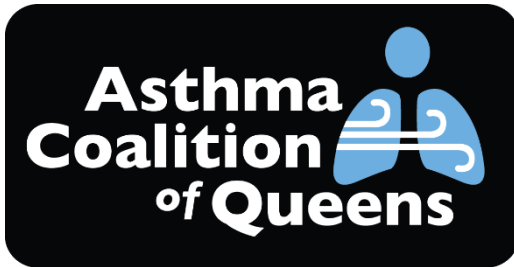


# Chronic Disease Trainings for Health Home Care Managers

Training Topic:	NYS Department of Health OHIP Health Home Live Webinar:
1) Chronic Conditions Overview	September 13 <sup>th</sup>
2) High Blood Pressure, Prehypertension & Hypertension	September 13 <sup>th</sup> 1:00-2:30 pm
3) Prediabetes 4) Diabetes	November 8 <sup>th</sup> 1:00-2:30 pm
5) Asthma	December 6 <sup>th</sup> 1:00 – 2:30
6) Arthritis & Chronic Disease Self-Management Program - *Live Webinar ONLY*	January 31 <sup>st</sup> 2018 1:00-2:30 pm

To receive updates and slides from these live sessions, sign up for the Medicaid Health Home listserv at: [hhsc@health.ny.gov](mailto:hhsc@health.ny.gov) and request to be added to the Health Home listserv.

CLAUDIA GUGLIELMO, MPA, AE-C  
DIRECTOR



ANNE LITTLE, MPH, AE-C  
DIRECTOR

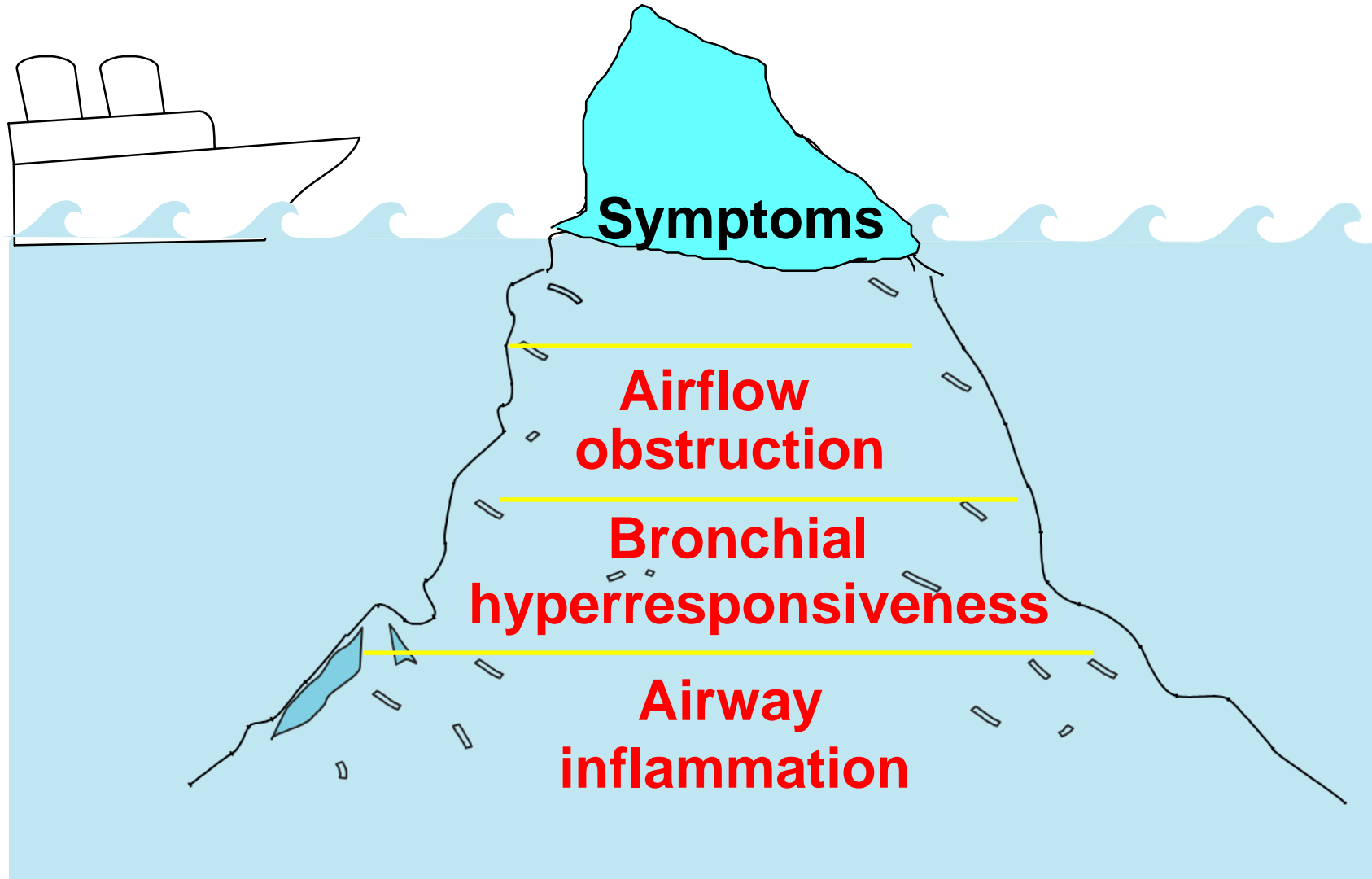


# WHAT IS ASTHMA?

## A chronic inflammatory disorder of the airways

- **Inflammation (swelling)** of the lining of the airways
- **Bronchoconstriction** (tightening of the bands of smooth muscles surrounding the airways) which reduces the width of the airways
- **Excess mucus production** that further narrows the airways

