ASTHMA CARE

Your guide to managing asthma

WISCONSIN ASTHMA PROGRAM
Bureau of Environmental and Occupational Health
https://www.dhs.wisconsin.gov/asthma/index.htm | JUNE 2019
Department of Health Services | Division of Public Health | P-02168 (06/2019)

CONTENTS

SECTION ONE: WHAT IS ASTHMA? 3

SECTION TWO: COMMON SYMPTOMS 4

SECTION THREE: ASTHMA ATTACKS 5

SECTION FOUR: ASTHMA TRIGGERS 6-8

SECTION FIVE: ASTHMA MEDICINES 9-12

SECTION SIX: ASTHMA MEDICINE DEVICES 13-14

SECTION SEVEN: USING AN INHALER AND SPACER 15-17

SECTION EIGHT: USING AN INHALER 18-19

SECTION NINE: ASTHMA ACTION PLANS 20-22

SECTION 1:
WHAT IS ASTHMA?

THE BASICS

Asthma is a lung disease. It is caused by inflammation in your airways, making them more sensitive and narrow than normal. When asthma is not under good control, three things happen that make it hard to breathe:

1. **Your airways become swollen.** The walls thicken and there's less room for air to move through.

2. **Your airways make more mucus.** Mucus is a thick liquid that your body makes. Mucus is made to protect your nose, throat, and airways. When you have asthma, your body makes too much mucus. This mucus can block your airways.

3. **The muscles around your airways tighten.** Your airways have muscles around them that are usually loose. When you have asthma, these muscles can tighten so that less air gets through.

These three things can cause wheezing, coughing, and trouble breathing. If your asthma is not under good control, these three things can get worse over time.

REVIEW QUESTIONS:

What does it feel like when you have an asthma attack?

What happens in your body to cause asthma symptoms?

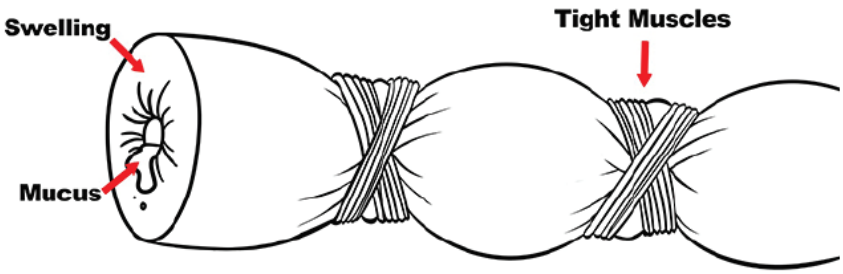


Photo credit: 2017 Booster Shot Media

SECTION 2: COMMON SYMPTOMS

COMMON SYMPTOMS

Each person with asthma may have symptoms that are a little bit different, and can change through time. Most people with asthma experience one or more of these symptoms:

Coughing

An asthma cough is usually dry and hard to stop. The cough is not just from a cold. Coughing from asthma is often worse at night or early morning, and after exercise.

Wheezing

Wheezing is a squeaky or high-pitched whistling sound when you breathe. When you wheeze, it feels hard to push air out of the lungs.

Chest tightness

Chest tightness can feel like something is squeezing your chest. This happens when your airways swell and your chest muscles squeeze.

Shortness of breath

Some people feel like they can't catch their breath, especially when they're being active (walking up stairs, exercising, playing sports).

REVIEW QUESTION:

What are the four most common symptoms of asthma?

How often you get symptoms will let you and your doctor know if you need to do more to control your asthma.

Call your doctor if:

- You have asthma symptoms more than two days a week.
- You are using your quick-relief inhaler more than two days a week.
- Your asthma wakes you up two or more times a month.
- Your asthma is getting in the way of your everyday activities.

SECTION 3: ASTHMA ATTACKS

SIGNS OF AN ASTHMA ATTACK

An asthma attack happens when your asthma is not well controlled and is getting worse. There are **early** signs and **emergency** signs of an asthma attack.

Early Signs include:

- Coughing
- Wheezing
- Chest tightness
- Shortness of breath
- Daytime fatigue
- Nighttime sleep disruption.

These symptoms indicate that you are in the **yellow zone** of your asthma action plan.

Emergency signs include:

- Rescue medicine is not working
- Breathing is faster or harder and keeps getting worse
- Nose opens wider (flares)
- Skin between the ribs pulls in (this is called retractions)
- Walking, talking, or sleeping is difficult
- Coughing won't stop

REVIEW QUESTIONS:

What does it feel like when you have an asthma attack?

Do your symptoms change as your asthma attack gets worse?

When to take rescue medicine:

Take quick relief (rescue) medicine when early signs begin. Your asthma action plan tells you which medicines to use.

SECTION 4: ASTHMA TRIGGERS

ASTHMA TRIGGERS

Triggers are things that make your asthma worse, so it is important to know how to avoid them. This can help reduce the inflammation in your lungs, your symptoms, and even your need for medicine.

Triggers can be **irritants**, **allergens**, or **other types of triggers**.

IRRITANTS

Irritants are airborne substances like smoke, strong smells, or air pollution that can aggravate your asthma.

Smoke: If you can smell smoke, it is hurting your lungs.

