you use each inhaler to be sure you're using it correctly.
- Talk with your healthcare provider or pharmacist if you feel you can't afford your medications. There are often ways they can help. Do not take a lower dosage than prescribed to save money.
- Never stop taking medication or change your medication plan without talking to your healthcare provider first. Doing so can put your health at risk.
- Make sure you understand what each medication does and doesn't do. Know when to use each type of medication.
- Make sure to refill your prescriptions on time, or even ahead of time, so you don't run out.

# Taking Asthma Medications

Medications are one of your most important tools for controlling asthma. Work with your healthcare provider to develop a medication plan that fits your needs. Know what your medications are and when to use them. 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.



## Working with Your Healthcare Provider

Work with your healthcare provider to get the most benefit from your medication plan. As you develop a medication plan, tell your healthcare provider about any issues or concerns you have, including cost. Be sure to have any questions answered. Together, you can work on:

- **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, tell your healthcare provider. A new medication or a dosage change may solve the problem.

## Taking Long-Term-Control Medications

Long-term-control medications are taken on a schedule. For most people, this means every day. 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. Try to take your medications at the same time each day.
- Use your inhaler before brushing your teeth. This helps make rinsing your mouth afterward become automatic.
- When you travel, make sure you have enough medication to last you for the entire trip.
- Ask for help and suggestions if you can't remember to take your medications or have any issues with taking them.

## 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, ammonia, and other harsh chemicals for cleaning. Clean safely with water and white vinegar or baking soda.
- Use exhaust fans while cooking to reduce smoke and odors.
- Store clothes in plastic bins with lids. Avoid using mothballs or cedar chips.
- Avoid perfumes, air fresheners, incense, 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.
- Make sure your work areas are well ventilated.
- Pour liquid cleaners instead of spraying them.

Write in other ideas or special instructions here:

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## ! Protect Yourself from Irritants

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

# Controlling Your Triggers: Allergens

Many people with asthma also have allergies. Inhaling allergens leads to inflamed airways. To help stop problems before they start, learn what you are allergic to. Then do your best to avoid these allergens. The tips below help you reduce your exposure to common allergens.



## Dust Mites

Dust mites are tiny bugs too small to see or feel. They and their droppings are allergens for many people. Dust mites live in mattresses, bedding, carpets, curtains, and indoor dust. They thrive in warm, moist environments. To help control them:

- Wash and dry all bedding on hot settings once a week. This kills dust mites and helps reduce their allergens.
- Cover mattresses and pillows with dust-mite-proof cases.
- Remove upholstered furniture from the bedroom.
- If you can, replace wall-to-wall carpets with wood, tile, or linoleum floors—especially in the bedroom.
- If you live in a moist environment, consider getting a dehumidifier.

## Animals

Animals with fur or feathers shed tiny particles called dander. This is a common allergen. So is pet saliva and urine. If you are allergic to pets:

- 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. Do not let pets sleep in your bed.
- Wash your hands and clothes after handling pets.
- Get HEPA filters for air conditioners and furnaces.



## How Asthma Medications Are Used

Effect	Type of Medication
<b>Quick-Relief</b> <ul style="list-style-type: none"> <li>• Called "rescue" medications.</li> <li>• Taken only when needed.</li> </ul>	<b>Short-acting bronchodilators (inhaled)</b> Quickly relax muscles that tighten around the airways to open the airways and relieve a flare-up. May be prescribed for use before exercise to prevent exercise-induced asthma.
<b>Long-Term Control</b> <ul style="list-style-type: none"> <li>• Called "maintenance" medications.</li> <li>• Usually taken daily.</li> <li>• Help prevent flare-ups, but will NOT stop a flare-up in progress.</li> </ul>	<b>Corticosteroids (inhaled)</b> Prevent airway inflammation or help reduce it. Protect the airways from irritants and allergens.
	<b>Long-acting bronchodilators (inhaled or swallowed)</b> Slowly relax the muscles around the airways. Help with long-term control of asthma symptoms. Should NOT be used for quick relief. Should be used along with a corticosteroid inhaler.
	<b>Other long-term controllers (inhaled, swallowed, or injected)</b> May be prescribed along with a corticosteroid inhaler. Can help block the asthma response to some triggers.