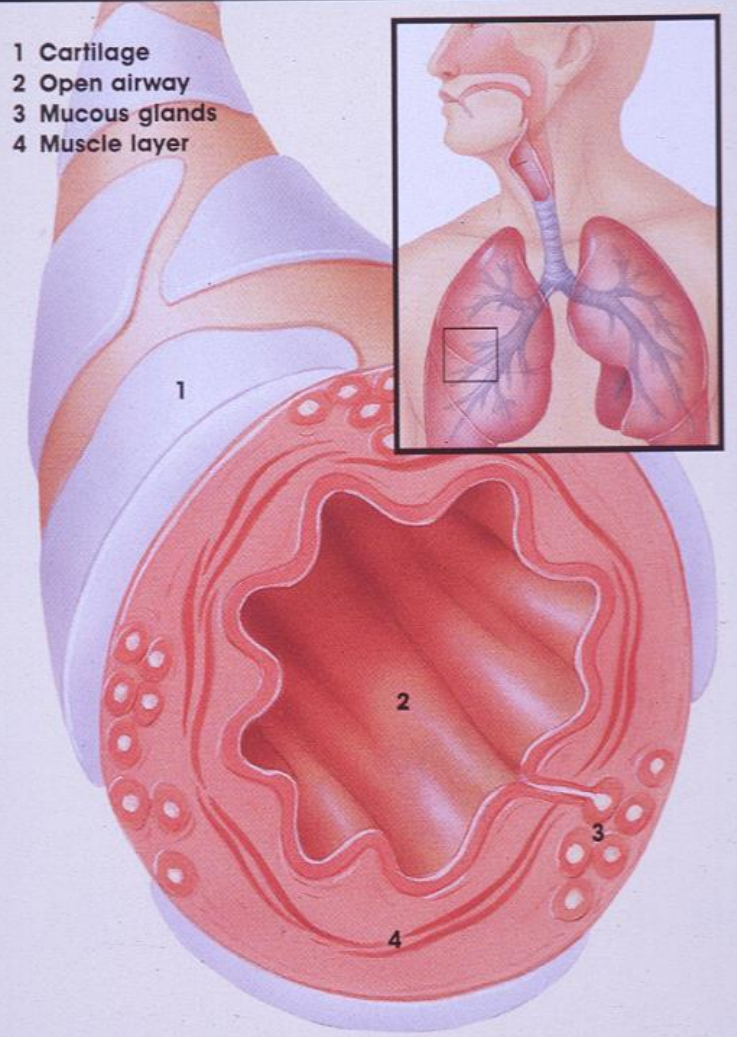
# A LOT GOING ON BENEATH THE SURFACE



# WHAT DOES ASTHMA LOOK LIKE?

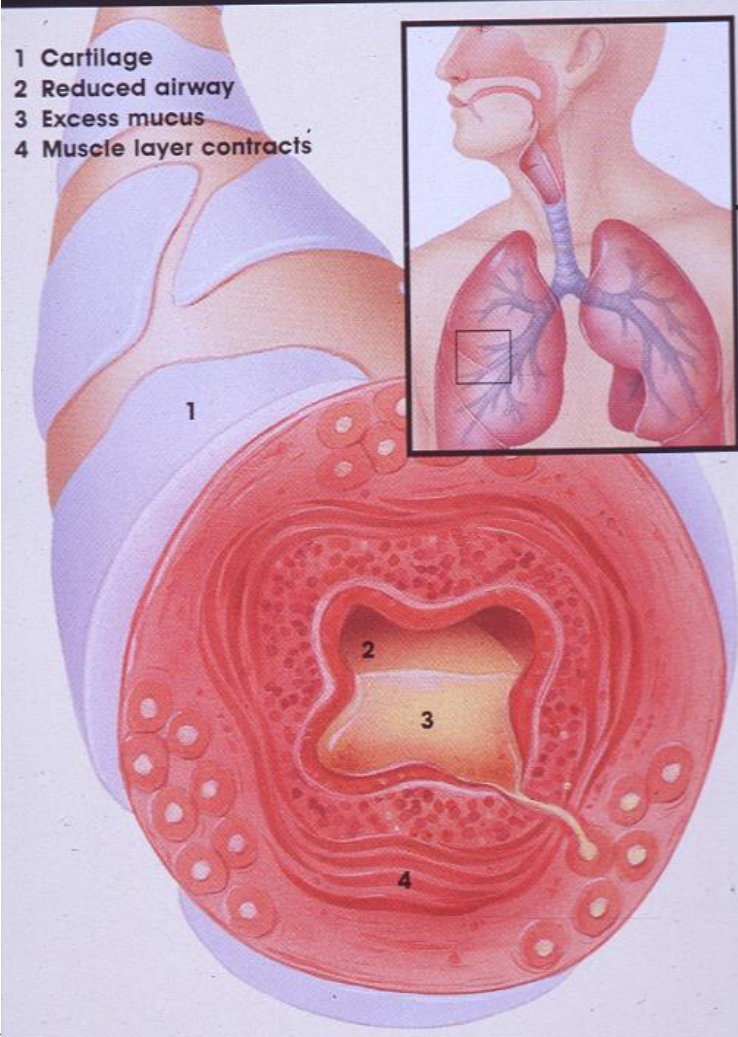
## NORMAL BRONCHUS

- 1 Cartilage
- 2 Open airway
- 3 Mucous glands
- 4 Muscle layer



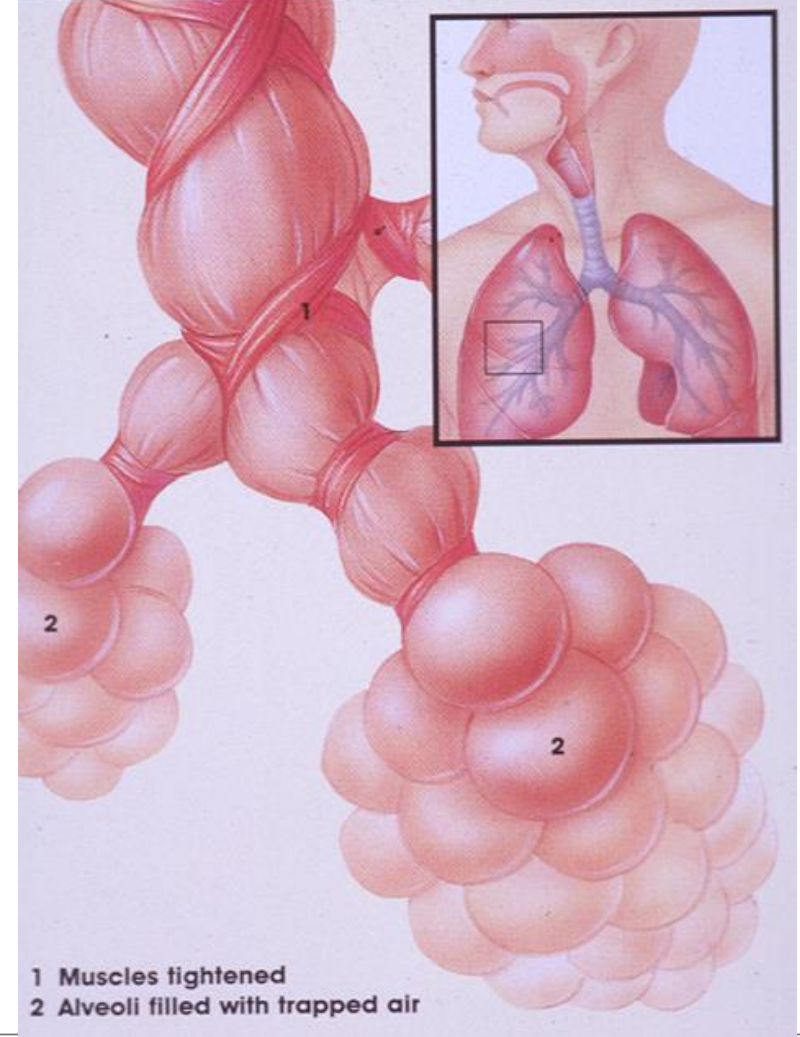
## BRONCHIAL INFLAMMATION

- 1 Cartilage
- 2 Reduced airway
- 3 Excess mucus
- 4 Muscle layer contracts



## BRONCHIAL CONSTRICTION

- 1 Muscles tightened
- 2 Alveoli filled with trapped air



# MYTHS & TRUTHS ABOUT ASTHMA

# MYTHS & TRUTHS ABOUT ASTHMA

---

## Myth

Asthma is a psychological or emotional illness

## Truth

Airway swelling is real, even if triggered by strong emotions

## Myth

Asthma is only an acute disease, and you can outgrow it

## Truth

Asthma is a chronic disease, and you do not outgrow it

## Myth

Asthma is curable

## Truth

Asthma cannot be cured, but can be controlled



# MYTHS & TRUTHS ABOUT ASTHMA

---

## Myth

Asthma always limits normal activities

## Truth

Daily asthma controller/ pre-exercise medications allow individuals to be active

## Myth

Asthma limits a person's ability to fully participate in sports

## Truth

Well-controlled asthma should not limit exercise and individuals can fully participate in sports

## Myth

Asthma medication and inhalers are addictive

## Truth

Asthma medications and inhalers are not addictive

# MYTHS & TRUTHS ABOUT ASTHMA

---

## Myth

Asthma medication becomes ineffective if used regularly

## Truth

**Controller** medications work best when used daily. Use of daily **Quick Relief** (albuterol) inhalers is an indicator of poor asthma control.