- If you are a smoker, consider quitting.
- Do not let others smoke in your house or car.
- Avoid secondhand smoke.
- Anything that burns can make smoke (examples: campfires, incense, candles, and smudging). and trigger an asthma attack.

Strong smells or sprays: Strong smells can make asthma worse.

- Strong smells include cleaning products, deodorants, perfumes, hair sprays, paints, diffusers, candles, and campfires.
- Open windows when using cleaning products, and stay out of the room for two hours after you finish cleaning.

Air pollution: Poor air quality can make asthma worse.

- Check air quality online or in the newspaper.
- Do not exercise outside on poor air quality days.
- Stay inside. Look for air-conditioned places.

SECTION 4:
ASTHMA TRIGGERS

ALLERGENS

An allergen is something you breathe in and can cause an allergic reaction. Allergies bother some people, but not everyone. When allergens are breathed into the lungs, they cause swelling and asthma attacks.

Pollen: Grass, trees, and weeds make pollen. This includes tree pollen in spring, grass in summer, and ragweed and molds in fall.

- Keep windows closed and air conditioning on.
- Do outdoor activities in the afternoon, when pollen counts are lower.
- Ask your doctor if you need to add or increase your medicine before the allergy season starts.

Animal dander: All pets with fur or feathers make dander. Dander is protein found in skin flakes, urine, poop, saliva, and hair.

- Keep furry or feathered pets out of your home.

Dust mites: Dust mites are tiny bugs (too small to see) that live in dusty places (mattresses, furniture, carpets, stuffed animals) and can make it hard to breathe.

- Cover pillows, mattresses, and box springs in a special dust-proof cover.
- Wash all bedding weekly in hot water with soap.

Cockroaches: Dead cockroach bodies and droppings mix with house dust and can be inhaled.

- Seal entryways and keep food in closed containers.
- Do not use roach bombs to kill the roaches. Use roach motels instead.

Mold: Mold grows in moist areas. You can find it in the bathroom, basement, under sinks, in potted plants, and along windowsills.

- Clean moldy surfaces with a bleach-free cleaner, such as vinegar, baking soda, or soap/water.
- Reduce indoor humidity.
- Fix leaky sinks, pipes, tubs, or toilets.

Talk to your doctor about what may be causing your allergy symptoms and worsening your asthma. You and your doctor may decide that allergy testing is an option for you.

SECTION 4:
ASTHMA TRIGGERS

OTHER TYPES OF TRIGGERS

Colds and viruses: Colds can make asthma worse.

- Follow your asthma action plan.
- Take asthma medicine.
- Wash your hands often.
- Get a flu shot every year.

Weather changes: Asthma symptoms may be worse if it gets really cold or really hot outside.

- Cover nose and mouth with a scarf on cold days.
- Stay indoors in air conditioning on hot and humid days.

Exercise and being active: It is important to be active; however, some activities may make asthma symptoms worse.

- Start activity slowly. Warm up for 10 minutes before activity.
- Talk to your provider or nurse about taking asthma medicine before activity. Taking medicine before activity can keep asthma symptoms away during exercise.
- If you cannot be as active as you want, talk to your doctor.

REVIEW QUESTIONS:

Which trigger affects your asthma the most?

What can you do to avoid or remove these triggers?

SECTION 5: ASTHMA MEDICINES

ASTHMA MEDICINES

Although there is no cure for asthma, medicines are the **best** way to control and treat asthma. Most people with asthma need two kinds of medicine: **daily control medicine** and **quick relief (rescue) medicine.** These medicines work differently, and should be taken the right way to keep your asthma in good control and minimize side effects.

DAILY CONTROL MEDICINE

(Preventive and long-term control)

These are medicines that you take every day for a long time. Daily control medicine helps to decrease the swelling in the airway and keep the airway open. This makes it easier to breathe.

Daily control medicine is most effective when you take it every day.

- Take this medicine every day even if there are no asthma symptoms.
- When these medicines are used every day, the symptoms of asthma will decrease. The chances of having an asthma attack will also decrease.
- These medicines work slowly. It may take a few days to a few weeks before you feel better.
- When these medicines are taken every day, a quick relief medicine is not usually needed more than two times a week. There may be times when quick relief medicine may be needed more than twice a week such as during illness or exercise.

There are four main kinds of daily control medicine:

1. Inhaled corticosteroids
2. Combination medicine
3. Leukotriene modifiers
4. Anticholinergic bronchodilators

1. Inhaled corticosteroids

(Common names are Flovent, Qvar, or Budesonide)

- This medicine comes as an inhaler or a liquid for a nebulizer. It decreases swelling and mucus in the airway.
- Inhaled corticosteroids are the most effective anti-inflammatory medicine for most people.

Special instructions

- Do not stop taking this medicine without talking to your doctor.
- Can cause irritation of the mouth and throat. Rinse your mouth after using the medicine to prevent this.

SECTION 5: ASTHMA MEDICINES

2. Combination medicine (corticosteroids and long acting beta agonists)

(Common names are Advair, Dulera)

- This medicine comes as an inhaler.
- The corticosteroid works to decrease and prevent both swelling and mucus in the airway. The long-acting beta agonist is used to open the airways in the lungs by relaxing the muscles around the airways.

Special instructions

- Do not increase or stop this medicine without talking to your doctor.
- Can cause irritation of the mouth and throat. Rinse your mouth after using the medicine to prevent this.