## Using Inhaled Corticosteroids

Inhaled corticosteroids can lead to a mouth infection called thrush. To help prevent this:

- 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 meets your needs.

## CHAPTER 4

# Asthma Medications

Medications play a key role in controlling asthma. Some medications help reduce chronic inflammation. Other medications 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 inhalers correctly.

## Two Main Types of Asthma Medications

Two main types of medications are prescribed to help manage asthma. These are listed below. Other types of medication may also be used to help control allergies and prevent the airways from responding to triggers.

### Bronchodilators

These medications relax the muscles around the airways. They come in two forms:

- **Short-acting bronchodilators** are also called **quick-relief** medications. They start working within minutes of using them to help stop a flare-up. This eases symptoms such as coughing, wheezing, and shortness of breath.
- **Long-acting bronchodilators** help prevent flare-ups from starting. They work more slowly and for a longer time than short-acting bronchodilators.

### Anti-Inflammatories (Corticosteroids)

These medications work inside the airways. They help reduce inflammation, swelling, and mucus. This makes the airways less sensitive to triggers and less likely to flare up. These medications are taken on a schedule—usually every day. It may take several days to weeks of daily use before they reach full effectiveness. If used correctly, these medications help keep asthma under control. These medications are usually inhaled. If asthma is severe, they may also be used in pill form for a short time. Pills work faster than inhaled corticosteroids, but have a greater chance of causing side effects.



## Mold

Mold grows in damp places, such as bathrooms, basements, and closets. To help control it:

- 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.
- Don't use vaporizers, humidifiers, or evaporative (swamp) coolers. These put water into the air and encourage mold growth.



## Pollen

Pollens from trees, grasses, and weeds are common allergens. (Flower pollens are generally not a problem.) To help avoid them:

- Learn what pollens affect you most. Pollen levels vary depending on the plant, the season, and the time of day. Look for local pollen counts online.
- During high pollen season, use air conditioning instead of opening windows in your home or car.
- Have someone else do yardwork, if possible. If you must do it, wear a filter mask.



## Rodents and Cockroaches

Rodents (such as mice) and cockroaches are common pests. They also produce allergens. To help avoid them:

- Keep your kitchen clean and dry. A leaky faucet or drain can attract cockroaches.
- Remove garbage from your home daily.
- Store food in tightly sealed containers. Wash dishes promptly. Don't leave pet food out.
- Use bait stations or traps for cockroaches and rodents. Avoid using chemical sprays or poisons.



# 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, the tips below can help.



## Weather

Some types of weather can trigger asthma or contribute to other triggers. Of course, you can't control the weather! But you can take precautions when weather may be an issue:

- Keep track of which types of weather affect you most: cold, hot, humid, or windy. This varies from person to person.
- 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.



## Food Additives

Food additives can trigger asthma flare-ups in some people. If this is true for you, check food labels and avoid "sulfites," "metabisulfites," and "sulfur dioxide." These may be found in foods such as wine, beer, and dried fruit.



## Colds, Flu, and Sinus Infections

Illnesses that affect the nose and throat (upper respiratory infections) can irritate your lungs. To protect yourself:

- Wash your hands often with soap and warm water. Use a hand sanitizer when you can't wash your hands.
- Get a yearly flu shot.
- Stay away from people who are sick.
- Take care of your general health. Get plenty of sleep, choose healthy foods, and get regular exercise.

## Medications

Some people have asthma symptoms after taking certain medications. These include aspirin and aspirin-like products, such as ibuprofen and naproxen. They also include certain prescribed medications 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 medications. Medications for colds and sinus problems often contain aspirin or aspirin-like ingredients.



## Emotions

Crying, feeling anxious, or even laughing are triggers for some people. If emotions trigger asthma symptoms, talk to your healthcare provider. It is likely that your asthma needs to be better controlled.

- If you find yourself feeling short of breath, 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.



## Exercise

Exercise triggers asthma symptoms in some people. This is called **exercise-induced asthma**. Even if you have this type of asthma, you can still be active. These tips (and your healthcare provider's advice) can help you exercise safely:

- If you have been told to do so, take your quick-relief medication a few minutes before exercise.
- Always carry your quick-relief inhaler with you when you exercise.
- Stop and follow your Action Plan (see page 27) if you notice asthma symptoms.

**See pages 28 and 29 for more about exercise.**

