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# Introduction

Being told you have asthma can be scary. Not knowing what to expect, both from your body and from your medicines, can add to your stress. The goal of this self-management guide is to offer hope and a better understanding of your condition. We want you to feel confident that you have what you need to take on as much responsibility for your physical and emotional health as possible. We are entirely dedicated to helping you and your family in any way to reach your wellness goals and answer any questions you may have about your health. We believe the goals of any Asthma Care Program should include all of the following:

- *Less use of quick-relief medication*
- *No symptoms or only minor symptoms of asthma*
- *Sleeping through the night without symptoms*
- *Less time off from work or school due to asthma*
- *Full participation in sports and physical activities*
- *No emergency room or hospital visits for your asthma*
- *No or very few side effects from medication*

However, it is important for you to think about your own personal goals. Ask yourself the following questions.

- What are the things that I cannot do because of my asthma?
- What asthma symptoms bother me the most?

Write your own personal goals in the space provided below:

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*Remember, you are not alone in the treatment of your illness.  
Feel free to call us with any questions that you may have.  
We believe the best way to a healthy lifestyle is through  
education and support.*

## Asthma Self-Management Plan

An asthma self-management plan will help you to prevent asthma episodes and achieve your goals. Your asthma self-management plan includes:

The following steps to help you to understand your asthma:

- Identify those things that make your asthma worse and avoid them.
- Learn about your medications and follow a daily medication plan.

The following steps for daily asthma management:

- Record your daily peak flow readings.
- Track your symptoms and early warning signs.
- Follow an asthma-self management treatment plan for an increase in symptoms or changes in peak flow readings.
- Call your doctor when your symptoms are not controlled.

# The Work Of Breathing

## BREATHING BRINGS FRESH AIR INTO YOUR LUNGS AND REMOVES STALE AIR.

The fresh air carries oxygen to your bloodstream. Your heart then pumps blood with oxygen through your body to all your organs, which need oxygen to work smoothly. The process goes something like this:

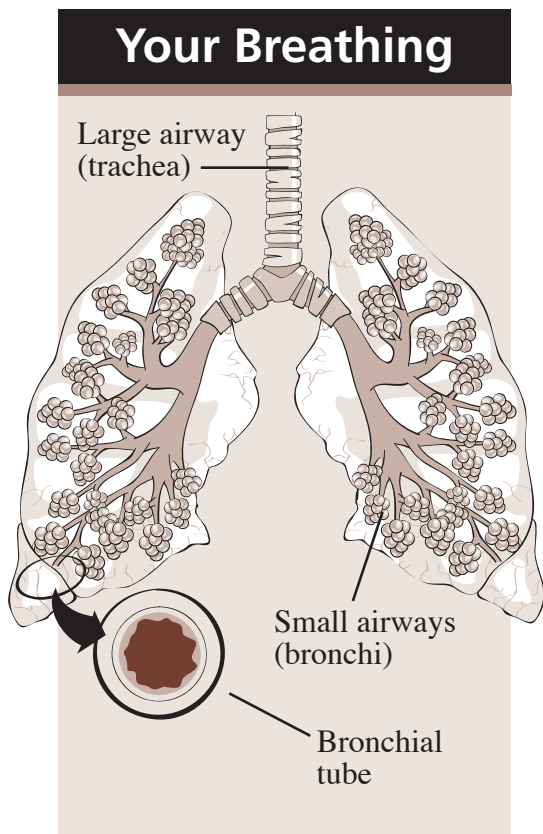
Fresh air enters through your nose or mouth, continues down your throat, and into a large airway or breathing tube that continues to branch several times into smaller and smaller tubes. Your breathing tubes are lined with special muscles that relax and contract with breathing.

At the ends of each of the smaller airways, or breathing tubes, is a balloon-like pouch that expands and collapses as you inhale and exhale.

The fresh air contains oxygen and as it enters these small pouches the oxygen is transferred to the blood stream.

As your heart pumps, blood flows through arteries to all your organs. As the blood passes by each organ, it gives up some of its oxygen to nourish the organ, and removes the waste gas that the organ produces.

When you exhale, the stale air containing the waste gas is pushed out.



## What Is Asthma?

Asthma is a disease that occurs in the breathing tubes of the lungs. People with asthma have sensitive breathing tubes that react to common everyday substances called triggers. Occasionally, people with asthma may complain of periods of difficult breathing and asthma symptoms. These periods are called asthma attacks or asthma episodes.

## During An Asthma (Attack) Episode:

- The breathing tubes in lungs become swollen (inflammation).
- The muscles that surround the airways start to tighten (bronchoconstriction).
- Extra mucus clogs the smaller breathing tubes.

All of these changes slow the air that normally flows easily into and out of the lungs. Imagine blowing air through a tube the size of a garden hose, then through a straw. The size of the tube makes a big difference in your ability to push air through it. Breathing gets harder as you try to force air through the narrow breathing tubes. While trying to breathe you may notice the following symptoms:

- Wheezing or whistling sound
- Coughing and spitting up mucus
- Chest tightness
- Shortness of breath

Some people may describe an asthma episode as not being able to get enough air in their lungs. But, the changes that occur make the breathing tubes too small to let out the stale air.

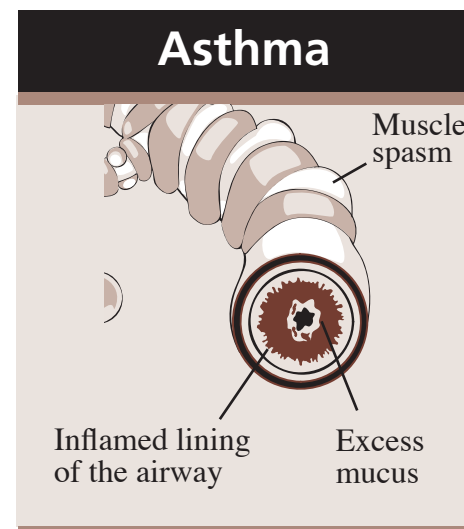
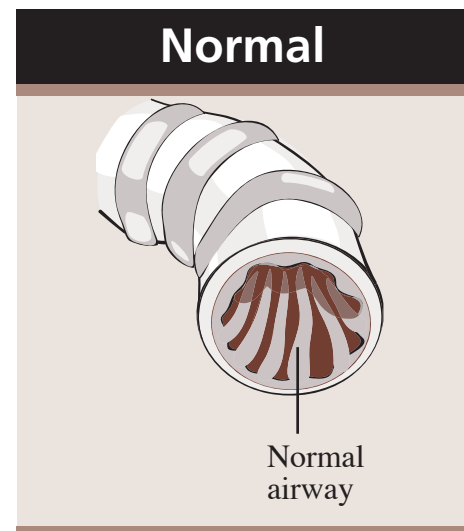
## After a Breathing Episode

The breathing tubes remain swollen and sensitive. You may feel that your symptoms have gone away and your breathing has returned to normal. However, there is no cure for the sensitive breathing tubes. But there are things that you can do to care for your asthma.

## What Are The Causes Of Asthma?

We are uncertain about the cause of asthma. However, we are certain about the risk factors that cause asthma.

- **Allergies:** According to the American Lung Association, at least 80% of children with asthma and 50% of adults with asthma have allergies.
- **Family History:** A strong family history of asthma has been linked with the development of the disease.



# Types of Asthma

THERE ARE SEVERAL TYPES OF ASTHMA.

You may have one or more of the following:

## Allergic Asthma

People with allergic asthma may have asthma symptoms when they come in contact with an allergen. An allergen is a common everyday substance such as dust, animal dander, plant pollen, and mold spores. Allergies develop when the person's immune system overreacts to these substances. It may be difficult for you to identify your allergies. A special type of test, a skin test, may be used to determine your allergies. Some common symptoms of allergies include the following:

- Itchy, watery eyes
- Sneezing
- Stuffy or runny nose
- Headache
- Dark circles under eyes

### Allergic Rhinitis

Another name for hay fever. With rhinitis the inside of your nose becomes swollen after you come in contact with an allergen. The symptoms of allergic rhinitis (runny nose, sneezing, and congestion) may be mistaken for a cold. If these symptoms last for longer than one week, it may be allergic rhinitis. Like asthma, rhinitis may make your breathing tubes more swollen. Therefore, it is just as important to control rhinitis. Uncontrolled rhinitis may lead to more problems with asthma symptoms.



### Immunotherapy

Another name for allergy shots. If you have allergies, your doctor may recommend a shot to reduce your allergy symptoms. Allergy shots are administered over several months or years. The shots are given on a weekly basis and then slowly reduced to once a month. This allows a person to gradually build up their immunity to the allergen. You may be a candidate for allergy shots if:

- You have moderate to severe allergy symptoms.
- Your symptoms occur most of the year.
- Your symptoms do not respond very well to allergy medications.
- You are sensitive to pollen, dust mites or other allergens that are not easily avoided.

Not everyone with asthma and allergies may be a candidate for allergy shots. To find out if allergy shots will work for you, talk with your doctor.

# Seasonal Asthma

Allergens or weather changes can trigger a form of allergic asthma called seasonal asthma. A person with seasonal asthma may complain of asthma symptoms at different times of the year. These people may be allergic to certain pollens or molds that are around in different seasons. Others are sensitive to the cold air in the winter or heat and humidity in the summer. Unfortunately, there is no climate, which is good or bad for all people with asthma. Cold winter days may be difficult with those people who are sensitive to cold air. However, the wintertime may be better for someone with pollen allergies. Seasonal asthma may be prevented by taking certain asthma medications before the season begins and throughout the season.

# Non-Allergic Asthma

People with non-allergic asthma do not have allergies. Their symptoms may be the same as allergic asthma but they are sensitive to other things such as smoke, emotional stress, changes in the weather, and respiratory infections. Skin test will not identify these triggers. However, you may identify what triggers your asthma by tracking the things that you come in contact with and your symptoms.

# Exercise Induced Asthma

Exercise induced asthma may occur in people who have allergic and non-allergic asthma. Exercise induced asthma symptoms are triggered by the changes in temperature and humidity that occur with activities. People tend to breathe through their mouth during physical activities. The cold dry air irritates their breathing tubes. They usually notice their symptoms during or shortly after exercise.