3. Leukotriene modifiers

(Common names are Montelukast or Accolate)

- This medicine comes as a pill that you chew or swallow.
- It blocks the immune system from causing airway swelling.
- It also helps with swelling and mucus in the nose caused by allergies.

Special instructions: Works best if taken before bed.

4. Anticholinergic bronchodilators

- This medicine comes as an inhaler or liquid for a nebulizer.
- It prevents constriction of bronchioles and airways, and is often used in the treatment of COPD.

Special instructions

- It can take a full hour to begin working, so do not use this medication instead of a rescue inhaler.
- Can cause dry throat or mouth. Rinse your mouth after using the medicine to prevent this.

QUICK RELIEF (RESCUE) MEDICINE

(Common names are Albuterol and Levalbuterol)

You take these medicines when you need immediate relief of your symptoms. Everyone who has asthma needs a quick-relief medicine to stop asthma symptoms before they get worse.

- Take this medicine right away when asthma symptoms start.
- Quick relief medicine helps relax the muscles that are squeezing around the airways. This helps make it easier to breathe.

SECTION 5: ASTHMA MEDICINES

QUICK RELIEF (RESCUE) MEDICINE (continued)

- This medicine begins to work very quickly. Asthma symptoms should be better in 5-10 minutes after taking the medicine.
- The medicine will work in the body for up to four hours.
- Quick relief medicine should only be taken for asthma symptoms or before activities. If this medicine is used too often it can be dangerous.

Special instructions: Some people have restlessness, nervousness, shaking hands, fast or pounding heartbeat when they take quick relief medicines. The use of a spacer can decrease these symptoms.

Steroid medicines by mouth:

- This medicine comes as a liquid, melting tablet or pill.
- When an asthma attack happens, extra medicine may be needed to help with the swelling and mucus.
- This type of medicine should not be used very often. It should only be used when asthma symptoms are very bad.
- When steroids are used right away, the swelling should stop quickly. They take 6-8 hours to start working.
- Sometimes the doctor will give instructions to slowly decrease the medicine dose. This means taking less and less medicine every day until it is stopped. Doctors call this a steroid taper.
- These are not the kind of steroids that people use to build muscle.

Special instructions

- Some people get more energy when this medicine is taken, have trouble settling down, or trouble sleeping. Some children have more behavioral problems with this medicine. Take this medicine earlier in the day to prevent sleep problems.
- If steroids are needed more than once a year, see a doctor or asthma specialist because extra medicines may be needed.

Be sure to talk to your doctor about what proper inhaler use means for you.

Instructions should be outlined on your asthma action plan.

SECTION 5: ASTHMA MEDICINES

EXAMPLES OF ASTHMA MEDICINES

Most people with asthma need two kinds of medicine: **Daily control medicine** and **quick relief (rescue) medicine.** This diagram shows examples of the different types of medicine that can be used for asthma.