## Myth

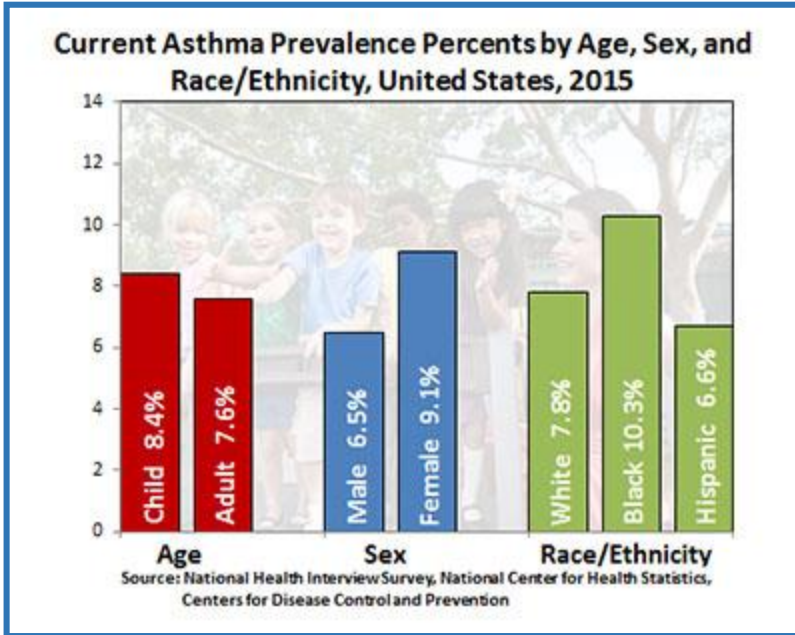
People cannot die from asthma

## Truth

Children and adults die from asthma each year

# ASTHMA STATISTICS


# Asthma Facts in the US





**1** in **11**  
children  
has asthma

**1** in **12**  
adults  
has asthma

**In 2009,**  
**there were:**

 **479,300**  
asthma-related  
hospitalizations

**1.9 million**  
asthma-related  
emergency  
department  
visits 

 **8.9 million**  
asthma-related  
doctor visits

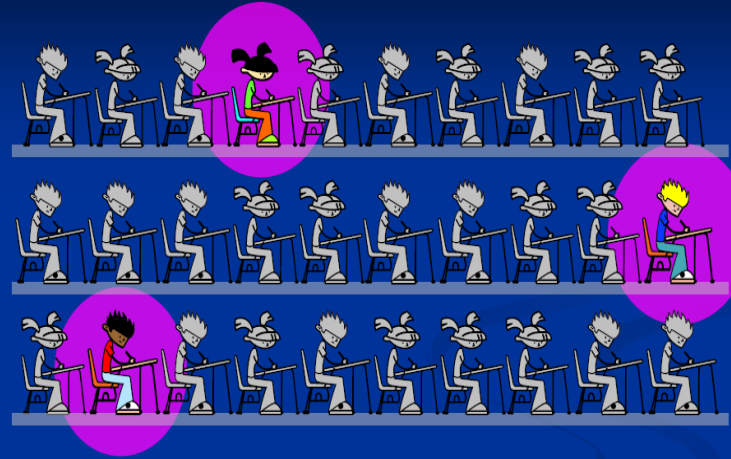
  
**1** in **5**  
children with asthma  
went to an **emergency  
department** for asthma-  
related care in 2009.

 **3** in **5**  
People with asthma  
**limit their physical activity.**

Who has  
asthma  
in NYS?



On average, 3 children in a classroom of 30

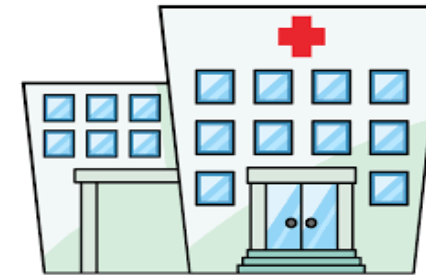


Asthma is the **most common** chronic condition among children and a **leading cause** of school absences.

Kids with asthma who are exposed to secondhand smoke at home are **2X** more likely to be hospitalized for an asthma attack.



**POOR ASTHMA CONTROL  
LEADS TO:**



**38,000  
Hospitalizations**



**165,000+  
Emergency  
Department Visits**

**AND 255 DEATHS**

NYS Annually

## ASTHMA IS COSTLY

The average cost of an asthma hospitalization:  
**\$18,625**

Total projected cost for asthma in 2014 was  
\$3.45 billion, including loss of productivity



# RISK FACTORS FOR DEATH FROM ASTHMA

- History of severe exacerbations
- Prior intubation for asthma
- Prior admission to Intensive Care Unit
- 2 or more hospital admissions in the past year
- 3 or more emergency room visits in the past year
- Hospital or emergency room visit past month
- Use of >2 canisters per month of inhaled short-acting beta2 – agonist

# RISK FACTORS FOR DEATH FROM ASTHMA

- Chronic use of systemic corticosteroids
- Poor perception of airflow obstruction or its severity
- Co-morbid conditions (other diseases)
- Serious psychiatric disease or psychosocial problems
- Low socioeconomic status and urban residence
- Illicit drug use
- Sensitivity to alternaria-mold
- Lack of written asthma action plan

# **SYMPTOMS OF ASTHMA**



# BEFORE SYMPTOMS OCCUR: EARLY WARNING SIGNS

Early warning signs suggest the possibility of an asthma attack and are not the same for everyone.

- ✓ Shortness of breath
- ✓ Tightness in chest
- ✓ Pain in chest
- ✓ Less able to exercise
- ✓ Tired
- ✓ Itchy throat
- ✓ Watery eyes
- ✓ Dark circles around eyes
- ✓ Congestion
- ✓ Feeling Sad
- ✓ Fever
- ✓ Clammy skin
- ✓ Pale
- ✓ Dry Mouth
- ✓ Fast Heartbeat
- ✓ Dark Circles
- ✓ Sneezing
- ✓ Gets easily excited or upset
- ✓ Feels Restless

Early treatment is always most helpful, waiting for an episode to become full-blown usually means it will take more time and treatment to get relief.

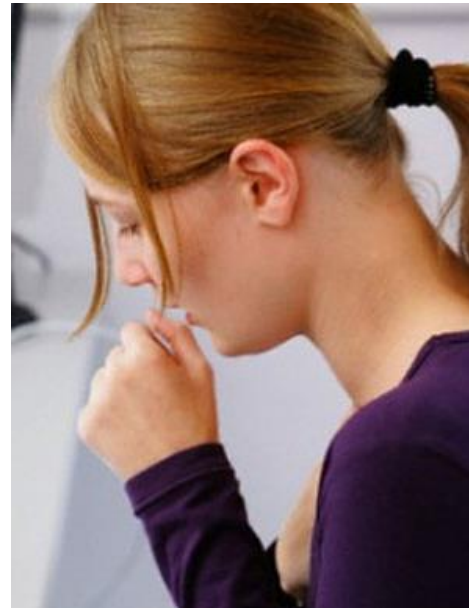
# SYMPTOMS OF ASTHMA

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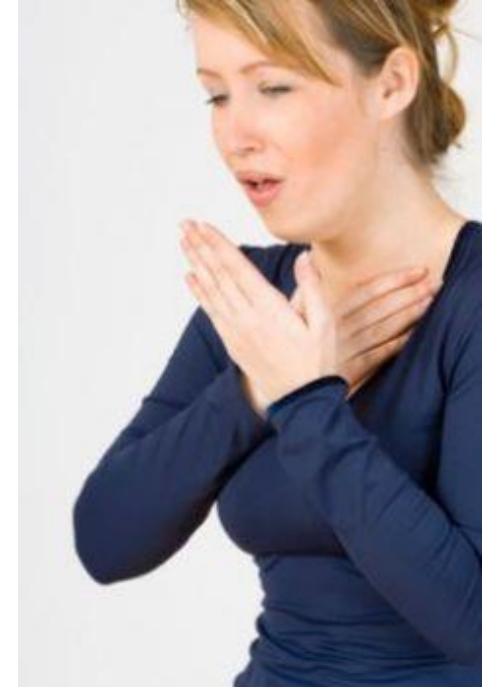