**It is important for all patients with asthma to remain active.**

Regular exercise helps you to develop stronger bones, muscles, and fight off infections. It also helps you to improve your mental health and self-image. By working closely with your doctor and following a treatment plan, you can control your asthma. You will also be able to enjoy exercises and other activities without fear. Below are listed some helpful hints to help you to participate in physical activities:

- Some people with exercise induced asthma may need to take their asthma medications prior to physical activities.
- It is important to avoid physical activities on days when your asthma is not in control.
- Don't exercise outside on high pollen count days or during high pollution conditions.
- Exercise at your own pace.
- Don't exercise in cold or hot weather.
- Warm up and cool down before and after exercise.
- Try different types of physical activities. Some people with asthma have less trouble swimming than running.

# Nocturnal Asthma

A person with nocturnal asthma may have symptoms that get worse in the middle of the night. During the day, our body makes certain hormones that protect against asthma. These hormones may reach their lowest levels at night and during early morning hours. Listed below are some other factors that may make asthma symptoms worse at night:

- Postnasal drip and sinus infections
- Gastroesophageal reflux disease (acid from the stomach moving backwards into your esophagus)
- Allergens in the bedroom
- A late reaction to something that you were exposed to earlier.
- Cool nighttime air

If you have more asthma symptoms at night than during the day, talk to your doctor. Your doctor may be able to identify the cause and adjust your medications.



# Triggers/Irritants You Should Avoid

## PEOPLE WITH ASTHMA HAVE SENSITIVE AIRWAYS.

Things that would not normally cause breathing problems for most people may cause breathing problems in a person with asthma. These substances that cause breathing problems are called triggers. There are two types of asthma triggers:

- An **allergen** is a substance that can trigger your allergies. These substances cause your breathing tubes to swell and excess mucus to build up.
- An **irritant** is not a substance that causes an allergic reaction. However, it can irritate your breathing tubes and trigger asthma symptoms.

**The key to self-management of your asthma is the prevention of symptoms.**

You can prevent symptoms and control your asthma by avoiding allergens and irritants. On the next several pages are some suggestions that may help you to avoid these substances. These changes will not cure your asthma. But, they may help keep your asthma episodes from starting.

## Outdoor Allergens:

### Pollen And Mold

*Problem:* Unless you live in a plastic bubble you will be exposed to trees, grass, and weeds. These items are all a source of pollen and mold allergens. You cannot completely avoid these items but you may be able to reduce your contact.

*Solution:*

- Pay special attention to local allergen reports. If there is pollen alert, stay inside, use your air conditioner, and keep the windows and doors closed.

- Prior to traveling to other places on vacation, find out what allergens are in that area.
- Avoid sources of molds (wet leaves and fallen wood).
- Avoid standing water or areas of poor drainage.
- Wear a mask for yard work.
- After outdoor activities, shower and wash your hair.



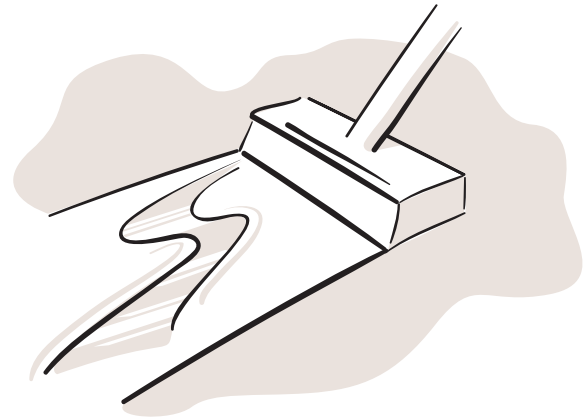
# Indoor Allergens:

## Dust And Dust Mites

*Problem:* House dust contains a lot of different things such as, small pieces of fabric, particles of food, flakes of skin, and protein from plants and animals found in the home. Dust mites need these items and humidity to survive. It is a protein in the waste product of dust mites that trigger asthma and allergy symptoms. It is not possible to completely eliminate the dust mites from your home. But, there are some solutions that can help reduce their levels.

*Solution:*

- Use a wet mop and damp cloth when cleaning to keep your home as dust-free as possible.
- Vacuum once a week using a HEPA vacuum filter.
- Have your carpeted areas cleaned regularly.
- Since vacuuming stirs up dust, ask a friend to vacuum for you. If possible, leave the house while the vacuum cleaner is in use, or wear a mask that covers your mouth and nose.
- Minimize upholstered furniture. Wood, leather or vinyl furniture will not trap dust.
- Eliminate drapes and mini-blinds as window covers. Replace with washable curtains or vinyl shades.
- Cover your pillows, mattress and box spring with allergen proof encasements.
- Wash bedding weekly in very hot water.
- Remove clutter such as stuffed animals, knick-knacks, books, and bookshelves.
- Use a dehumidifier or air conditioner to keep the humidity level below 50% in your home.



# Animals (Such As Dogs, Cats, Birds, Hamsters Or Gerbils)

*Problem:* Some people may be allergic to an outdoor allergen that their pet brings in on its fur. In other cases, they are allergic to the protein found in animal dander, urine, and saliva. These proteins are very small and they can easily travel throughout your home in the air.

*Solution:*

- You may need to find a new home for your pet or keep the pet outdoors.
- Keep the animal out of your bedroom and other areas where you spend a lot of time.
- Bathe your pet once a week.
- Vacuum your floors once a week with a HEPA filter.
- Have your carpeted areas cleaned regularly.

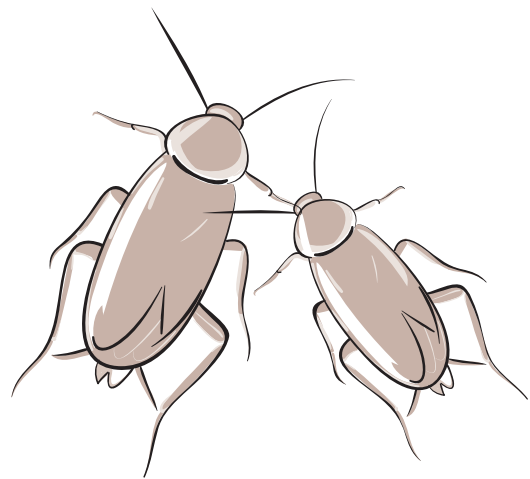


# Cockroaches

*Problem:* Like dust mites and other animals the protein in their waste is the problem. To control this problem, you must eliminate the cockroaches. Cockroaches need three things to survive; water, food, and humidity. If you eliminate these items, you can get rid of the cockroaches.

*Solution:*

- Seal areas where cockroaches may enter the home.
- Fix all leaky water faucets and pipes.
- When you are planning some time away from home, hire an exterminator.
- Do not leave food lying around.
- Wash dishes immediately after eating.
- Vacuum and sweep the floors.
- Take out garbage frequently.



# Indoor Molds and Mildew

*Problem:* Molds and mildews thrive in areas of your home that are damp and have high humidity levels. Molds and mildew send out small spores that become airborne and can trigger asthma.

*Solution:*

- The key to mold control is moisture control. Control water leakage and dampness problems.
- Use a dehumidifier to keep the indoor humidity level less than 50%.
- Three to four times a week, clean bath tubs and sinks.
- Once a month clean the drip pan under the refrigerator.
- Clean the garbage can with mild detergent.
- Do not install carpet on concrete.
- Eliminate indoor plants.
- Vent your clothes drier to the outside.
- Clean the inside and outside of your air conditioner.

# Foods

*Problem:* Food allergies are rare and primarily found in children. The most common food allergens include cow's milk, eggs, peanuts, soybean products, shellfish, corn, and wheat. Some people are allergic to the additives (sulfites) found in processed foods. These additives are most commonly found in foods such as shrimp, dried fruits, beer, and wine.

*Solution:*

- Avoid all sources of foods that contain known allergens.
- Read the food labels to check for allergens.
- Avoid processed foods.



# Medications

*Problem:* Some over-the-counter medications such as aspirin and commonly prescribed medications such as nonsteroidal anti-inflammatory and beta-blockers (Inderal propranolol hydrochloride, Lopressor metoprolol tartrate, Levatol penbutolol sulfate) may worsen your asthma symptoms.

*Solution:*

- Read the content labels of over-the-counter medication. Avoid medications that contain ingredients that you are allergic to.
- Many medications are closely related. Make sure that your doctor and pharmacists knows about your allergies.
- Carry a list of your medication allergies in your purse or wallet.



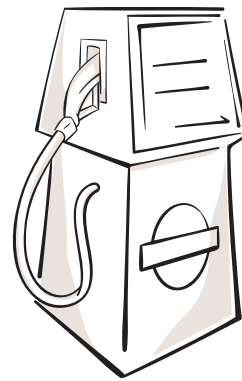
# Irritants:

## Air Pollution

*Problem:* Individuals with asthma are more sensitive to sources of indoor and outdoor air pollution. Sources of air pollution include; traffic, high ozone levels, smoke, gases, and fumes.

*Solution:*

- Stay indoors when the air is smoggy or traffic is heavy with exhaust fumes.
- Avoid areas with heavy industry or power plants.
- Avoid pumping gasoline and keep your car windows closed during fueling to keep from breathing the fumes.
- If you must use a fireplace or wood-burning stove, make sure that it's well ventilated. Do not sit close to the opening.
- Do not use kerosene heaters.
- Always use exhaust fans to remove any fumes or smoke while cooking.
- Don't permit others to smoke in your home.
- Avoid restaurants that allow smoking, or ask to be seated in a non-smoking section.
- Reserve smoke-free hotel rooms and rental cars.

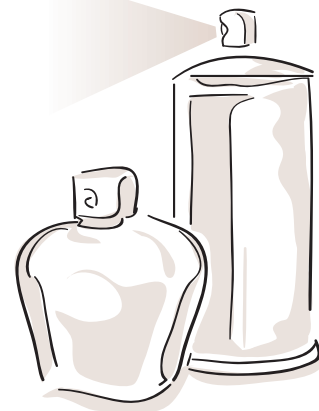


## Strong Odors

*Problem:* Strong odors from perfumes, after-shave, cologne, and cleaning products can be very irritating to your breathing tubes.

*Solution:*

- Avoid aerosol sprays—use roll-on deodorants, liquid or gel personal hygiene products.
- Avoid chemical products such as ammonia, chlorine bleach, mothballs, and other products with strong odors.



# Changes in the Weather

*Problem:* Changes in the temperature and humidity, barometric pressure, or strong winds, may cause increased symptoms in a person with asthma.

*Solution:*

- In cold weather, wear a scarf or mask over your mouth and nose.
- When it's hot and humid, don't exercise or work outdoors.