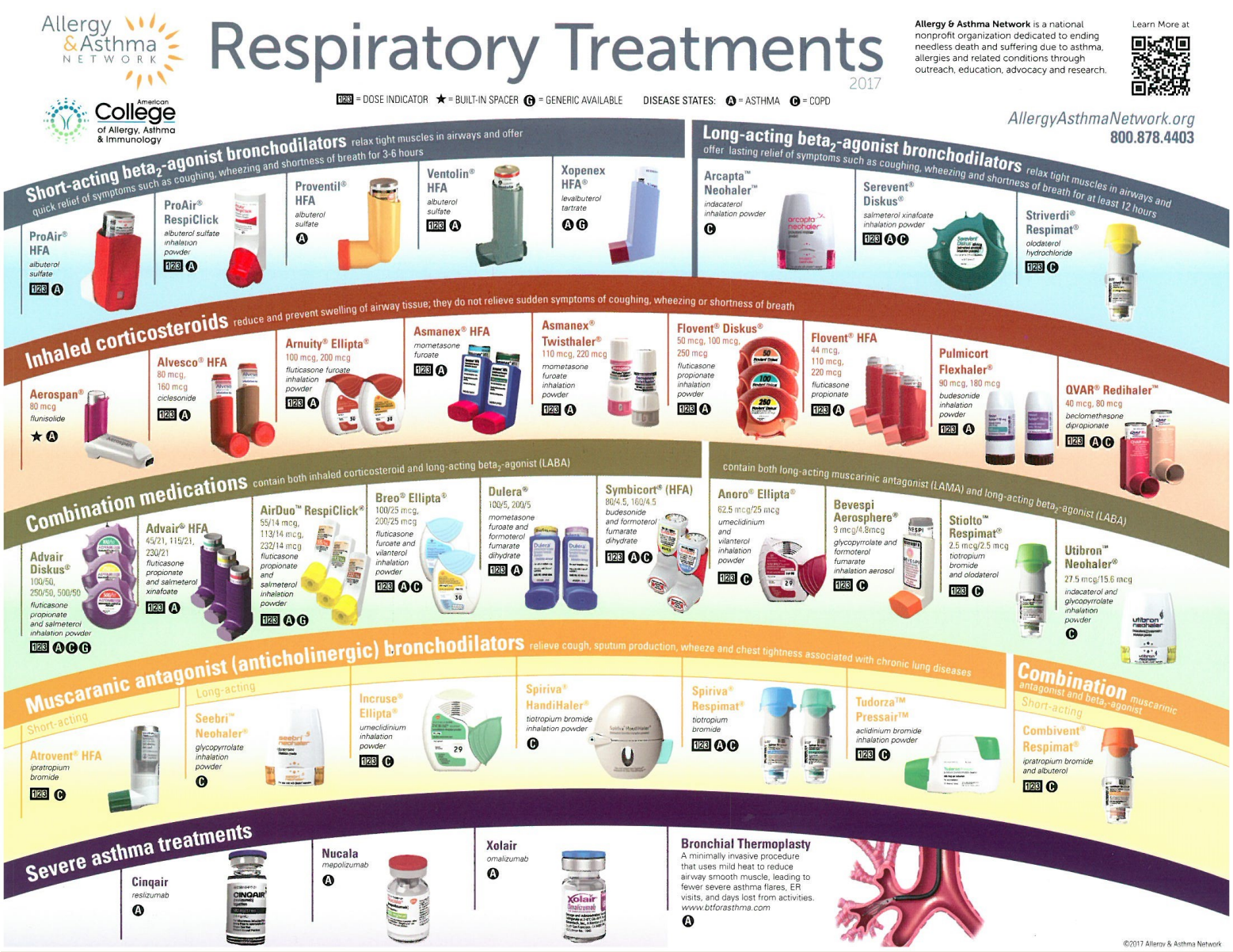


Photo credit: Allergy and Asthma Network

SECTION 6: MEDICINE DEVICES

THE FOUR TYPES OF ASTHMA MEDICINE DEVICES

Most asthma medicines need to get into the lungs to work, but different types of inhalers require different ways to use them. It is important for you to learn how to use *your* inhaler correctly. Ask your doctor, pharmacist, or other health care professional to show you how to use it. There are four devices that can be used to take asthma medicine.

1. Metered-dose inhaler (MDI): Commonly called a pump or puffer, this device is a small canister that delivers a measured dose of medicine through your mouth to your airways.

- The medicine is mixed with a safe gas that pushes the medicine out very fast.
- The medicine comes out in the form of a mist that can be breathed into the lungs.
- **A spacer should always be used with Metered-Dose Inhalers.** Spacers help slow down the speed of the medicine so it can get into the lungs, and not stick to the mouth or throat
- An inhaler can travel with you when you leave home.

2. Dry powder inhaler (DPI): This device delivers a pre-set amount of asthma medicine in powder form.

- The medicine comes out in the form of a powder, which can be breathed into the lungs.
- In order to get the medicine in the lungs, you have to breathe in deep and fast.
- A spacer should **not** be used when taking this medicine.
- An inhaler can travel with you when you leave home.

REVIEW QUESTIONS:

Why should you use a spacer with your inhaler?

What medication do you take in an emergency?

SECTION 6: MEDICINE DEVICES

3. Respimat® Soft Mist™ Inhaler (SMI): This is a device that holds water-based medicines inside a can.

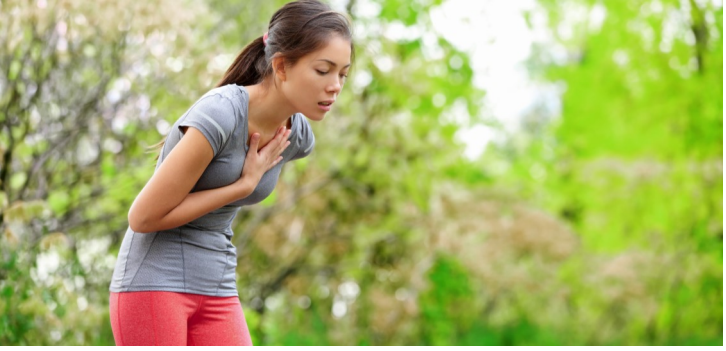
- The medicine comes out of the inhaler as slow mist and looks like a cloud.
- The medicine does not contain extra chemicals to help it get to the lungs.
- A spacer **should not be used** when taking this medicine.
- An inhaler can travel with you when you leave home.

4. Nebulizer: This is a device that provides the medicine in a fine, steady mist.

- A nebulizer mixes air with a liquid medicine to make a mist.
- The mist is breathed into the lungs through a mask or a mouthpiece connected to the nebulizer.
- A nebulizer requires electricity or a battery.
- A nebulizer takes 10 to 15 minutes longer to use than an inhaler.
- A nebulizer does not work better than an inhaler with a spacer.
- The device is useful for infants, young children, and adults who have trouble using an inhaler.

Special instructions:

- Make sure to keep track of the number of doses left in an inhaler. Some inhalers have a counter, and some do not. If the MDI does not have a dose counter, keep track of how many puffs are used each time the inhaler is used.
- Do not keep the inhaler in very hot or very cold temperatures.
- Use the inhaler only as directed by the doctor.
- Do not let children play with a metered-dose inhaler or a spacer.
- One spacer can be used for all of your metered-dose inhalers.
- A spacer should last at least one year.