Wheeze

Cough



Tight Chest



Difficulty  
breathing  
shortness of  
breath

# **GUIDELINES-BASED CARE**

National Asthma Education  
and Prevention Program  
Expert Panel Report 3

## Guidelines for the Diagnosis and Management of Asthma

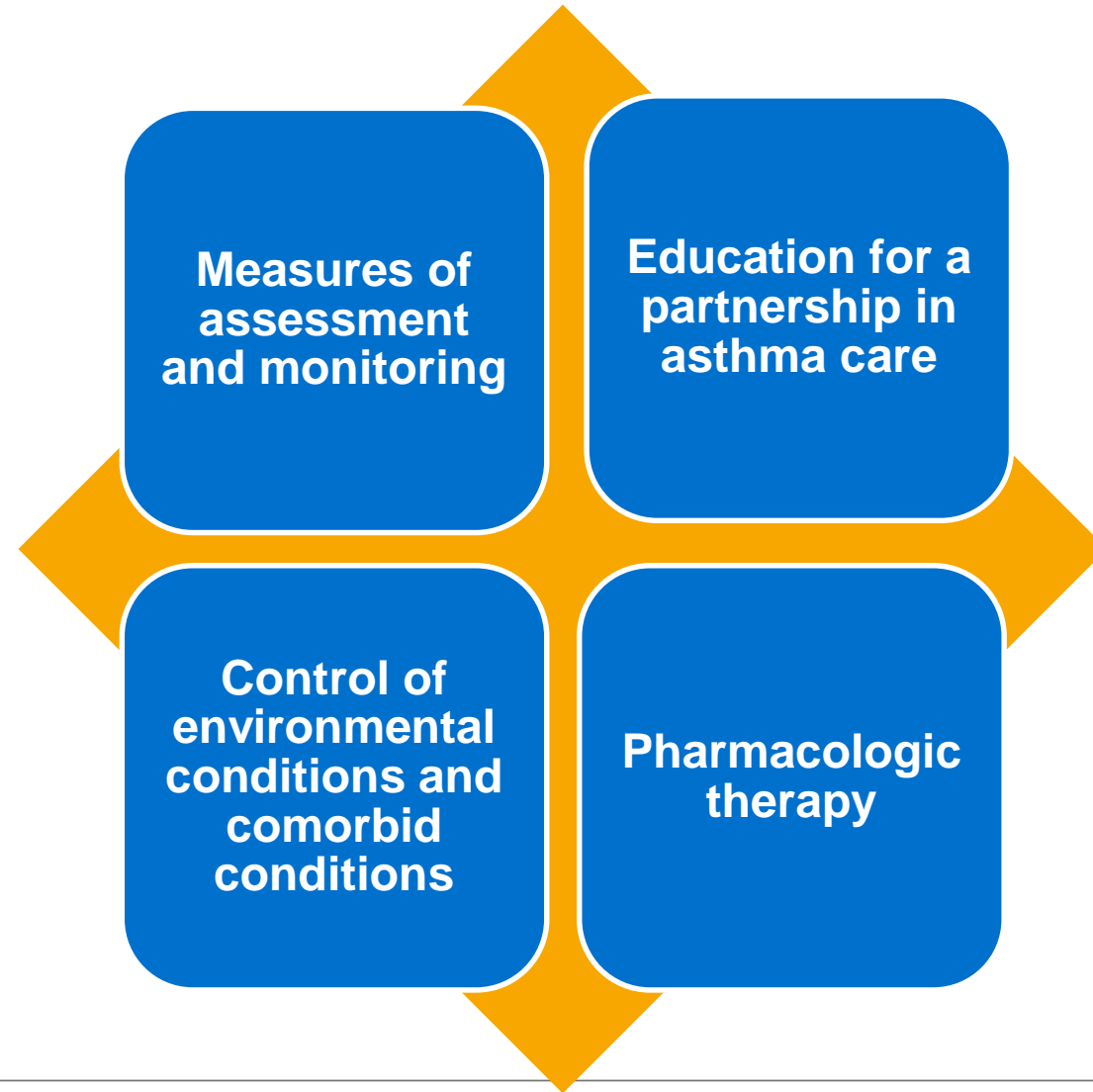


U.S. Department of Health and Human Services  
National Institutes of Health  
National Heart, Lung, and Blood Institute

# National Asthma Education And Prevention Program Expert Panel Report 3: Guidelines For The Diagnosis And Management Of Asthma

[www.nhlbi.nih.gov/guidelines/asthma/asthgdln.htm](http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.htm)

# FOUR COMPONENTS OF ASTHMA MANAGEMENT



# SIX PRIORITY MESSAGES

Diagnosis and Management of

## ASTHMA



**Use Inhaled Corticosteroids**



**Use a Written Asthma Action Plan**



**Assess Asthma Severity**



**Assess and Monitor Asthma Control**



**Schedule Periodic Asthma Visits**



**Control Environmental Exposures**

These priority messages are from National Heart, Lung, and Blood Institute's  
National Asthma Education and Prevention Program  
Guidelines Implementation Panel Report for EPR-3  
[www.nhlbi.nih.gov/guidelines/asthma/gip\\_rpt.htm](http://www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm)

# Diagnosis and Management of ASTHMA



**Use Inhaled Corticosteroids**



**Use a Written Asthma Action Plan**



**Assess Asthma Severity**



**Assess and Monitor Asthma Control**



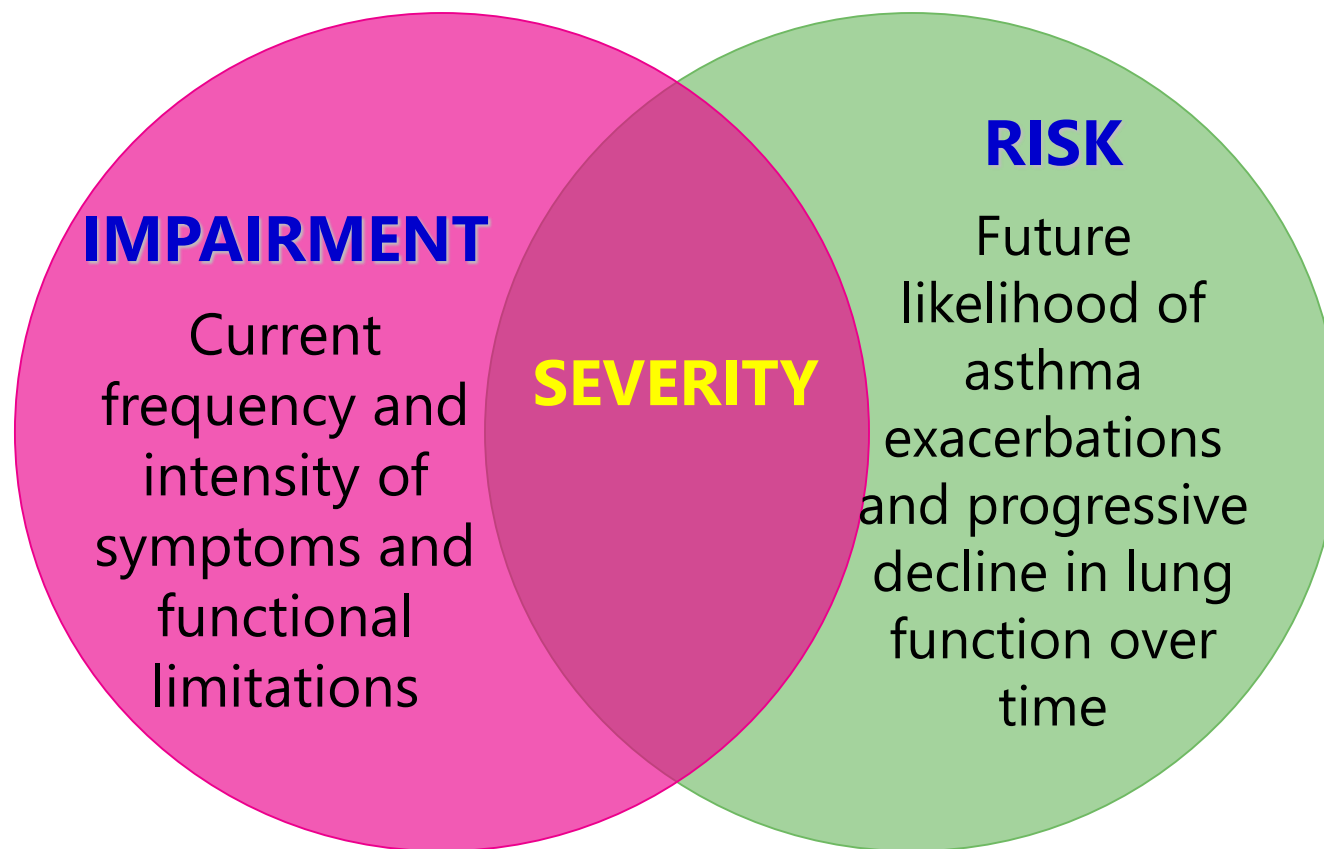
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[www.nhlbi.nih.gov/guidelines/asthma/gip\\_rpt.htm](http://www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm)

# ASSESSING ASTHMA SEVERITY



National Asthma Education and Prevention Program. *Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma* (EPR-3 2007). U.S. Department of Health and Human Services. Available at: <http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.pdf>. Accessed August 29, 2007.