## Influenza (Flu)

The flu is a virus that strikes suddenly and spreads very easily. It is easy to confuse a common cold with the flu. Overall cold symptoms are milder and usually don't last as long. The symptoms that people commonly describe as the "stomach flu" (nausea and vomiting) are not associated with the flu. Some of the symptoms for flu include:

- Fever
- Muscle aches
- Severe weakness and fatigue
- Sore throat
- Cough

When you have asthma and you get the flu, you are more likely to develop asthma symptoms and lung infections. Prevention of lung infections from the flu is the best defense. You should get a flu shot every year as soon as it becomes available, usually in the early fall. Some people worry that the shot will give them the flu, but that is impossible because the shot is made from a form of the virus that has been killed. Antibiotics are normally not ordered to treat viruses, such as the flu.

# Acute Bronchitis

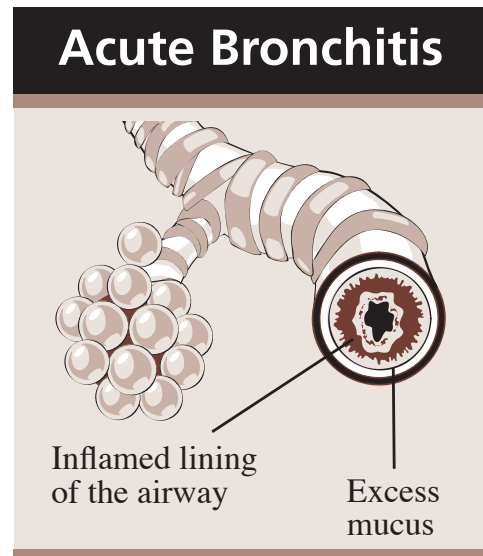
When you have asthma, sometimes viral or bacterial infections cause a reversible swelling in the lower breathing tubes and a productive cough. This condition is called acute bronchitis. Most of the time acute bronchitis is caused by a viral infection and does not respond to antibiotics. Therefore, you are forced to let the infection run its course and wait till the symptoms clear. The following symptoms may occur with acute bronchitis:

- A moist cough
- Clear or colored mucus
- Wheezing
- Shortness of breath

# Pneumonia

When you have asthma, you are also more likely to develop pneumonia, especially during the winter months. Pneumonia may occur after you are exposed to a virus or bacteria. It causes your breathing tubes to swell and fill with mucus, making it harder for you to breathe. Ask your doctor about a pneumonia shot. Most people only get the pneumonia shot once in their lifetime but you may need a booster after age 65 if you have not had one in the last five years. Symptoms for pneumonia may include:

- Fever
- Shortness of breath
- Change in amount or color of mucus



# Prevent Lung Infections

## YOU ARE AT RISK.

When you have asthma, you are more at risk for lung infections from a cold or the flu. To help prevent them, consider the following:



- Get the flu shot every fall as soon as it becomes available. If you are allergic to eggs, ask your doctor before getting this shot.
- Ask your doctor about a pneumonia shot. However, the pneumonia shot is not a substitute for the flu shot, you need both! It is safe to receive the pneumonia shot and flu shot at the same time.
- Encourage anyone who shares your home to get the flu shot.
- Try to stay away from anyone who has a cold or flu, and warn your friends and family who are not well to save a visit for a time when they are feeling better.
- Stay out of crowds, especially during the winter cold and flu seasons.
- Wash your hands often, and try not to touch your face. Remember that most germs are spread by hand-to-mouth contact.
- Eat a good, balanced diet, and exercise regularly.
- Get enough sleep.
- Stop smoking.
- Keep your lungs clear of mucus, which can trap germs.
- Keep your respiratory equipment clean and sanitized.

## Symptoms and Early Warning Signs of Infection

The earlier you seek help from your doctor, the sooner they can provide care. Signs and symptoms may be unique to each person, but include:

- Fever or chills
- Sore throat and painful neck glands
- Symptoms such as shortness of breath, coughing, wheezing, or a tight feeling in your chest that are not relieved by treatment
- A change in mucus such as an increase in the amount, odor, or color
- Feeling more tired than usual
- Stabbing chest pain when breathing

Watch your signs and symptoms and call your doctor right away if you have any concerns.

# Become Smoke-Free

## STOP SMOKING!

Cigarette smoking or second hand smoke exposure can make it more difficult for you to control your asthma. If you are not a smoker, don't start. If you are a smoker, stopping will help you to control your symptoms. It will also help you to reduce the risk of other health problems.



## There's No Good Reason To Smoke

If you smoke, think about these facts:

- Cigarette smoke contains 4,000 chemicals. Many of these are harmful and some cause cancer.
- You are twice as likely to have a heart attack as a nonsmoker.
- You are ten times more likely to get cancer than someone who does not smoke.
- Cigarette smoke is harmful to ALL that inhale it, including family members who don't smoke.

## You Will Feel Better When You Quit

When you quit smoking, almost immediately your health will start to improve. The American Cancer Society says that after:

- 24 Hours  
Your chances of a heart attack decreases.
- 2 Weeks to 3 Months  
Your circulation improves and your lung function increases up to 30%.

- 1 to 9 Months  
Your lungs increase the ability to reduce infection. Coughing, sinus congestion, fatigue, and shortness of breath decrease.
- 5 to 15 Years  
At 5 years, your chance of stroke is reduced to that of a nonsmoker. At 10 years, your risk of dying from lung cancer is about half that of a continuing smoker. At 15 years, your risk of heart disease is that of a nonsmoker.

## We Know, Stopping Isn't Easy

If you've already stopped smoking, CONGRATULATIONS! You've taken a big step in self-managing your asthma. If you haven't stopped yet, here are some tips to help you succeed when you try next time:

- The calendar is a tool. Set a date to stop perhaps a special day, like your birthday and stick to it.
- Set the stage for your "stop date."

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- Vary your routine so you can avoid the times and places you usually smoke.
  - List the reasons for not smoking and post them on your refrigerator, your bathroom mirror, and even the door you leave the house by. In short, hang those reminders everywhere!
  - Get rid of your cigarettes, ashtrays, lighters, and matches. Why leave any reminders to trip you up?
  - Empty, and thoroughly clean, car ashtrays. Fill them with some change to prevent putting ashes into the tray.
- Involve your friends and family. Tell them about your plans to stop, and ask for their support. Doing anything is always easier with a cheering section!
  - Encourage a friend who smokes to stop with you. Research has shown that quitters experience more success with a partner.
  - Join a smoking-cessation support group. Find out whether your health plan has a support group or other programs to help you. Your doctor may have some suggestions about programs in your community.
  - Call your Respiratory Therapist for information and support.

***Remember, stopping isn't easy. If you slip and smoke again, be sure to jump back on track.***

## Medications To Help You Quit

Nicotine patches, gum, nasal spray, inhalers, and pills can be used to help decrease your craving for cigarettes. However, you should always consult your doctor before using these. The following is a list of things you should know, before using medications to help you quit:

- A nicotine patch is worn on the skin, usually on the arm, and supplies small doses of nicotine to your bloodstream throughout the day.
- Nicotine gum releases nicotine as you chew it. It should be chewed for 30 minutes at a time, and only when you feel the need to smoke a cigarette.
- Nicotine nasal spray provides the fastest relief from nicotine cravings, but it requires a doctor's prescription.
- The nicotine inhaler is inhaled through the mouth. It delivers nicotine as quickly as gum, and should only be used when you feel the need to smoke a cigarette.

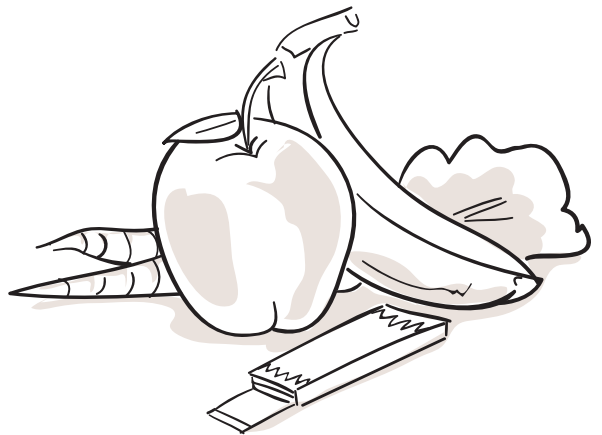
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- Pills are available with an order from your doctor. The pills do not contain nicotine but help reduce the feelings of nicotine withdrawal.
- Never smoke cigarettes while using the patch, gum, spray, inhalers or pills. Too much nicotine can cause a heart attack. Follow the directions on the package carefully.
- Be sure to report any side effects to your doctor right away.
- Don't forget; check with your health plan to determine whether the cost of the patch, gum, spray, inhaler, or pills is covered.

## Preventing Relapses

- Review your list of reasons for quitting often.
- Stay away from people who smoke or from places where smoking is allowed.
- Visit places where smoking is not allowed—theaters, museums, sports arenas, and smoke-free restaurants.
- Fight the urge to smoke by using healthy substitutes like chewing on a toothpick, fruit, vegetable sticks, or sugarless gum.
- Try activities like gardening, woodworking, or drawing that occupy both your hands and your mind.
- Reward yourself for your success now and then with a special meal or movie. Rewards also remind you of the benefits of giving up smoking.



# Create An I Can Do It Plan

**Make a personal action plan and write it down:**

To help me stop smoking, I will use:

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I will change my daily routine to avoid reminders of my smoking habit by:

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When I feel the urge to smoke, I will:

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Who can I call, if I need help?

Doctor \_\_\_\_\_

If I “slip,” what will I do?

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**Ask your doctor to answer the following questions.**

When I quit smoking, how should I expect to feel?

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If I have withdrawal symptoms, how long will they last?

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Where can I get more help, if I need it?

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**Add any others you might have in the spaces below:**

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# Medications

Your doctor may prescribe one or more types of medicine to help you breath easier or help with other medical problems. If taken correctly, these medications may help you to prevent asthma symptoms. **Remember that the key to self-management of your asthma is the prevention of symptoms.**

Also, remember to always call your doctor before taking any over-the-counter medicines, which includes herbs, vitamins, and alternative medications. Most medications may have certain side effects. Ask your doctor what side effects occur with your particular medications.

## Medication List (What They Do)

## What I Take

### Bronchodilators

Relax and open the muscles that surround the airways.

Two types of medications are used to relax airway muscles:

**Short acting** – Provides quick relief of symptoms and last from 4 to 6 hours.

**Long acting** – Last for 6 to 12 hours and should not be used for quick relief of symptoms.

### Corticosteroids

Reduce, reverse, and in some cases prevent irritation, swelling and mucus build up in breathing tubes.