SECTION 7: USING AN INHALER AND SPACER

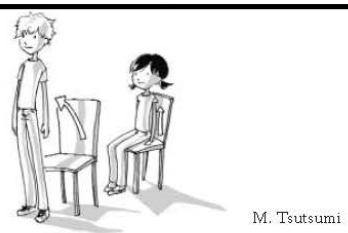
HOW TO USE AN INHALER AND SPACER

Using a spacer is the most effective way to receive your medications. If you do not have a spacer, ask your provider.

Spacers

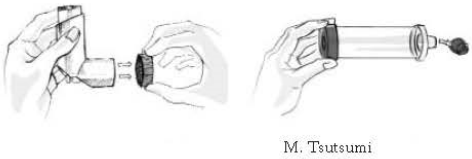
Spacers should always be used with metered-dose inhalers. It helps slow down the speed of the medicine so it can get into the lungs and not to other parts of the body. They can be helpful in ensuring that a larger amount of medication makes it to your lungs.

1



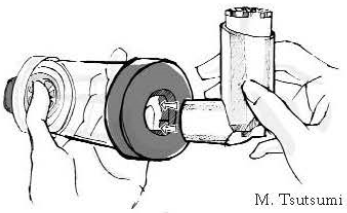
Stand or sit up straight.

2



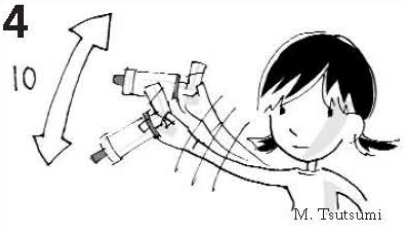
Remove caps. Look into spacer/inhaler and remove/clean any dust.

3



Attach the inhaler to a spacer.

4

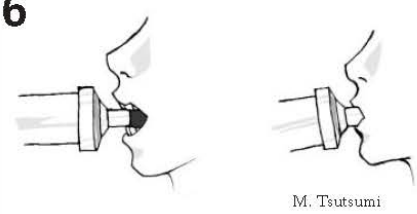


Shake the inhaler (10 shakes).

5

Hold the spacer close to your mouth and breathe out naturally.

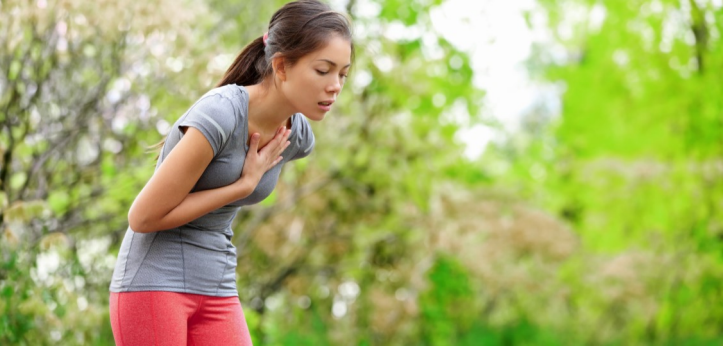
6



Put the spacer mouthpiece between your teeth then close your lips.

Continued on the next page

Created through a partnership with FAM Allies and Children's Hospital of Wisconsin, 2007

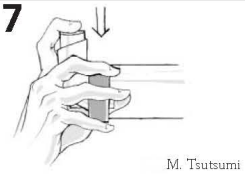
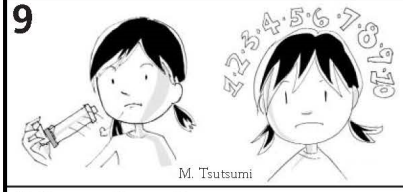
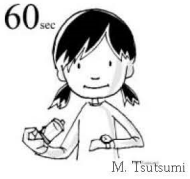
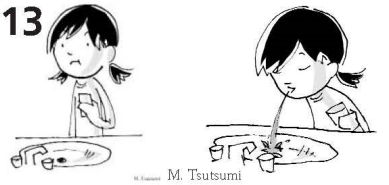
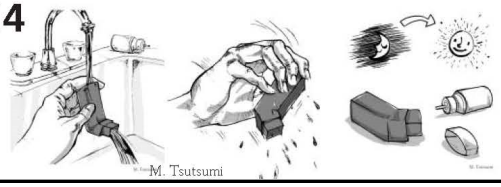


SECTION 7: USING AN INHALER AND SPACER

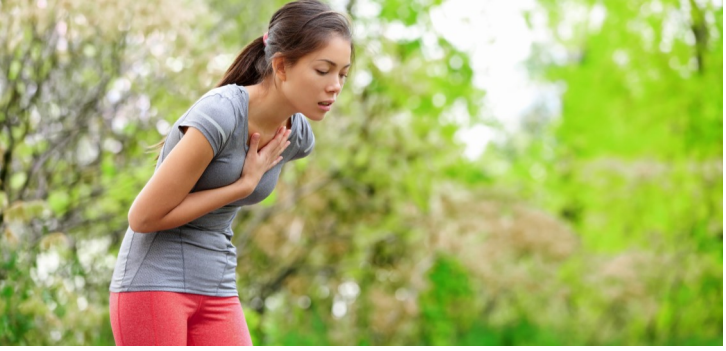
HOW TO USE AN INHALER AND SPACER (continued)

How do I clean a spacer?