# Diagnosis and Management of ASTHMA



**Use Inhaled Corticosteroids**



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[www.nhlbi.nih.gov/guidelines/asthma/gip\\_rpt.htm](http://www.nhlbi.nih.gov/guidelines/asthma/gip_rpt.htm)

# STEPWISE TREATMENT OF ASTHMA

- Based on severity assessment the HCP will choose the appropriate medication
- For all patients with persistent asthma (mild-moderate-severe) the preferred first line treatment is to use a daily inhaled steroid
- Health Home Care Managers should ask what type of medication the member is taking and how often

**Respiratory Inhalers At a Glance 2017**

Allegry & Asthma NETWORK  
College of Allergy, Asthma & Immunology

Allegry & Asthma Network is a national nonprofit organization dedicated to ending needless death and suffering due to asthma, allergies and related conditions through outreach, education, advocacy and research.  
800.878.4403

**Short-acting beta<sub>2</sub>-agonist bronchodilators** relax tight muscles in airways and offer quick relief of symptoms such as coughing, wheezing and shortness of breath for 3-6 hours

**Long-acting beta<sub>2</sub>-agonist bronchodilators** relax tight muscles in airways and offer lasting relief of symptoms such as coughing, wheezing and shortness of breath for at least 12 hours

**Inhaled corticosteroids** reduce and prevent swelling of airway tissue; they do not relieve sudden symptoms of coughing, wheezing or shortness of breath

**Combination medications** contain both inhaled corticosteroid and long-acting beta<sub>2</sub>-agonist (LABA)

**Muscarinic antagonist (anticholinergic) bronchodilators** relieve cough, sputum production, wheeze and chest tightness associated with chronic lung diseases

**Combination anticholinergic and beta<sub>2</sub>-agonist** Short-acting

Legend: [Dose Indicator] = DOSE INDICATOR [A] = ASTHMA [C] = COPD [S] = BUILT-IN SPACER

Reviewed by Dennis Williams, PharmD ©2017 Allegry & Asthma Network

# ASTHMA MEDICATIONS

- Controllers (anti-inflammatory)

- Help to prevent an asthma episode
- Are taken daily
- Does not eliminate the need for quick relief medications



Flovent



Pulmicort  
Inhaler



Qvar



Singularir



Advair Diskus

- Quick relief medications (inhaled bronchodilators)

- Fast-acting (RESCUE)
- Relieve symptoms during an asthma episode
- Are taken as needed

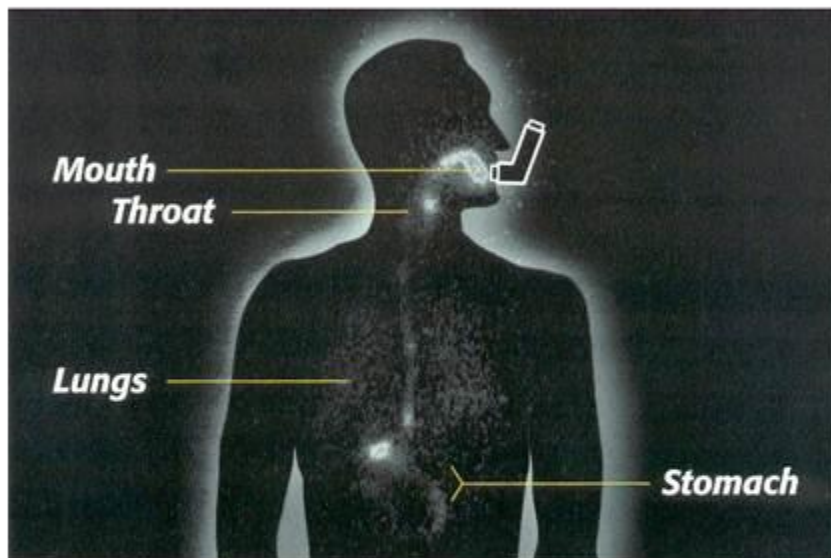


# VALVED HOLDING CHAMBERS OR SPACERS

- The most effective way to deliver asthma medications when using an inhaled medication
- Slows down the speed of delivery such that there is medication deposition to the airways, rather than the posterior wall of the pharynx
- Decreases need for coordination between actuation and inhalation
- Mouth piece or face mask available: Must be a one way valved holding chamber

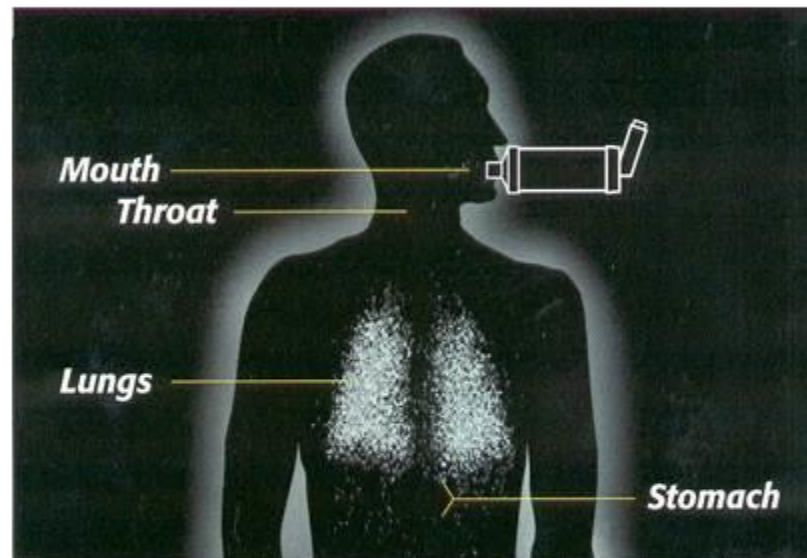


# Why use a **Spacer** with an Inhaler?



**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 <sup>99m</sup>Tc labeled particles of albuterol using a metered dose inhaler, a metered dose 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 Respiroics HealthScan Inc.

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

# Diagnosis and Management of ASTHMA



**Use Inhaled Corticosteroids**



**Use a Written Asthma Action Plan**



**Assess Asthma Severity**



**Assess and Monitor Asthma Control**



**Schedule Periodic Asthma Visits**



**Control Environmental Exposures**

# ASTHMA ACTION PLANS

- Every child with asthma should have an action plan, especially those on more than one medication
- A copy should be kept with the medical provider, and provided to school/camp, coach, babysitter/care provider
- Empowers caregivers to administer rescue medications
- An asthma action plan should be created with the provider with input from the patient and the family
- Health Home Care Managers can be the bridge between the family and the provider to help develop an asthma action that works for them

**Asthma Action Plan**

Name \_\_\_\_\_ Date of Birth \_\_\_\_\_ Grade/Teacher \_\_\_\_\_  
Health Care Provider \_\_\_\_\_ Health Care Provider's Office Phone \_\_\_\_\_ Medical Record Number \_\_\_\_\_  
Parent/Guardian \_\_\_\_\_ Phone \_\_\_\_\_ Alternate Phone \_\_\_\_\_  
Parent/Guardian/Adults Emergency Contact \_\_\_\_\_ Phone \_\_\_\_\_ Alternate Phone \_\_\_\_\_

**DIAGNOSIS OF ASTHMA SEVERITY**  Intermittent  Persistent  Mild  Moderate  Severe

**ASTHMA TRIGGERS** (Things That Make Asthma Worse)  
 Smoke  Colds  Exercise  Animals  Dust  Food  
 Weather  Odors  Pollen  Other \_\_\_\_\_

**GREEN ZONE: GOOD!** Take **DAILY CONTROLLER MEDICINES (PREVENTION) Medicines EVERY DAY**  
 No daily controller medicines required  
 Daily controller medication(s) \_\_\_\_\_  
Take \_\_\_\_\_ puffs or \_\_\_\_\_ inhaler(s) \_\_\_\_\_ daily.  
 For asthma with exercise, ADD \_\_\_\_\_ puffs with spacer \_\_\_\_\_ minutes before exercise.  
**ALWAYS RINSE YOUR MOUTH AFTER USING YOUR DAILY INHALED MEDICINE.**

**YELLOW ZONE: CAUTION!** Continue **DAILY CONTROLLER MEDICINES** and **ADD QUICK RELIEF Medicines**  
Take daily controller medicine if ordered and add the quick-relief medicine when you have troubling problems:  
 Take \_\_\_\_\_ puffs every \_\_\_\_\_ hours, if needed. Always use a spacer, some children may need a mask.  
 Take a \_\_\_\_\_ nebulizer treatment every \_\_\_\_\_ hours, if needed.  
 Other \_\_\_\_\_  
If quick-relief medicine does not HELP within \_\_\_\_\_ minutes, take it again and CALL your Health Care Provider.  
If using quick-relief medicine more than \_\_\_\_\_ times in \_\_\_\_\_ hours, CALL your Health Care Provider.  
**IF IN THE YELLOW ZONE MORE THAN 24 HOURS, CALL HEALTH CARE PROVIDER.**

**RED ZONE: EMERGENCY!** Continue **DAILY CONTROLLER MEDICINES** and **QUICK-RELIEF Medicines** and **GET HELP!**  
 Take \_\_\_\_\_ puffs every \_\_\_\_\_ hours, if needed. Always use a spacer, some children may need a mask.  
 Take a \_\_\_\_\_ nebulizer treatment every \_\_\_\_\_ hours, if needed.  
 Other \_\_\_\_\_  
**CALL HEALTH CARE PROVIDER AGAIN WHILE GIVING QUICK-RELIEF MEDICINE. If health care provider cannot be contacted, CALL 911 FOR AN AMBULANCE OR GO DIRECTLY TO THE EMERGENCY DEPARTMENT!**