There are three different forms of corticosteroids:

**Oral**

**Inhaled**

**Nasal**

### Non-Corticosteroids

Prevent swelling and mucus build up when you come in contact with an irritating substance.

There are two different types of non-corticosteroid medications:

**Anti-Inflammatories**

**Anti-Leukotrienes**

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## Medication List (What They Do)

## What I Take

### Anti-Histamines

Prevent the symptoms of hay fever allergies. (Itching, sneezing, runny nose and watery eyes).

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### Expectorants & Mucolytics

Loosen mucus so that it's easier to cough up.

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### Cough Suppressants

Stop a constant, dry cough that isn't bringing up any mucus.

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### Antibiotics

Fight infections.

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### Water Pills (Diuretics)

Get rid of any extra body water or fluids—sometimes prescribed for people with heart problems such as CHF.

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### Digitalis Drugs (Digoxin)

Make your heart beat stronger and more regularly—sometimes given to people with heart trouble.

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### Potassium/Calcium Supplements

Replace vitamins and minerals that are important to regulate your heart rate, blood pressure, and strengthen your bones. These minerals are often lost due to certain medications, such as water pills.

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### Anti-Depressants and Anti-Anxiety

Help prevent the feelings of depression and anxiety.

---

# Medication List (What They Do)

# What I Take

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## Anti-Reflux

Help to prevent persistent heartburn or acid reflux, which may cause ulcers, stomach bleeding and increased asthma symptoms.

## Medication Concerns

- Some people are afraid that they may become addicted to their asthma medication. This has not been reported as a common side effect of these medications.
- Others are concerned that their asthma medication may stop working if taken all the time. This is uncommon and may be managed by your doctor.

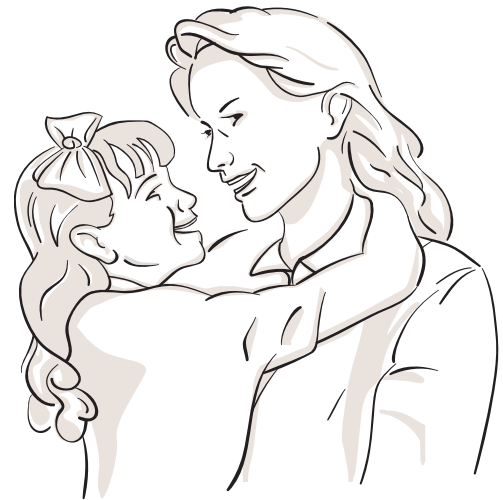
## Tips for Correct Use of Medications

- Learn your asthma early warning signs/symptoms and start taking your quick-relief medications as soon as symptoms develop.
- If your doctor prescribes anti-inflammatory or corticosteroids, take these every day. These medications decrease the swelling in your breathing tubes. Bronchodilators do not decrease the swelling.
- Monitor your medication use. If you are using your quick-relief medication everyday to control your asthma or if you use it more than 3 to 4 times in a single day, your asthma may be getting worse.

# Become An Active Partner In Your Care

Doctors appreciate a person who takes an active role in their own care. Listed below are a few helpful tips to help you take a more active role in self-management of your asthma.

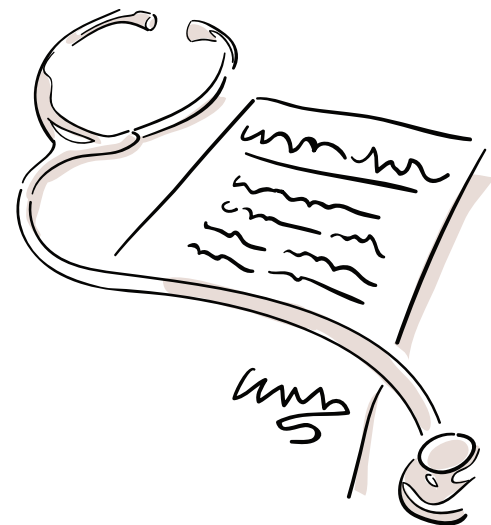
- Keep all of your appointments. Put a reminder note on your refrigerator or bathroom mirror. If you cannot keep your appointment, don't forget to call and reschedule.
- Make sure that you understand your medical condition clearly. If you don't understand something that your doctor says, speak up immediately and ask them to explain.
- Write down your questions before the visit.
- Be honest and tell your doctor about your symptoms, problems, and concerns.
- Don't rely on your memory to remember all the details of your office visit. Take notes whenever you are with your doctor or nurse.



## Managing Your Medicine

Medicine works best when you follow your doctor's instructions. Taken incorrectly, it might not help you and might even be harmful. Some tips for managing your medicine are:

- Read the label carefully before taking any medicine. Make sure you are taking the right amount of each medicine at the right time. Take the medicine the way your doctor taught you. Don't skip doses or change the amount of the medicine you take each time. It could be dangerous. If your medicine does not have a label, call your doctor, and ask for directions. Remember to write down the instructions..



– continues

- Take your medicine in a room that is well lit. Many medicine bottles look alike and they can be easily mixed up.
- Check expiration dates on your medicines. Expired medicines can hurt you. You should throw them away.
- Report any side effects you have to your doctor.
- Organize your medicines in a pillbox. These pillboxes also remind you to take your medicine at the right time each day and are readily available at any drug store.
- Do not share medicines. Sharing medicine with another person, even if he or she has the same symptoms, can be dangerous.
- Some medicines should not be taken together. Be sure that all of your doctors and pharmacists know which medicines you take to avoid dangerous side effects.
- Before your next appointment, prepare a written list of questions about your medications. Your medication questions should include the following:
  - ▶ What am I taking?
  - ▶ Why am I taking this?
  - ▶ How should I take it?
  - ▶ How long will I be taking it?
  - ▶ What are the possible side effects?
  - ▶ What other drugs or foods may interact with this?
  - ▶ What symptoms should prompt me to call you right away?
  - ▶ Should I take it with food or on an empty stomach?
  - ▶ Can I drink alcohol while taking this drug?
  - ▶ Where should I store the medication?

- If you are prescribed a new medication or same medication at a different dosage, make sure that you ask your doctor the following questions:
  - ▶ Should I continue to take all of my current medications?
  - ▶ Should I continue to take all of my current medications at the same dosage and frequency?

## Daily Medication Plan

It is important that you keep a list of daily medications that you take, including over-the-counter medications. This list will help you to take the right medication and dose at the right time. Remember to update your list as medications and dosages change.

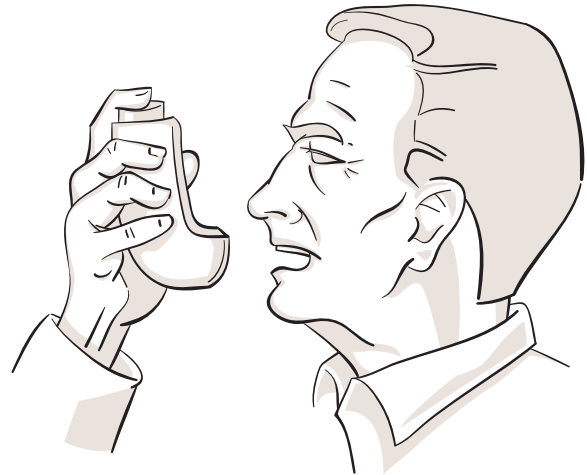




# Inhaler Instructions

Inhalers must be used the right way for you to feel the most benefit and should be used with a spacer device to obtain the maximum benefit. However, if you do not have a spacer for your inhaler, follow these steps:

- **Shake the inhaler** before use, and then remove the cap from the mouthpiece.
- **Open your mouth wide**, and place the mouth piece 1 or 2 inches from your mouth.
- **Tilt your head back slightly**, keeping your mouth wide open.
- While taking a **slow deep breath through your mouth**, press down one time on the canister.
- If you can, **hold your breath** for 10 seconds.
- **Breathe out slowly** through pursed lips.
- **Wait 2-3 minutes** before repeating the dose.
- **Put the cap back on** the mouthpiece after the final puff of medicine.
- **Rinse your mouth** with water to avoid irritation to your throat and mouth.



## Care Instructions For Your Inhaler

**DO NOT** store inhalers in a place that may have temperature changes such as the glove compartment of a car or in a refrigerator. Inhalers should be cleaned at least every 3-4 days, or sooner, if it seems blocked (releasing little or no medication).

### To clean your inhaler:

- Remove the metal canister from the plastic dispenser.
- Run **WARM** water through the plastic dispenser.
- Shake water from the dispenser and allow to air dry.
- Place the cap back on the mouthpiece.

In some cases, you may need to use your inhaler before it is completely dry.

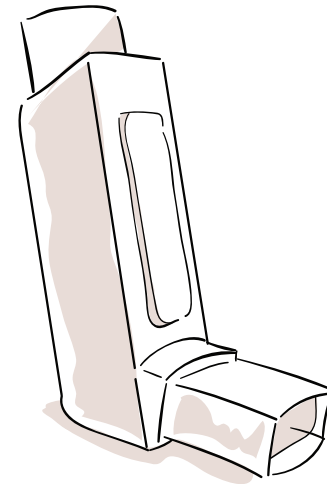
### To use:

- Shake off the excess water.
- Replace the canister.
- Test spray it in the air.
- Take your regular dose.

# Plan Ahead

Knowing how much medicine you have and how long it should last is important. Plan ahead for traveling, holidays, weather conditions, and busy lifestyles. Make sure you have a good supply at all times. Remember:

- Going without your asthma medicines, even for a day or two, can cause you to have trouble breathing. Always, always have enough on hand.
- The number of puffs available in a canister varies with the medicine. For each medicine, ask your pharmacist how many puffs are in your canister and keep track of what you take.