- Remove the inhaler from the spacer.
- If possible, take the pieces of the spacer apart.
- Soak (do not scrub) the pieces of the spacer in warm soapy water for 10 minutes.
- Rinse the spacer with warm water to remove any leftover soap.
- Let all the parts dry completely before putting the spacer back together.
- Wash at least once a week.

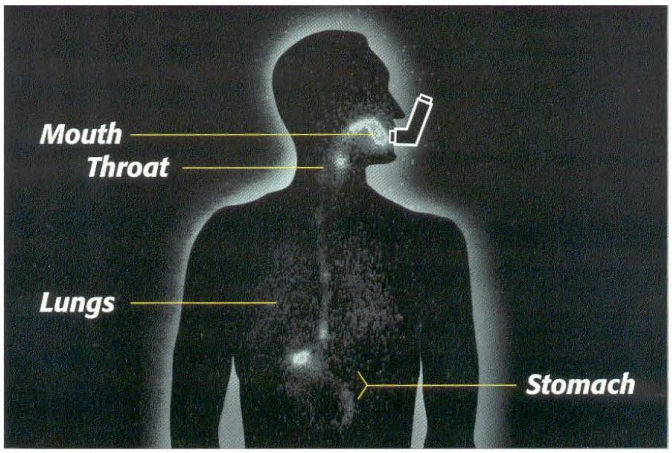
7		Press down once on the inhaler.
8		Breathe in slowly and keep breathing in slowly until your lungs are full.
9		Remove the spacer from your mouth and close your lips. Hold your breath for 10 seconds.
10		Breathe out slowly.
11		Wait 60 seconds.
12		Repeat steps 5 through 11 for each puff that your health care provider tells you to take.
13		Rinse mouth.
14		Remove the canister of medicine and rinse the plastic holder with water. Shake off excess water and let dry overnight.

Created through a partnership with FAM Allies and Children's Hospital of Wisconsin, 2007



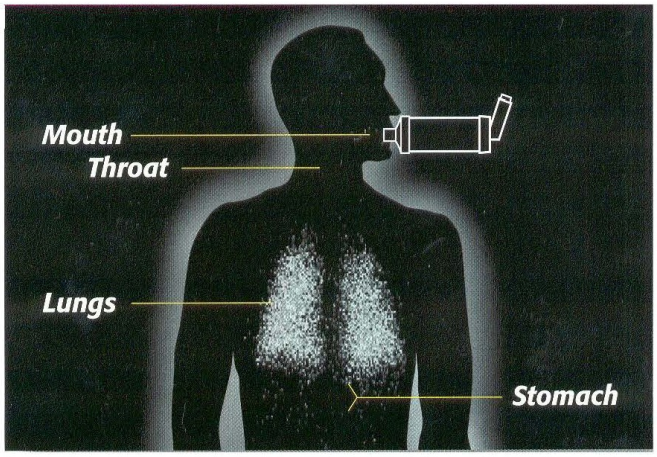
SECTION 7: USING AN INHALER AND SPACER

WHY USE A SPACER WITH AN INHALER?



Inhaler alone

When an inhaler is used alone, medicine ends up in the mouth, throat, stomach and lungs.



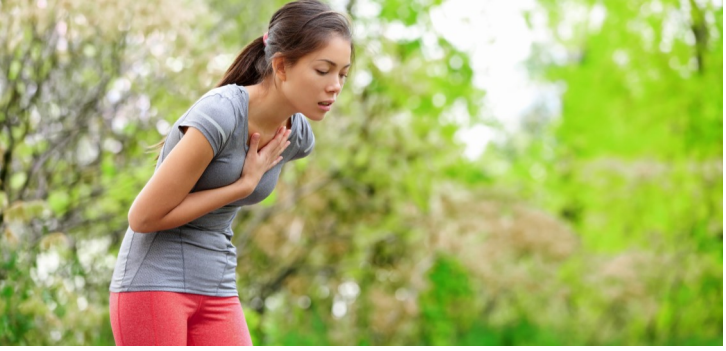
Inhaler used with spacer device

When an inhaler is used with a spacer device, more medicine is delivered to the lungs.

"Comparative respiratory deposition of ^{99m}Tc labeled particles of albuterol using a metered dose inhaler, a metered does inhaler with Aerochamber® spacer and OptiChamber® spacer in healthy human volunteers using gamma-scintigraphy," R. Beihn, PhD, Scintiprox, Inc., Indianapolis, IN and D. Doherty, MD, Dept. of Pulmonology, University of Kentucky Medical Center, Lexington, KY, 1997.

Images kindly provided by Respironics HealthScan Inc.

Allies Against Asthma, Center for Pediatric Research, 855 W. Brambleton Ave., Norfolk, VA 23510, 757-668-6435

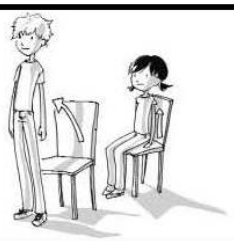
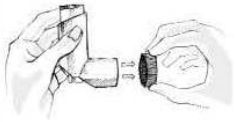
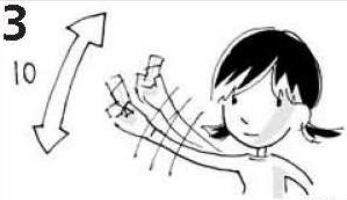
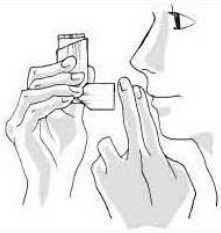


SECTION 8:

USING AN INHALER

HOW TO USE AN INHALER

Using a spacer is the most effective way to receive your medications. If you do not have a spacer, ask your provider.