**REQUIRED PERMISSIONS FOR ALL MEDICATION USE AT SCHOOL.**  
Health Care Provider Permission: I request this plan to be followed as written. This plan is valid for the school year \_\_\_\_\_ Date \_\_\_\_\_  
Parent/Guardian Permission: I give consent for the school nurse to give the medications listed on this plan or for trained school staff to assist my child to take them after review by the school nurse. This plan will be shared with school staff who care for my child. \_\_\_\_\_ Date \_\_\_\_\_  
Signature \_\_\_\_\_ Date \_\_\_\_\_

**OPTIONAL PERMISSIONS FOR INDEPENDENT MEDICATION CARRY AND USE AT SCHOOL.**  
Health Care Provider Independent Carry and Use Permission: I attest that this student has demonstrated to me that they can self-administer this rescue medication effectively and may carry and use this medication independently at school with no supervision by school personnel. \_\_\_\_\_ Date \_\_\_\_\_  
Parent/Guardian Independent Carry and Use Permission (If Ordered by Provider Above): I agree my child can self-administer this rescue medication effectively and may carry and use this medication independently at school with no supervision by school personnel. \_\_\_\_\_ Date \_\_\_\_\_  
Signature \_\_\_\_\_ Date \_\_\_\_\_

New York State Department of Health  
COPY FOR PATIENT

# ASTHMA ACTION PLANS

An action plan should contain:

- The frequency and dose of daily medications written in simple language
- The medications to add when a person starts having symptoms, including dose & frequency
- Signs and symptoms to monitor for
- An emergency contact number for the doctor
- Indications for when to go to the ER
- Permission for all medication use at school
- Permission for independent medication carry and use at school

## Asthma Action Plan


Date Completed: \_\_\_\_\_

Name	Date of Birth	Grade/Teacher
Health Care Provider	Health Care Provider's Office Phone	Medical Record Number
Parent/Guardian	Phone	Alternate Phone
Parent/Guardian/Alternate Emergency Contact	Phone	Alternate Phone

**DIAGNOSIS OF ASTHMA SEVERITY**  
 Intermittent    Persistent   [ Mild    Moderate    Severe ]

**ASTHMA TRIGGERS** (Things That Make Asthma Worse)  
 Smoke    Colds    Exercise    Animals    Dust    Food  
 Weather    Odors    Pollen    Other \_\_\_\_\_

**GREEN ZONE: GO!**      Take These **DAILY CONTROLLER MEDICINES (PREVENTION)** Medicines **EVERY DAY**

You have **ALL** of these: 

- Breathing is easy
- No cough or wheeze
- Can work and play
- Can sleep all night

No daily controller medicines required


Daily controller medicine(s): \_\_\_\_\_

Take \_\_\_\_\_ puff(s) or \_\_\_\_\_ tablet(s) \_\_\_\_\_ daily.

For asthma with exercise, ADD: \_\_\_\_\_ puffs with spacer \_\_\_\_\_ minutes before exercise

**ALWAYS RINSE YOUR MOUTH AFTER USING YOUR DAILY INHALED MEDICINE.**

**YELLOW ZONE: CAUTION!**      Continue **DAILY CONTROLLER MEDICINES** and **ADD QUICK-RELIEF** Medicines

You have **ANY** of these: 

- Cough or mild wheeze
- Tight chest
- Shortness of breath
- Problems sleeping, working, or playing

Take daily controller medicine if ordered and add this quick-relief medicine when you have breathing problems:

\_\_\_\_\_ inhaler \_\_\_\_\_ mcg

Take \_\_\_\_\_ puffs every \_\_\_\_\_ hours, if needed. Always use a spacer, some children may need a mask.


\_\_\_\_\_ nebulizer \_\_\_\_\_ mg / \_\_\_\_\_ ml

Take a \_\_\_\_\_ nebulizer treatment every \_\_\_\_\_ hours, if needed.

Other \_\_\_\_\_

If quick-relief medicine does not HELP within \_\_\_\_\_ minutes, take it again and CALL your Health Care Provider if using quick-relief medicine more than \_\_\_\_\_ times in \_\_\_\_\_ hours, CALL your Health Care Provider **IF IN THE YELLOW ZONE MORE THAN 24 HOURS, CALL HEALTH CARE PROVIDER.**

**RED ZONE: EMERGENCY!**      Continue **DAILY CONTROLLER MEDICINES** and **QUICK-RELIEF** Medicines and **GET HELP!**

You have **ANY** of these: 

- Very short of breath
- Medicine is not helping
- Breathing is fast and hard
- Nose wide open, ribs showing, can't talk well
- Lips or fingernails are grey or bluish

\_\_\_\_\_ inhaler \_\_\_\_\_ mcg

Take \_\_\_\_\_ puffs every \_\_\_\_\_ hours, if needed. Always use a spacer, some children may need a mask.

\_\_\_\_\_ nebulizer \_\_\_\_\_ mg / \_\_\_\_\_ ml

Take a \_\_\_\_\_ nebulizer treatment every \_\_\_\_\_ hours, if needed.

Other \_\_\_\_\_

**CALL HEALTH CARE PROVIDER AGAIN WHILE GIVING QUICK-RELIEF MEDICINE. If health care provider cannot be contacted, CALL 911 FOR AN AMBULANCE OR GO DIRECTLY TO THE EMERGENCY DEPARTMENT!**

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**Parent/Guardian Permission:** I give consent for the school nurse to give the medications listed on this plan or for trained school staff to assist my child to take them after review by the school nurse. This plan will be shared with school staff who care for my child.

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Signature \_\_\_\_\_ Date \_\_\_\_\_

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Signature \_\_\_\_\_ Date \_\_\_\_\_

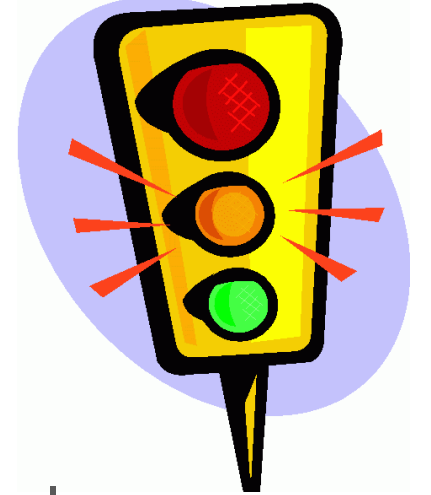
4850
New York State Department of Health
5/17

COPY FOR PATIENT



# ACTIONS TO TAKE FOR AN ASTHMA ATTACK

- Have someone stay with the person
- Follow the person's Asthma Action Plan
- Make certain quick relief medicine is available and used properly
- Observe person to ensure they improve
- Communicate with emergency contacts if the person with asthma is experiencing breathing difficulties

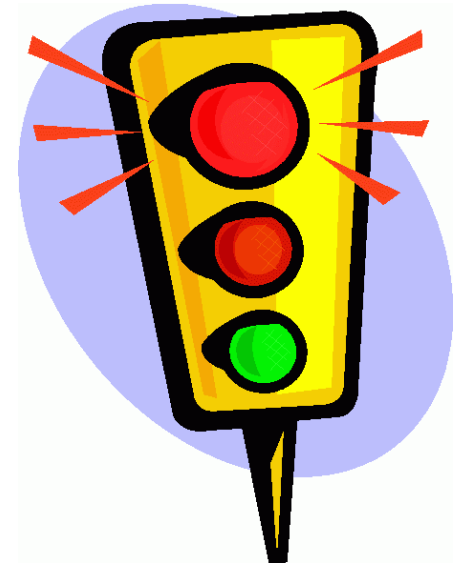


# ACTIONS TO TAKE FOR AN ASTHMA EMERGENCY

- Have someone stay with the person
- If person does NOT have quick-relief medicine or the medication DOES NOT WORK – CHECK ASTHMA ACTION PLAN

**OR**

- Call 911 if:
  - Person cannot breathe
  - Struggling to breathe
  - Chest/neck are pulled in or sucked in with each breath
  - Trouble walking or talking
  - Nostrils wide open
  - Lips or fingertips are blue