# Check Your Inhaler

An estimate of the amount of medicine left in your inhaler can be obtained by using the following method:

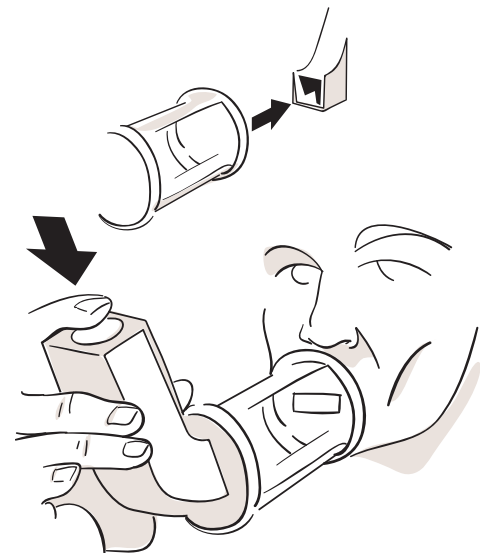
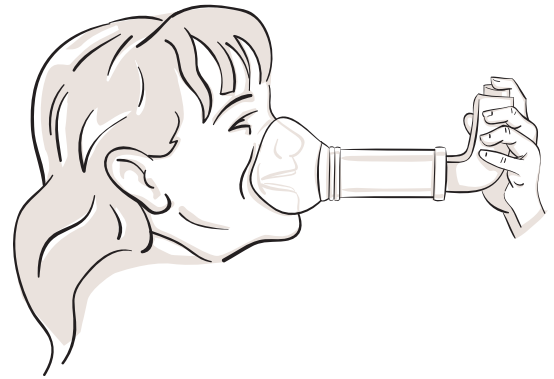
Estimate how many puffs of an inhaler medication you need for a month.

For example, if you take 2 puffs, 4 times a day for 30 days, you will use 240 puffs each month. If you know how many puffs are in your inhaler, you can determine the number of puffs that are left at any time during the month. Remember, if you take extra puffs you will need to subtract the puffs from the remaining amount in your canister.

# Spacer Instructions (with and without a Mask)

Using a spacer with a metered dose inhaler can help the medicine go deeper into your lungs, cause less mouth irritation and make the inhaler easier to use. You should use a spacer whenever possible. A spacer should not be used with a dry powder inhaler or breath-activated inhaler. To get the best results, a spacer must be used correctly. Follow the steps below:

- Remove the protective cap from the inhaler and spacer.
- Look in the spacer for dust or other unwanted objects before each use.
- Insert the inhaler mouthpiece into the end of the spacer.
- Hold the spacer and inhaler firmly, and shake 4 or 5 times.
- Breathe out normally.
- Place the mouthpiece of the spacer in your mouth between your front teeth, and seal your lips around the mouthpiece. Keeping your tongue flat and under the mouthpiece. (If you use a mask, place the mask gently over the mouth and nose.)
- Push down on the end of the inhaler, and inhale slowly.
- When you have inhaled as much air as you can, hold your breath for 5-10 seconds. (If you use a mask, keep the mask sealed on your face and breath in and out 5 to 6 times.) If the spacer makes a whistling sound, you are breathing in too fast.
- Breathe out slowly through pursed lips.
- Rinse your mouth out after using the inhaler.



## Remember to:

- Always use medicine as directed.
- Use only one puff at a time, and wait 2 to 3 minutes between puffs.
- Breathe in slowly to expand lungs.
- After use, remove the inhaler from the spacer and replace the caps on the inhaler and the spacer.
- Return the spacer to its plastic storage bag.

## Spacer Cleaning Instructions (with and without a Mask)

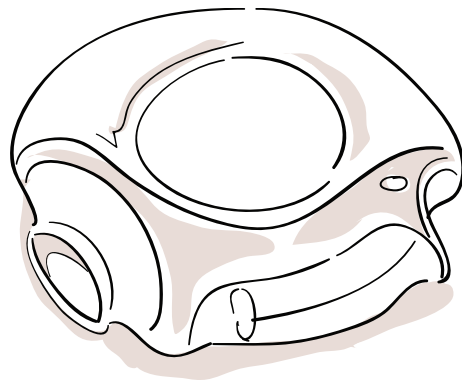
- Clean at least once each week and more often if you are having breathing trouble.
- Remove inhaler from spacer.
- Separate the parts that can be removed easily. (If you use a mask, gently remove mask from mouthpiece.)
- Soak the spacer parts in warm water with a mild detergent for 20 minutes.
- Rinse with clean, warm water.
- **Do not** boil or put the spacer in the dishwasher.
- Shake spacer parts and place them on a clean surface to air dry.
- Allow the spacer parts to completely air dry before putting them together.
- When completely dry, store spacer in a clean plastic bag.



# Dry Powder Inhaler (DPI) Instructions

If you are using a new form of inhaled medication, called a Dry Powder Inhaler, the technique is different from your MDI (Metered Dose Inhaler).

- **Load your DPI** according to the instructions.
- Turn your head to the side and breathe out normally.
- **Wrap your lips tightly** around the mouthpiece of the DPI.
- **Take a breath in very quickly** and deeply.
- If you can, **hold your breath** for 10 seconds.
- **Breathe out slowly** through pursed lips.
- **Wait 2-3 minutes** before repeating the dose.
- **Rinse your mouth** with water to avoid irritation to your throat and mouth.



## Care Instructions For DPI

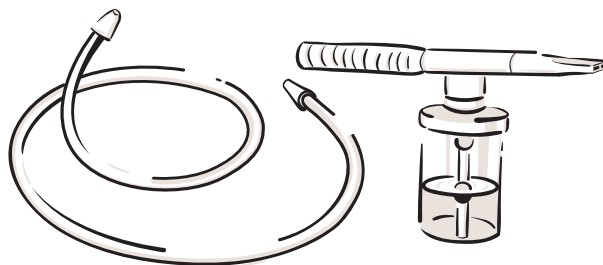
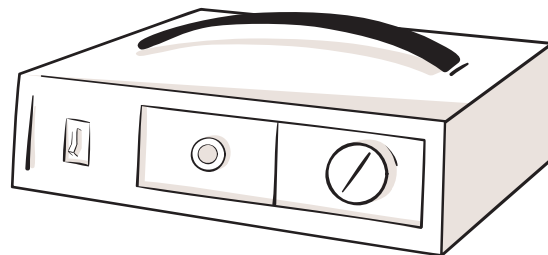
- Clean the mouthpiece of the DPI with a clean dry soft cloth.
- Keep your DPI dry. **DO NOT** place it in water.
- Do not store in areas of high humidity, such as in a bathroom medicine cupboard or above a kitchen stove.



# Nebulizer Use Instructions

Always take your nebulizer treatment either before eating or one hour after eating. Never take your breathing treatment on a full stomach. To use the nebulizer:

- Place the compressor on a table or counter at a height you can easily reach.
- Place a glass of water and tissues on the table within reach, in case you need them.
- Always wash your hands before you measure and prepare your medicine.
- Measure the medicine and put it in the nebulizer cup. Do not touch the inside of the cup.
- Attach the top to the nebulizer cup and connect the tubing to the nebulizer and the compressor.
- Turn on the compressor. A fine mist will flow out through the mouthpiece.
- Place the mouthpiece securely in your mouth between your teeth and close your lips around it to make an airtight seal.
- Breathe in naturally through the mouthpiece, then hold your breath for 1 to 2 seconds. Remove the mouthpiece, and exhale slowly through pursed lips. This procedure causes the medicine to go deep into your lungs.
- Tap the side of the nebulizer cup every 2 to 3 minutes.
- Continue the treatment until the nebulizer cup is empty. This may take 15 to 25 minutes.
- Turn the compressor off, and place a cover over the machine when you have finished.
- Cough to bring up any mucus.



# Nebulizer

## Cleaning Instructions

Cleaning gets rid of germs and prevents infection. Cleaning also helps your nebulizer last longer.

Your compressor and nebulizer kit should come with directions for cleaning, which may be different from those given here. Please check equipment packaging for specific cleaning directions.

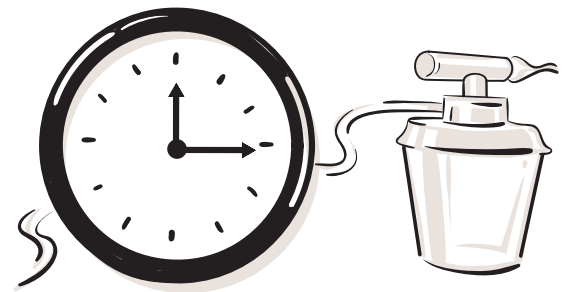
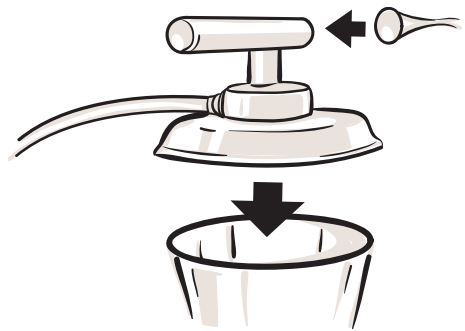
Maintaining your nebulizer and equipment is simple. Just follow these steps:

### After each use:

- Rinse the mask or mouthpiece and T-shaped part in warm running water for 30 seconds.
- Allow to air-dry on a clean surface.
- When completely dry, store in a clean plastic bag.

### Once daily:

- Wash the mask or mouthpiece and T-shaped part with a mild dishwashing soap and warm water.
- Rinse under a strong stream of warm water for 30 seconds.
- Allow to air-dry on a clean surface.
- When completely dry, store in a clean plastic bag.
- **Do not boil** or put nebulizer in the dishwasher.



### Once each week:

- After washing and rinsing the mask or mouthpiece and T-shaped part, soak them for 30 minutes in a solution of one part distilled white vinegar and two parts water.
- Rinse under a strong stream of water for 30 seconds.
- Allow to air-dry on a clean surface.
- When completely dry, store in a clean plastic bag.

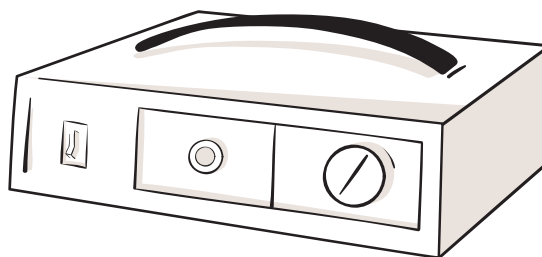
### Once a month:

- If you've been using your nebulizer every day, discard the old nebulizer kit and tubing. Call your homecare supply company for a new kit. Then use the new kit with your compressor.

# Compressor Safety:

Follow these rules below to operate your compressor safely.

- Keep your compressor clean and dry.
- **Do not** attempt to clean your compressor by placing it in water.
- Call your medical equipment provider to report all problems.
- **Do not** attempt to repair a compressor that is broken or not working properly.