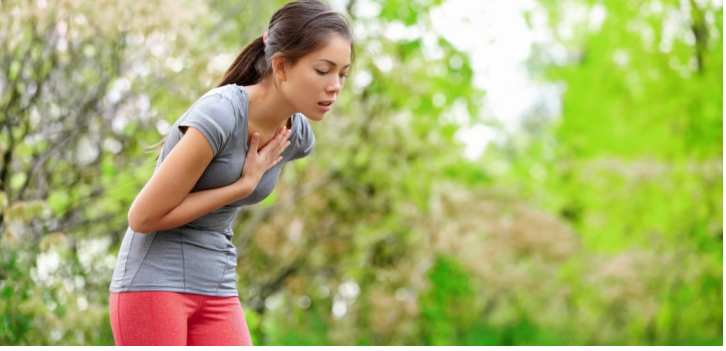
1	 M. Tsutsumi	Stand or sit up straight.
2	 M. Tsutsumi	Remove the cap from the inhaler.
3	 M. Tsutsumi	Shake the inhaler (10 shakes).
4	M. Tsutsumi	Breathe out naturally.
5	 M. Tsutsumi	Tilt head back slightly. Hold the inhaler two finger widths away from your mouth.
6	M. Tsutsumi	As you begin to inhale, press down on the inhaler.

Continued on the next page
on the other side

REVIEW QUESTION:

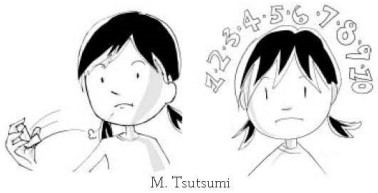
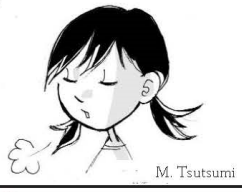
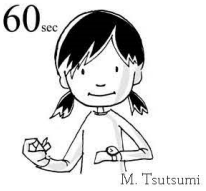
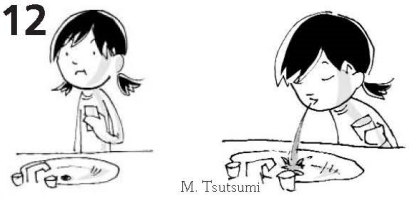
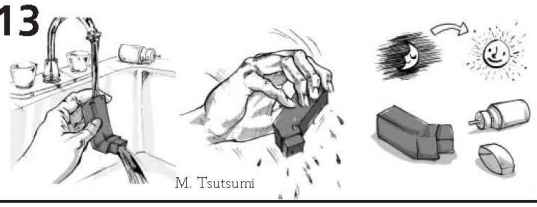
Can you demonstrate your inhaler technique?

Created through a partnership with FAM Allies and Children's Hospital of Wisconsin, 2007



SECTION 8:
USING AN INHALER

HOW TO USE AN INHALER (continued)

7	Keep breathing in slowly until your lungs are full.
8 	Remove the inhaler from your mouth and close your lips. Hold your breath for 10 seconds.
9 	Breathe out slowly.
10 60sec 	Wait 60 seconds.
11	Repeat steps four through 10 for each puff that your health care provider tells you to take.
12 	Rinse mouth with water and spit out.
13 	Remove the canister of medicine and rinse the plastic holder with water. Shake off excess water and let it dry overnight.

Created through a partnership with FAM Allies and Children's Hospital of Wisconsin, 2007

SECTION 9:
ASTHMA ACTION PLANS

ASTHMA ACTION PLAN

An asthma action plan is a plan that the doctor will make for you. This plan will help you know what to do when asthma is in control and when asthma symptoms start to act up.

The asthma action plan will help you know:

- How to take your asthma medicines and what they do.
- What your asthma triggers are and how to avoid them.
- What early signs of an asthma problem are.
- What to do when asthma symptoms begin.
- What to do when asthma symptoms get worse.
- When to call the doctor.

The plan is split into three colored zones: green, yellow, and red. Follow the steps under each zone.

Green means "GO." Asthma is in good control and there are no asthma symptoms.

- ☐ Take daily control medicine every day even if there are no asthma symptoms.
- ☐ Take rescue medicine 15 minutes before exercise or sports if needed.

Yellow means asthma symptoms are staring to act up. Symptoms like coughing, runny nose, wheezing, or chest tightness might be starting.

- ☐ Start quick relief medicine right away to keep symptoms from getting worse.
- ☐ Continue to take the green zone daily control medicines.
- ☐ Call the doctor if you are in the yellow zone for more than 24 hours.
- ☐ Follow any special instructions given by the doctor.

Red means danger. It has become very hard to breathe. Take immediate action.

- ☐ Increase the quick relief medicine as instructed in the plan and call the doctor right away.
- ☐ If the doctor cannot be reached, go to the emergency room or call 911.