# Diagnosis and Management of ASTHMA



**Use Inhaled Corticosteroids**



**Use a Written Asthma Action Plan**



**Assess Asthma Severity**



**Assess and Monitor Asthma Control**



**Schedule Periodic Asthma Visits**



**Control Environmental Exposures**

# SCHEDULE FOLLOW-UP VISITS

- Schedule follow-up visits at periodic intervals to assess asthma control and modify treatment if needed
  - ✓ 1-6 months depending on control
  - ✓ 3-month intervals if step down in medication is anticipated
- Consider a patient reminder system for these visits



# Diagnosis and Management of ASTHMA



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**Control Environmental Exposures**

# GOALS OF ASTHMA CONTROL

- ✓ Sleep through the night
- ✓ Not cough or wheeze during the day or night
- ✓ Be physically active
- ✓ Not miss school or work due to asthma
- ✓ Not have asthma-related visits to the emergency room
- ✓ Not have a hospitalization due to asthma



# GOOD CONTROL DEPENDS ON

- Being able to get medical care
- Having good self-management skills
- Having good communication between a person with asthma and those around them



# HOW DO YOU KNOW YOUR ASTHMA IS NOT IN CONTROL?

## The Rules of Two

- Do you take your rescue inhaler more than **TWO** times per week?
- Do you awaken at night with asthma more than **TWO** times per month?
- Do you refill your rescue inhaler more than **TWO** times per year?

If you answer **“YES”** to any of these questions, speak to your HCP to discuss why your asthma may not be in good control.



## Childhood Asthma Control Test for children 4 to 11 years.

### How to take the Childhood Asthma Control Test





- Step 1** Let your child respond to the first four questions (1 to 4). If your child needs help reading or understanding the question, you may help, but let your child select the response. Complete the remaining three questions (5 to 7) on your own and without letting your child's response influence your answers. There are no right or wrong answers.
- Step 2** Write the number of each answer in the score box provided.
- Step 3** Add up each score box for the total.
- Step 4** Take the test to the doctor to talk about your child's total score.

**19**  
or less

If your child's score is 19 or less, it may be a sign that your child's asthma is not controlled as well as it could be. No matter what the score, bring this test to your doctor to talk about your child's results.

### Have your child complete these questions.

1. How is your asthma today?

				SCORE
				<input type="text"/>

2. How much of a problem is your asthma when you run, exercise or play sports?

				
				<input type="text"/>

3. Do you cough because of your asthma?

				
				<input type="text"/>

4. Do you wake up during the night because of your asthma?




				
				<input type="text"/>

### Please complete the following questions on your own.







5. During the last 4 weeks, how many days did your child have any daytime asthma symptoms?

						
						<input type="text"/>

6. During the last 4 weeks, how many days did your child wheeze during the day because of asthma?

						
						<input type="text"/>

7. During the last 4 weeks, how many days did your child wake up during the night because of asthma?

						
						<input type="text"/>



TOTAL

Enter Name \_\_\_\_\_  
 Enter Address \_\_\_\_\_  
 Enter City/State/Zip \_\_\_\_\_

Today's Date: \_\_\_\_\_  
 Patient's Name: \_\_\_\_\_

### FOR PATIENTS:

## Take the Asthma Control Test™ (ACT) for people 12 yrs and older.






Know your score. Share your results with your doctor.

Step 1 Write the number of each answer in the score box provided.

Step 2 Add the score boxes for your total.

Step 3 Take the test to the doctor to talk about your score.

1. In the past 4 weeks, how much of the time did your asthma keep you from getting as much done at work, school or at home?

All of the time		Most of the time		Some of the time		A little of the time		None of the time		SCORE
										<input type="text"/>

2. During the past 4 weeks, how often have you had shortness of breath?

More than once a day		Once a day		3 to 6 times a week		Once or twice a week		Not at all		
										<input type="text"/>






3. During the past 4 weeks, how often did your asthma symptoms (wheezing, coughing, shortness of breath, chest tightness or pain) wake you up at night or earlier than usual in the morning?

4 or more nights a week		2 or 3 nights a week		Once a week		Once or twice		Not at all		
										<input type="text"/>

4. During the past 4 weeks, how often have you used your rescue inhaler or nebulizer medication (such as albuterol)?

3 or more times per day		1 or 2 times per day		2 or 3 times per week		Once a week or less		Not at all		
										<input type="text"/>

5. How would you rate your asthma control during the past 4 weeks?

Not controlled at all		Poorly controlled		Somewhat controlled		Well controlled		Completely controlled		
										<input type="text"/>

Copyright 2002, by QualityMetric Incorporated.  
 Asthma Control Test is a trademark of QualityMetric Incorporated.

TOTAL

**If your score is 19 or less, your asthma may not be controlled as well as it could be. Talk to your doctor.**

### FOR PHYSICIANS:

#### The ACT is:

- A simple, 5-question tool that is self-administered by the patient
- Recognized by the National Institutes of Health
- Clinically validated by specialist assessment and spirometry<sup>1</sup>

Asthma Control Test™ copyright, QualityMetric Incorporated 2002, 2004. All Rights Reserved. Asthma Control Test™ is a trademark of QualityMetric Incorporated.  
 Adapted with permission of QualityMetric, Inc.

Reference: 1. Nathan RA et al. J Allergy Clin Immunol. 2004;113:59-65.

05081-025 (Revised 9-08) Regional Health Education

# Diagnosis and Management of ASTHMA



**Use Inhaled Corticosteroids**



**Use a Written Asthma Action Plan**



**Assess Asthma Severity**



**Assess and Monitor Asthma Control**



**Schedule Periodic Asthma Visits**



**Control Environmental Exposures**

# CONTROL ENVIRONMENTAL EXPOSURES

- Review the environmental history of exposures
- Develop a multi-pronged strategy to reduce exposure to the patient's triggers

## What are your Asthma Triggers?

There are many things that can cause someone to have an asthma attack. We call these things triggers. Not all of these things are triggers for everyone. **Circle your triggers.** Ask your doctor for help if you don't know what your triggers are or if you can't stay away from them.



# COMMON HOME TRIGGERS



Animal allergens



Dust mites



Cockroach allergens



Mold

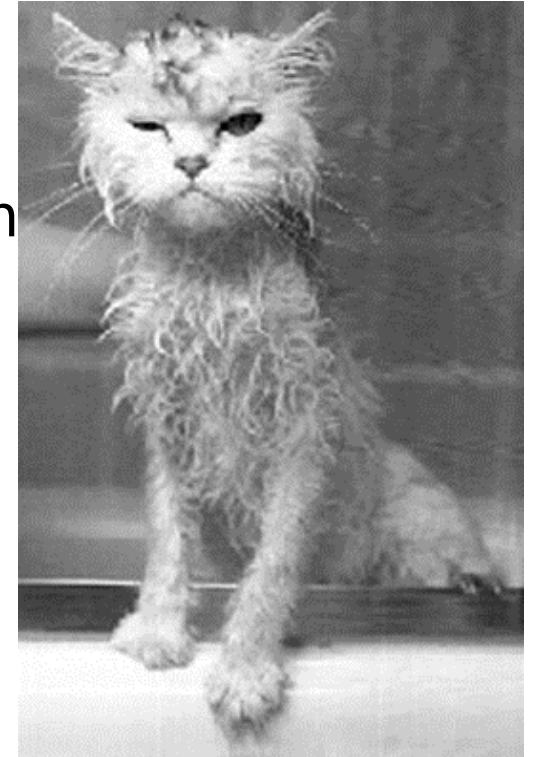


Tobacco Smoke

# ANIMAL ALLERGENS

All warm-blooded animals produce flakes of skin (dander), feces, urine and dried saliva that can cause allergic reactions.