# Peak Flow Meter Monitoring

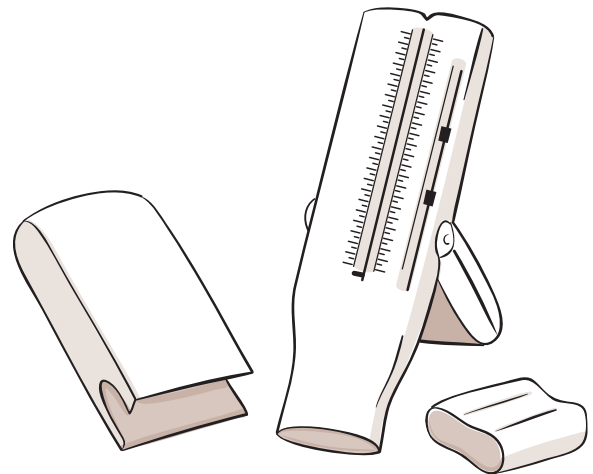
A peak flow meter is a device that measures how fast and hard you can blow air out of your lungs. The more narrow your breathing tubes (due to swelling, mucus, tightening) the slower the air comes out of your lungs. You can think of peak flow meter as a thermometer for your lungs. A thermometer is used to detect a fever and a peak flow meter is used to detect breathing problems.

## Benefits of Peak Flow Monitoring:

- It can help you to track what triggers are making your asthma worse.
- It can help you to determine if you need emergency care.
- It may help you to determine if your lungs are tight before you have symptoms.
- It can help you to determine if your treatment program is working.

## Peak Flow Meter Instructions:

- Move the indicator to the base of the peak flow meter.
- Hold the peak flow meter at the end opposite the mouthpiece.
- Always stand up.
- Take a deep breath to fully inflate your lungs.
- Put the mouthpiece of the peak flow meter in your mouth, between your teeth, over your tongue, and close your lips tightly around it.



- With as much force as possible, blow out as fast as you can. (Just imagine that you are trying to blow out all of your the birthday candles in one breath).
- Read the number at the level of the indicator.
- Repeat these steps two more times.
- Record your highest number on the chart.

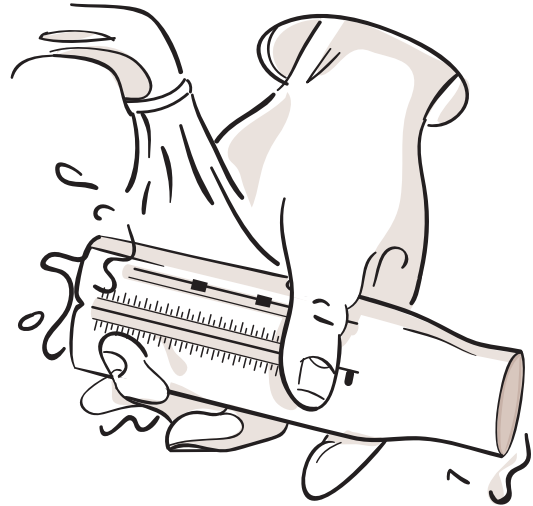
### Remember:

- You must give it your best effort. Otherwise, it will not be accurate.
- Record your highest peak flow reading in the morning and again in the late afternoon.
- Record your highest peak flow reading before and after using quick-relief medicine.

# Peak Flow Meter Cleaning

Once a week or more often if you are having asthma symptoms, wash your peak flow meter.

- Wash the peak flow meter in warm, mild soapy water.
- Rinse thoroughly.
- Allow it to air dry before your next measurement.
- **DO NOT** attempt to clean the inside of the peak flow meter with a brush.
- **DO NOT** boil or put the peak flow meter in a dishwasher.



## “Best” Peak Flow Readings

People with asthma may be different. You may have a different type of asthma; symptoms, triggers, and your peak flow readings may be higher or lower than someone else of the same age and height. Therefore, it is important for you to find out your “Best” peak flow reading. Your “Best” peak flow reading is the highest reading you can achieve.

## Determining Your “Best” Peak Flow Number

- Use your peak flow meter at least twice a day for 2 to 4 weeks.
- Record your highest readings in your Best Peak Flow Chart.

## To Determine Your “Best” Peak Flow Use The Following Formula:

Take your three highest readings add them together and divide by three. For example, if you’re three highest readings are 300, 310 and 320, when you add those three numbers together your base number is 930. Divide the 930 by three and your “Best” reading is 310. A child’s “Best” peak flow readings will change as he or she grows. Therefore, you may need to recalculate this reading every six months.







# Peak Flow Zones

Once your “Best” peak flow number has been determined, your doctor or respiratory therapist can calculate your peak flow zones. These zones will help you to determine any changes in your peak flow readings. To simplify this process the National Asthma Education and Prevention Program has developed a system in which the zones correspond to the colors of a traffic light. This will help you to determine any changes in your peak flow readings. Your doctor may also give you specific instructions on what to do for changes in your peak flow readings.

**Green Zone:** This is a signal that your asthma is in good control.

**Yellow Zone:** This is a signal that means your asthma is not in control and you should proceed with caution. Your doctor may give you instructions for your quick-relief medications and may even instruct you to call his office.

**Red Zone:** This signals an alert. Your doctor may give you instructions to call for medical care immediately.

# Your Early Warning Signs and Symptoms

Even though some people describe their asthma episodes as asthma “attack.” Asthma episodes very seldom occur without warning. Most people can tell when an asthma episode is coming. Think back to your last asthma episode. Did you have any early warning signs or symptoms? Early warning signs are those small changes that occur that may be associated with worsening asthma. Symptoms are signs that definitely indicate that you are having an asthma episode. It is important that you recognize both early warning signs and symptoms.

When these signs and symptoms are present, you can follow the instructions that your doctor has given you to manage your asthma. This may prevent more serious problems from starting. Read over the following list and check the signs and symptoms that apply to you. Share them with your family, friends, and doctor. Remember to update your list as others are identified.

- Decreasing peak flow
- Tightness in chest
- Out of breath easily
- Tired
- Scratchy, or sore, throat
- Stuffed-up, or runny, nose
- Restless
- Coughing
- Breathing faster
- Shortness of breath

- Itchy, watery eyes
- Sneezing
- Headache
- Itchy back of neck
- Difficult speaking
- Color change in your face
- Other (signs that you identify)

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# Your Asthma Symptom Self-Assessment Chart

The asthma self-assessment chart may be used to track triggers, early warning signs, symptoms, and medication needs. After reviewing the information that is recorded in the chart, your doctor may make changes in your medication or asthma treatment program.

You may use the charts that we provide for you in this booklet (see next page), or you may create your own. Your chart should remind you to record the following:

- Date
- Symptoms
- Use of quick-relief medications
- Triggers that cause asthma symptoms
- Activity limitations because of asthma









# Your Peak Flow Meter Self-Assessment Chart

The Peak Flow Meter Self-Assessment chart may be used to track triggers, early warning signs, symptoms, and medication needs. After reviewing the information that is recorded in the chart, your doctor may make changes in your medication or asthma treatment program.

You may use the charts that we provide for you in this booklet (see next page), or you may create your own. Your chart should remind you to record the following:

- Date
- Symptoms
- Daily peak flow readings
- Use of quick-relief medication
- Triggers that cause asthma
- Activity limitations because of asthma











# Asthma Self-Management Treatment Plan

## STEP-BY-STEP INSTRUCTIONS ON HOW TO MANAGE YOUR SYMPTOMS

Your doctor may give you an asthma self-management treatment plan. This plan is based on your history of asthma symptoms and current findings. The treatment plan gives you step-by-step instructions on how to manage your symptoms on a daily basis, as well as when you are feeling increased symptoms. Because the dose and frequency of medications may differ from routine, be sure that you understand these instructions.

### Remember:

Quick-relief medications do not treat swollen, inflamed airways. Medications that reduce swelling will not stop an attack of wheezing, coughing or choking. Used together,

these medications compliment each other in a treatment plan. Used separately, they have very important, but different roles. Treatment plans are matched to the individual needs of the person. The goal is to keep the daily use of the quick-relief medication to a minimum by using other measures. These other measures include avoidance of asthma triggers and sometimes the use of anti-inflammatory medications.

## When to Seek Help

Call your doctor if:

- Your peak flow does not improve after you have taken your quick-relief medications.
- Your symptoms do not improve after you have taken your quick-relief medications.
- When there is a change in your phlegm, such as the color, amount, or odor.
- If you experience difficulty breathing while lying down.
- When you notice that you are more tired than usual.
- If you notice swelling in your ankles.





# Asthma Peak Flow Meter ActionPath™

## Green Zone

### Instructions

(If your peak flow is

\_\_\_\_\_

or higher)

Take these medications daily for your asthma

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

If you are having symptoms and your peak flow is \_\_\_\_\_ or higher, take \_\_\_\_\_

Call your doctor if \_\_\_\_\_

Take the following medications before exercise: \_\_\_\_\_

If you are having symptoms or your peak flow reading is below \_\_\_\_\_ call your doctor.

1. Continue to take your Green Zone medications.

2. Take the following \_\_\_\_\_

3. Check your peak flow readings

If your peak flow is \_\_\_\_\_ or higher, call your doctor for follow-up instructions TODAY and continue taking

\_\_\_\_\_

If your peak flow is less than \_\_\_\_\_, call your doctor NOW and continue taking

\_\_\_\_\_

Add the following: \_\_\_\_\_

1. Take the following IMMEDIATELY \_\_\_\_\_

2. Check your peak flow readings

If your peak flow is \_\_\_\_\_ or higher, call your doctor NOW.

Add the following: \_\_\_\_\_

If your peak flow is less than \_\_\_\_\_ repeat \_\_\_\_\_

Add the following: \_\_\_\_\_ and call 911.

## Red Zone

### Instructions

(If your peak flow

is less than

\_\_\_\_\_ )

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Height: \_\_\_\_\_ Weight: \_\_\_\_\_

Doctor's Name: \_\_\_\_\_ Doctor's Phone Number: \_\_\_\_\_ Emergency Phone Number: \_\_\_\_\_

# Asthma ActionPath™ for Increased Symptoms

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Height: \_\_\_\_\_ Weight: \_\_\_\_\_ Age: \_\_\_\_\_

Doctor: \_\_\_\_\_ Phone # \_\_\_\_\_

## Daily Medications

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## Action For Increased Symptoms

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## Additional Instructions

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# Controlling Your Breathing

## WHAT SHOULD YOU DO?

People with asthma are often frightened by feelings of being out of breath or not being able to catch their breath. If this has happened to you, you know that gasping for air and breathing faster doesn't help. What should you do? Try these simple techniques:

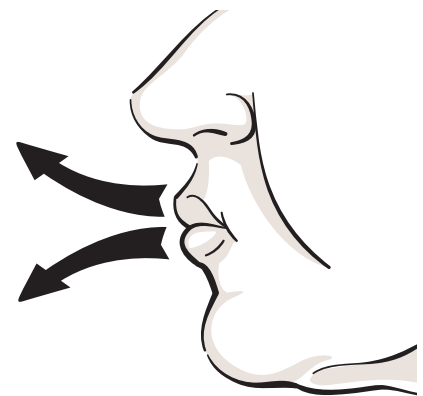


## Pursed-lip Breathing

Pursed-lip breathing helps breathing tubes to stay open while you breathe out, allowing you to push out stale air that is trapped in the lungs. It may also help slow you down if you are breathing too fast.