SECTION 9:
ASTHMA ACTION PLANS

Recommended version for school-aged children

American Academy of Allergy Asthma & Immunology

Asthma Action Plan for Home & School

Name: Birthdate:

Asthma Severity: ☐ Intermittent ☐ Mild Persistent ☐ Moderate Persistent ☐ Severe Persistent
☐ He/she has had many or severe asthma attacks/exacerbations

☺ Green Zone Have the child take these medicines every day, even when the child feels well.

Always use a spacer with inhalers as directed.
Controller Medicine(s): _____

Controller Medicine(s) Given in School: _____
Rescue Medicine: Albuterol/Levalbuterol _____ puffs every four hours as needed
Exercise Medicine: Albuterol/Levalbuterol _____ puffs 15 minutes before activity as needed

😐 Yellow Zone Begin the sick treatment plan if the child has a cough, wheeze, shortness of breath, or tight chest. Have the child take all of these medicines when sick.

Rescue Medicine: Albuterol/Levalbuterol _____ puffs every 4 hours as needed
Controller Medicine(s):
☐ Continue Green Zone medicines: _____
☐ Add: _____
☐ Change: _____
If the child is in the **yellow** zone more than **24** hours or is getting worse, follow **red** zone and call the doctor right away!

☹ Red Zone If breathing is hard and fast, ribs sticking out, trouble walking, talking, or sleeping.
Get Help Now

Take rescue medicine(s) now
Rescue Medicine: Albuterol/Levalbuterol _____ puffs every _____
Take: _____

If the child is not better right away, call 911
Please call the doctor any time the child is in the red zone.

Asthma Triggers: (List)

School Staff: Follow the Yellow and Red Zone plans for rescue medicines according to asthma symptoms.
Unless otherwise noted, the only controllers to be administered in school are those listed as "given in school" in the green zone.
☐ Both the asthma provider and the parent feel that the child may carry and self-administer their inhalers
☐ School nurse agrees with student self-administering the inhalers

Asthma Provider Printed Name and Contact Information:	Asthma Provider Signature: Date:

Parent/Guardian: I give written authorization for the medications listed in the action plan to be administered in school by the nurse or other school members as appropriate. I consent to communication between the prescribing health care provider/clinic, the school nurse, the school medical advisor and school-based health clinic providers necessary for asthma management and administration of this medication.

Parent/guardian signature: Date:	School Nurse Reviewed: Date:

Please send a signed copy back to the provider listed above.

Ask your doctor for an asthma action plan

From the American Academy of Allergy, Asthma, and Immunology

SECTION 9:

ASTHMA ACTION PLANS

Recommended version for adults

Asthma Action Plan

AMERICAN LUNG ASSOCIATION®

General Information

- Name _____
- Emergency Contact _____ Phone Number _____
- Physician/Health Care Provider _____ Phone Number _____
- Physician Signature _____ Date _____

Severity Classification	Triggers	Exercise
❍ Intermittent ❍ Mild Persistent ❍ Moderate Persistent ❍ Severe Persistent	❍ Colds ❍ Smoke ❍ Weather ❍ Exercise ❍ Dust ❍ Air pollution ❍ Animals ❍ Food ❍ Other _____	1. Pre-medication (how much and when) _____ _____ 2. Exercise modifications _____ _____

Green Zone: Doing Well

Peak Flow Meter Personal Best =

Symptoms
- Breathing is good
- No cough or wheeze
- Can work and play
- Sleeps all night

Control Medications

Medicine	How Much to Take	When to Take it

Peak Flow Meter
More than 80% of personal best or _____

Yellow Zone: Getting Worse

Contact Health Care Provider if using quick relief more than 2 times per week.

Symptoms
- Some problems breathing
- Cough, wheeze or chest tight
- Problems working or playing
- Wake at night

Continue control medicines and add:

Medicine	How Much to Take	When to Take it

Peak Flow Meter
Between 50 to 80% of personal best or
_____ to _____

IF your symptoms (and peak flow, if used) return to Green Zone after one hour of the quick relief treatment, THEN
- ❍ Take quick relief medication every 4 hours for 1 to 2 days
- ❍ Change your long-term control medicines by _____
- ❍ Contact your health care provider for follow-up care

IF your symptoms (and peak flow, if used) DO NOT return to the GREEN ZONE after 1 hour of the quick relief treatment, THEN
- ❍ Take quick relief treatment again
- ❍ Change your long-term control medicines by _____
- ❍ Call your health care provider within _____ hours of modifying your medication routine

Red Zone: Medical Alert

Ambulance/Emergency Phone Number:

Symptoms
- Lots of problems breathing
- Cannot work or play
- Getting worse instead of better
- Medicine is not helping

Continue control medicines and add:

Medicine	How Much to Take	When to Take it

Peak Flow Meter
Between 0 to 50% of personal best or
_____ to _____

Go to the hospital or call for an ambulance if
- ❍ Still in the red zone after 15 minutes
- ❍ If you have not been able to reach your health care provider for help
- ❍ _____

Call an ambulance immediately if the following danger signs are present
- ❍ Trouble walking/talking due to shortness of breath
- ❍ Lips or fingernails are blue

From the American Lung Association

ACKNOWLEDGEMENTS

This document was adapted from the 2017 Children's Hospital of Wisconsin's Asthma Care Notebook

This document was supported by the Cooperative Agreement number NU59EH00050309, funded by the Centers for Disease Control and Prevention.