- Relax your neck and shoulders and breathe in slowly through your nose. Keep your mouth closed. (If you can't breathe through your nose, breathe gently through your mouth.)
- Purse or pucker your lips as if you were going to blow out a single birthday candle.
- Breathe out slowly and gently through your pursed lips. Breathe out 2-3 times longer than when you breathed in. You may hear a soft whistling sound. Make sure that you don't blow out your imaginary candle. If you think you have, you're still breathing too hard!

With practice, this technique can become simple and natural. You can use it any time you feel short of breath, even during physical activity.



# Don't Ignore Your Emotional Health

## KEEPING PEACE OF MIND

Living with asthma and changing your lifestyle can produce feelings of frustration, anger, and depression. Below is a list of some actions you can take to make yourself feel better.

## Gain Control Over Your Emotions

Feelings of anxiety, depression, and anger are normal. Accept these feelings, and try to work through them. Try writing in a journal, talking with a friend or family member, and joining a support group. You may gain more control over your emotions, once you learn to accept how you feel about having asthma.

## Think Positive

It's hard to stay positive when you focus on the negative. Remember that you have the power to change! Having a positive outlook on life can improve your health. Here are some tips to help you stay positive:

- **Let laughter be your best medicine.** You should share your laughter with the world.
- **Enjoy the small things.** We sometimes tend to overlook the joy that is all around us. Take time each day to reflect on the things that bring you happiness.
- **Set goals.** Use your imagination and be creative with your goals. You could grow an indoor herb garden, learn to speak a foreign language or learn to play an instrument – the possibilities are endless. Be true to yourself and try your best to achieve each goal.

## Talk To Others

It is important to talk to others. Family, friends, teachers or coworkers can give you support if they know the facts. Choose the right time to tell each person about your asthma. The best time is at the beginning of a new school year, new job, in private, when you are not having breathing problems.

## Anxiety And Panic Disorders

Anxiety and panic disorders are unexpected episodes of intense fear. People who have anxiety or panic attacks often experience periods of chest pain, rapid heart beat, shortness of breath, dizziness and abdominal pain. If you are having periods of these symptoms, report them to your doctor. The feelings of anxiety and panic disorders are similar to symptoms of life threatening conditions. Your doctor will need to see you in person to find the cause of the attacks.

## Stay In Control

It is impossible to avoid all the situations that may trigger an attack. Develop a plan that will help you deal with the episode. Take control of your attacks:

- If you feel a panic attack coming on, stop what you are doing and get in a comfortable position.
- Do some deep breathing exercises to control your breathing.
- Relax your muscles.
- Control your thoughts. Acknowledge that you won't die from a panic attack.

# Asthma and Nutrition

Good nutrition helps the body to prevent infection and to reduce the symptoms of asthma and allergies.

- *A Healthy Diet* - A healthy diet includes fresh fruits, vegetables, nuts, seeds, and whole grains. A diet rich in vitamin E may improve lung function.
- *Food Labels* - If you have allergies and asthma, it is always a good idea to read food labels. Know your triggers and avoid them.
- *Know What You Need* - If you have a food allergy that eliminates an entire food group from your diet, talk to your doctor about the vitamins or mineral supplements you might need.

**Omega-3 fatty acids** may reduce asthma symptoms by decreasing swelling and irritation in the breathing tubes.

- *Foods with Omega-3 Fatty Acids* - Omega-3 Fatty Acids are found in oily fish such as salmon, tuna, mullet, and rainbow trout. Other sources include flaxseed, soybean oil, canola oil and dark green vegetables.

# The Need for Fluids

You can reduce asthma and respiratory allergy symptoms by thinning the mucus in the lungs. Just as you would think, drinking water is the answer.

# The Need for Calcium

Many people with asthma use corticosteroids to help them breathe comfortably. High doses over many years can increase your risk of developing osteoporosis. Osteoporosis is a bone disease that leads to bone loss and fractures. You can prevent osteoporosis by taking calcium.

You can decrease your risk of osteoporosis by increasing calcium and vitamin D in your diet. Calcium is a bone builder. Vitamin D helps the body to absorb calcium.

- *Foods with Calcium* - Foods rich in calcium include dairy products, tofu, raisins, sardines, and salmon with bones and dark green, leafy vegetables like broccoli, chard, and collards.
- *Can You Get Enough Calcium?* - Unfortunately, some people are either allergic to dairy products or unable to digest them. As we get older our ability to absorb calcium decreases. Sometimes other things that we eat, such as large amounts of proteins and fiber, can also deplete the body's calcium.
- *Calcium Supplements* - Calcium supplements can help you to reach your recommended daily intake. Talk to your doctor because calcium supplements can interfere with other medications and can cause abdominal side effects. Start with lower dosages and work your way up.



# Special Considerations

## Gastroesophageal Reflux Diseases (GERD)

If your asthma symptoms are poorly controlled despite treatment or if you seem to have more asthma symptoms at night, you may have another condition called GERD or reflux. GERD occurs when a muscle in our stomach allows the stomach acid to back up in our esophagus. This can cause your asthma to worsen.

If you are having any of the following symptoms, please discuss these signs with your doctor.

- Frequent heartburn
- Bitter or sour taste in mouth
- Hoarseness
- Persistent unexplained cough
- Chest pain
- A worsening of your asthma symptoms at night

Once your doctor has determined that you have GERD, your doctor will decide on a treatment for your condition. With treatment, you may experience a significant improvement in your breathing. Here is some treatment options that your doctor may use to treat your GERD:

- Medications that reduce acid
- Elevate the head of the bed 6 or more inches.
- Avoid eating or drinking 3-4 hours before you go to bed.
- Avoid certain foods (caffeine, chocolate, citrus, mint, carbonated beverages) and certain medications.
- Avoid tight garments
- Quit smoking
- Avoid alcoholic beverages
- Loose weight

# Asthma in Special Groups

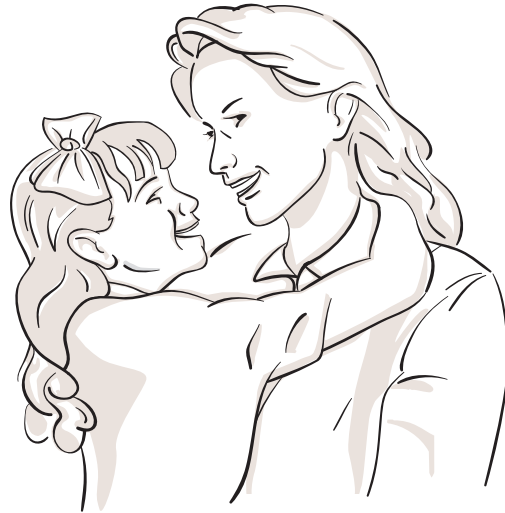
## A Note To Parents Who Have Children With Asthma

We know that when you have a child with asthma, you may be faced with some scary moments. However, with the proper treatment and care your child can live a normal life. To help you to understand more about their asthma and duties that you may need to perform, please keep in mind the following guidelines:

- If your child has asthma, please make sure that you work with their doctor to develop a treatment plan as soon as possible. This may include a list of daily medications. It will also include instructions for managing increased symptoms.
- Keep a diary. Jot down everything that you learn about your child's triggers and symptoms. Remember that these may change depending on the season.
- Make sure that your child is taking their medications daily. Asthma is condition that requires daily treatment. It is not a condition that will go away. If asthma is not treated, it can cause serious changes in the breathing tubes known as airway remodeling. These changes may cause permanent damage to the lungs. We know that some of the medications may cause concern. However, untreated asthma is a bigger concern.
- Your child may spend most of their day in school or day care. It is very important that teachers and other caregivers understand your child's asthma and treatment plan.
- For older children, it is important that they become involved in their own care. Talk to your child about his or her asthma and explain what to do during an asthma episode. Review the treatment plan with your child, so that both of you feel confident that they can handle their symptoms.

– continues

- Encourage your child to carry his quick-relief medication and use it as needed. Most children eight years of age or older can do this.
- Encourage your child to be active. If their asthma is well controlled, they should be able to participate in just about any activity that they choose. Exercise is also important for your child's health and self-esteem.
- If you smoke cigarettes, do not smoke around your child. Cigarette smoke will make your child's asthma symptoms worse.



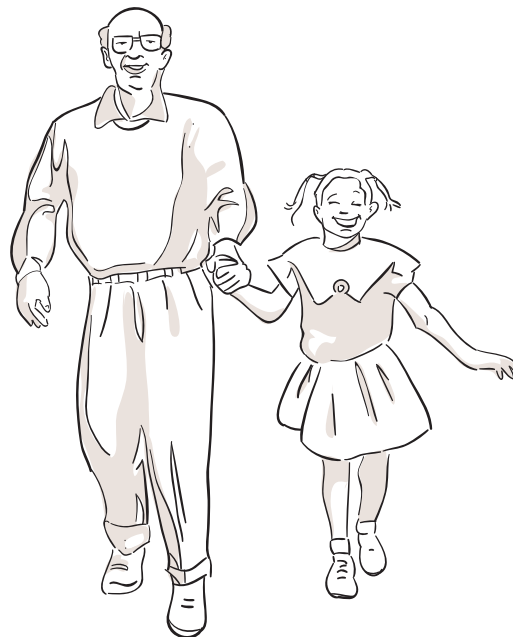
## Asthma in Infants and Children

It is a difficult task diagnosing asthma in infants. Most asthma symptoms in infants are caused by viral infections that may cause any infant to wheeze. So, most doctors will not diagnose an infant with asthma until the child has more than two episodes of wheezing in one year.



## Will Your Child Outgrow Asthma?

There is no cure for asthma and children cannot outgrow it. It is still difficult to predict what will happen as the infant or child grows older. The wheezing episodes that are triggered by certain viruses may go away. In some children, their symptoms will disappear as their breathing tubes grow, allowing them more room for air. These symptoms may later return in adulthood. With proper treatment and medication, your child can live a normal life.



# What should I look for?

It is also difficult to determine the severity of an asthma episode in infants. In an older child, a peak flow meter may help to determine asthma problems. Unfortunately, an infant or small child cannot use a peak flow meter. Parents must learn and pay close attention to their child's asthma signs and symptoms. The lungs of a child do not function like the lungs of an adult. As a result, a severe asthma episode can become serious very quickly. Watch your infant closely for signs and symptoms that he or she may need emergency care

## Signs To Look For In Infants And Small Children Include:

- The breathing rate increases more than 40 breaths per minute while the infant is sleeping. (To calculate breathing rate, count the number breaths in 15 seconds and multiply by 4)
- Suckling or feeding may stop.
- Rib retractions (The skin between the infant's ribs pulls tight and sinks in with breathing)
- The child's chest may get bigger.
- Skin color may change (pale or red face, fingernails turn blue).
- Cry may change in quality (softer and shorter).
- Nasal flaring (Nostrils open wider with breathing)
- Wheezing and coughing are starting to get worse, even after quick-relief medications.
- Grunting

## Signs In Older Children Are:

- They may become tired easily or slow down while playing.
- The child has trouble walking or talking.
- Older children may also avoid activities.
- He or she may complain that chest or stomach hurts.

## What to Do During an Asthma Episode

- **Become aware of your child's early warning signs and act quickly.** Follow the instructions your doctor has given you for dealing with symptoms.
- **Stay calm and don't panic.** Panic may cause fear in your child and make the asthma episode worse.
- **Be prepared.** Do not wait till the last minute to handle an emergency. Have a plan of action that includes such things as:
  - Find out the location of your doctor's office and hospital.
  - Plan out how you will get there (vehicle and route).
  - Make arrangements for someone to care for your other children.
  - Take copies of your insurance card, list of medications that your child is taking, and other medical information.

# Create an Asthma Free Environment

- **Avoid triggers and substances** that irritate their small breathing tubes. In homes where one or both parents smoke, children with asthma have more respiratory infections and asthma symptoms.
- **Eliminate foods from your home** that causes allergy symptoms in your child or infant.
- **Encourage frequent hand washing** to cut down on infections.

## School and Day Care

Many children with asthma are embarrassed about their symptoms and the need to take medications. Parents must communicate their child's needs to the teachers and coaches. Both parties will need to work together to create a supportive environment for the child with asthma. Everyone who is responsible for the care of your child should know the child's asthma early warning signs. We suggest that parents:

- Provide a copy and review the asthma Action-Path™ with all care providers.
- Let all care providers know the steps to take in case of an asthma episode.
- Develop a clear procedure with the child and teachers for handling school work missed due to asthma.
- Inform the child's teachers that a student with asthma may feel:
  - Drowsy or tired
  - Different from the other kids
  - Anxious about taking medication
  - Embarrassed about their asthma

- Let the teacher know the possible side effects of asthma medications and how they may impact your child's performance in the classroom.
- Let the teacher know the possible side effects of medicine that require a doctor's attention.
  - Nervousness
  - Nausea
  - Jitteriness
  - Hyperactivity
  - Drowsiness
- Work with the teacher to reduce allergens in the classroom. Common allergens found in the classroom include:
  - Chalk dust
  - Animals
  - Strong odors (perfumes, paints)

## Deciding to Go to School/Day Care

It is important to know when to keep your child home from school or day care. It is also important to know when to let your child attend. You can probably send your child to school or day care if they have any of the following symptoms:

- A little wheezing that goes away after taking medication.
- He or she is able to do their regular activities.
- No extra effort is needed to breathe.

You probably should keep your child home from school or day care if he or she is having any of the following symptoms:

- Infection
- Sore throat
- Body temperature >101 F (taken orally)
- Face hot and flushed
- Wheezing or coughing that continues one hour after taking medication.
- Breathing with difficulty or breathing very fast

## Asthma and Teens

Growing from a child into an adult can be difficult enough, causing problems in relationships with parents and other adults. The teen years are filled with struggles and the desire to gain more independence. Other added pressures such as the exploration of sex, drugs, tobacco, and alcohol add to increased difficulties. Peer pressure and parents' opinions all have a great influence on what choices they make. How a teenager responds to these new pressures can have a direct effect on the management of asthma.

A teenager's search for freedom can also impact their asthma. A concerned parent that constantly reminds them to take medication can seem like nagging and cause problems. Getting the teen involved in his or her own care is often a way of letting the teen experience more independence and improve their asthma management. This often depends on the teen and the doctor developing a relationship. It may be necessary for you to allow your teenager to see the doctor on his or her own. Having an older brother or sister drop off the teen at the doctor's office is very effective way of letting the teen know that they're going to be responsible for their asthma. Parents should first explain these arrangements to the teen's doctor. Choose a doctor who is good at communicating with teenagers. After each visit, make sure that you review and understand the asthma management instructions that were developed by the doctor.

# Asthma in Seniors:

Some people do not develop asthma until their senior years. Seniors who have asthma that is poorly controlled may describe their health as being poor, and have a more difficult time with daily activities. Even though lung function does decrease after the age of 40, there are simple things seniors can do to improve their asthma symptoms.

- **Reduce exposure to indoor triggers** such as older furnishings, high indoor humidity, mold, non-encased mattresses, cockroach exposure, and furred pets.
- **Report asthma symptoms to your doctor.** Older persons may feel that the symptoms that they are having are part of the normal aging process. Therefore, their symptoms may go unreported. Many seniors are not taking the proper medications to control their allergy and asthma symptoms. They may rely too heavily on quick-relief medications.
- **Get a complete check-up.** You may have other health problems that affect your asthma.
- Some physical problems (eyesight, arthritis, and poor hearing) may make it difficult for you to follow instructions or use medical devices. Talk to your doctor and respiratory therapist about these problems. There are medical devices that may make it easier for you to take your medications.
- Speak to your doctor about preventing lung infections by getting flu and pneumonia shots.
- If you have problems remembering instructions, write them down.
- Eat a healthy well-balanced diet
- Stay as active as possible



# Asthma in Pregnancy:

## ASTHMA SYMPTOMS MAY BECOME WORSE DURING PREGNANCY.

There are things to be aware of if you have asthma and are pregnant. Asthma symptoms may become worse during pregnancy for one-third of pregnant women. These symptoms may be most severe between 29 and 36 weeks of pregnancy. If your asthma is not under control, the health of your baby as well your own health may be affected.

## What Can You Do To Better Manage Your Asthma?

- Tell your doctor or nurse that you have asthma.
- Make regular visits to your doctor for your asthma and the care of your unborn baby.
- Discuss with your doctor the medicines that you take for your asthma.
- Continue to take your asthma medication. Most medicines for asthma are safe to take when you are pregnant as long as you follow your doctor's advice.
- **REMEMBER:** If your asthma is not under control, your lungs are not getting enough oxygen to your baby. Not giving the baby oxygen is a far greater risk than taking the asthma medications.
- Try not to take over-the-counter medications while pregnant. Over-the-counter asthma/allergy and cold medications contain drugs such as brompheniramine, epinephrine, phenylephrine, and phenylpropanolamine that break up or decrease extra mucus. These medications may be harmful to your baby.
- Avoid certain antibiotics, such as tetracycline.
- Don't receive live virus vaccine. Killed virus vaccines are acceptable.
- Do not begin allergy shots during pregnancy. However, if you were getting them before your pregnancy, they may be continued under the supervision of your doctor.
- Improve all actions you take to avoid or reduce contact with triggers of asthma.

## Don't Worry

- Wheezing during labor and delivery is rare.
- Most asthma medicines will not harm your baby.
- If you breast feed, asthma medicines will not cause problems for your baby.

# Acknowledgements

This booklet and program contain information adapted from:

- The Global Initiative for Management of Asthma. A Practical Guide for Public Health Officials and Health Care Professionals. National Institutes of Health and World Organizations, 1998.
- The National Asthma Education and Prevention Program Expert Panel Report 2, Guidelines for the Diagnosis and Management of Asthma. National Institutes of Health. Bethesda MD, 1997.
- Peak Performance USA, A Program for Managing Asthma in the School. American Association for Respiratory Care, Dallas, TX.

## Information

The information contained in this booklet is for general reference purposes only. This booklet is not intended as a substitute for professional medical care. Only your doctor can diagnose and treat a medical problem.

Nurtur's policy prohibits staff members from actively advertising, marketing, or promoting specific products or services to our members or their physicians when discussing the member's health condition.

## Medical Review

The content of this booklet was reviewed by Woody Kageler, MD, FACP, FCCP.

## Special Thanks

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# National Organizations

For information and answers to questions you have about Asthma, contact any of the following groups:

## **Nurtur**

**1-800-293-0056**

**[www.nurturhealth.com](http://www.nurturhealth.com)**

## **American Lung Association**

**1-800-LUNG-USA (1-800-586-4872)**

**[www.lungusa.org/](http://www.lungusa.org/)**

## **National Heart, Lung, and Blood Institute**

**NHLBI Information Center**

**P.O. Box 30105**

**Bethesda, MD 20824-0105**

**[www.nhlbi.nih.gov/health/index.htm](http://www.nhlbi.nih.gov/health/index.htm)**

## **American Academy of Allergy, Asthma and Immunology**

**[www.aaaai.org](http://www.aaaai.org)**

## **Asthma and Allergy Foundation of America**

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

## **Allergy and Asthma Network, Mothers of Asthmatics Inc**

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

## **American College of Allergy, Asthma and Immunology**

**[www.allergy.mcg.edu](http://www.allergy.mcg.edu)**



## COMPLETE THE CARD BELOW

The card printed below is for you to provide medical personnel with important information about yourself and medicines that you take.

Once you complete the information, simply cut it out along the dashed line, fold it along the dotted lines, and place it in your wallet or purse. Carry it with you at all times.

My name: \_\_\_\_\_

My doctor's name: \_\_\_\_\_ Phone #: \_\_\_\_\_

Emergency Contact's name: \_\_\_\_\_ Phone #: \_\_\_\_\_

I have the following health conditions: Asthma \_\_\_\_\_

Allergies:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I take these medicines:

Medicine Name	How Much?	How Often?
1. _____		
2. _____		
3. _____		
4. _____		
5. _____		
6. _____		
7. _____		
8. _____		

## When to Call Us

- You have an increase in symptoms
- You receive new medications
- You have questions concerning your breathing
- Your phone number, address or Primary Care Physician has changed
- You have asthma and your peak flow drops into your **yellow** zone or **red** zone