- Best option - Keep animals out of house
- If you can't keep the pet outside, keep it out of the bedroom and keep the door shut
- Wash hands and clothes after contact with the pet
- Remove upholstered furniture and carpets from the home or isolate the pet in areas without these items



# DUST MITES

- Require humidity and human dander to survive, thrive in most areas of the US but usually not present in high altitudes or arid areas
- High levels are found in bedding, pillows, mattress, upholstered furniture, carpets, clothes and soft toys

**IMPORTANT:** Since the patient's bed is the most likely place for dust mites to be found this is the best place for trigger control measures



Photo Credit: American Academy of Allergy, Asthma and Immunology

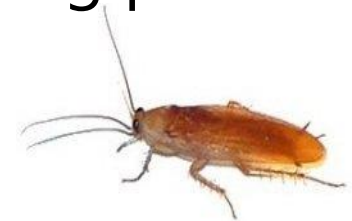
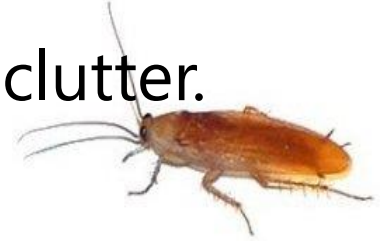
# DUST MITES CONTROL MEASURES

- Encase the pillow and mattress in an allergen-impermeable cover
- Wash all bedding in hot (> 130°F) water weekly\*
- Keep humidity below 60% (ideally 30%-50%).
- Remove carpets from the bedroom
- Avoid sleeping or lying on upholstered furniture
- In children's beds, minimize the number of stuffed toys; each week, wash the toys in hot water or freeze them
- Room air filtration devices are not recommended to control dust mite exposure – the allergens are air-borne only briefly and not removed via air filtration.

(\*Exposure to dry heat or freezing kills dust mites but does not remove the allergen.)

# COCKROACH CONTROL MEASURES

- Keep counters, sinks, tables and floors clean and clear of clutter.
- Fix plumbing leaks and other moisture problems.
- Remove piles of boxes, newspapers and other items where cockroaches may hide.
- Seal all entry points.
- Make sure trash in your home is properly stored in containers with lids that close securely; remove trash daily.
- Try using poison baits, boric acid or traps first before using pesticide sprays.





# Common Home Triggers: Irritants



## Molds

Basements  
Bathrooms

## Smoke & Gases

Kerosene heaters  
Wood stoves and/or  
Fireplaces

## VOCs and Strong Smells

Hairspray,  
cooking spray &  
odors  
Furniture polish

## Tobacco Smoke

Secondhand  
smoke  
Thirdhand smoke

# MOLD CONTROL MEASURES

- Moisture control = mold control, so - ACT QUICKLY.
  - If wet or damp materials or areas are dried 24-48 hours after a leak or spill, in most cases mold will not grow.
- Scrub mold off hard surfaces with detergent and water; dry completely.
- Absorbent or porous materials, such as moldy ceiling tiles and carpet, may have to be thrown away.
- Dehumidify basements if possible.

(SOURCE: *A Brief Guide to Mold and Moisture in Your Home*, EPA Publication #402-K-02-003.)



# TOBACCO SMOKE CONTROL MEASURES

- If you smoke, ask for ways to help you quit. Ask family members to quit.
- Do not allow smoking in your home or car.
- Be sure no one smokes at your child's daycare or school.
- Advocate for smoke free workplaces.



# SECONDHAND AND THIRDHAND SMOKE

- Exposure is linked to increased asthma symptoms, decreased lung function and greater use of health services among those who have asthma.
- Message to smokers – Quit or at least smoke outside (may not adequately reduce exposure).
- Provide smoking cessation support if possible.
- Thirdhand smoke clings to clothes, furniture, drapes, walls bedding, carpets, vehicles and other surfaces long after smoking has stopped
  - Thirdhand smoke residue builds up over time



# TECHNIQUES THAT MAY MODIFY INDOOR AIR

- Vacuum 1-2 times per week
  - Get someone else to do this if possible or wear a dust mask
- Damp mop
- Air conditioning during warm weather recommended for asthma patients
- Dehumidifiers to reduce house-dust mite levels in high-humidity areas
- HEPA filters to reduce airborne cat dander, mold spores and particulate tobacco smoke.
  - Not a substitute for more effective measures!

# HEALTH HOME CARE MANAGERS ... FIRST LINE OF DEFENSE

- Work with children to find out when and where in the home they have more asthma symptoms
- Work with family members to examine household conditions
- Work to assist and link the family to available resources to make household modifications



# OUTDOOR ENVIRONMENT

- Ask the patient:

“Is your asthma worse in spring, summer, fall or parts of the growing season?”

## Pollen and Molds



- Avoid areas of high pollution; stay indoors on ozone alert days when possible.
- Do not use air cleaners that create ozone.

## Ozone

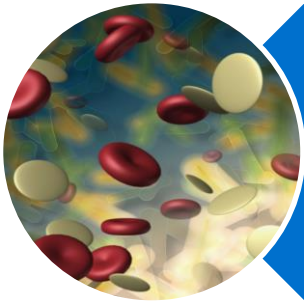


# INFECTIONS

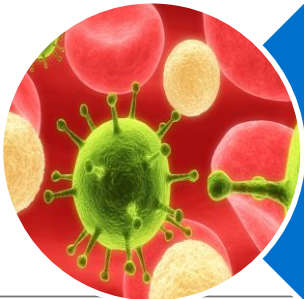


## Viral respiratory infections

Respiratory infections can exacerbate asthma symptoms, particularly in children under age 10.



## Bacterial infections



Infections such as Mycoplasma and Chlamydia may contribute to asthma exacerbations.



# INFECTIONS

Respiratory infections are the #1 trigger for children with asthma



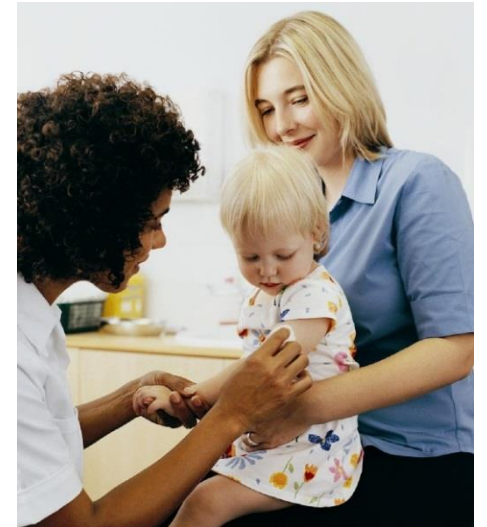
Keep hands away  
from face



Wash hands



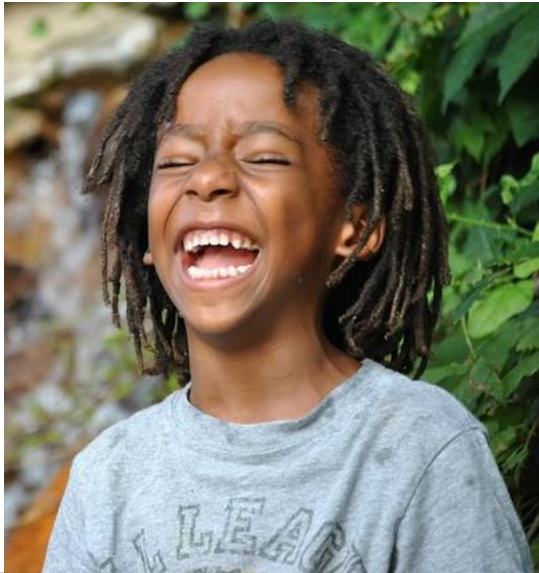
Use separate towels



Get a flu shot

# OTHER TRIGGERS

Strong  
Emotions



Exercise-  
Induced  
Asthma



Exercise may be a trigger for asthma, but asthma should not limit physical activity

# Schools: Potential Concerns

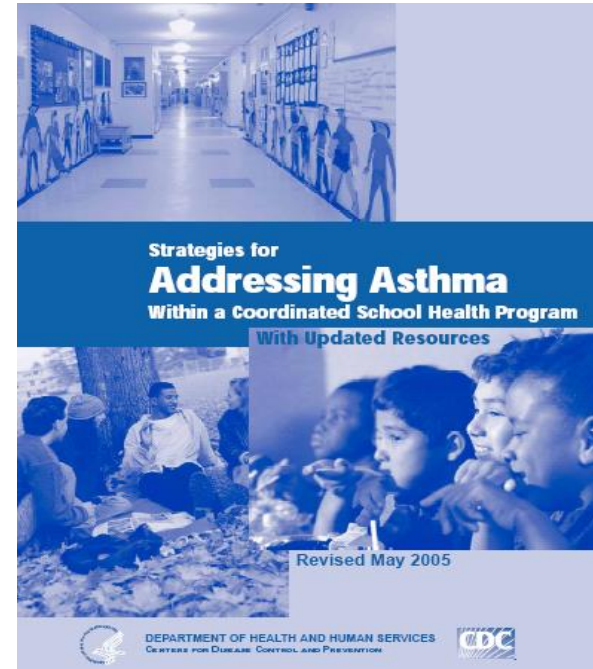
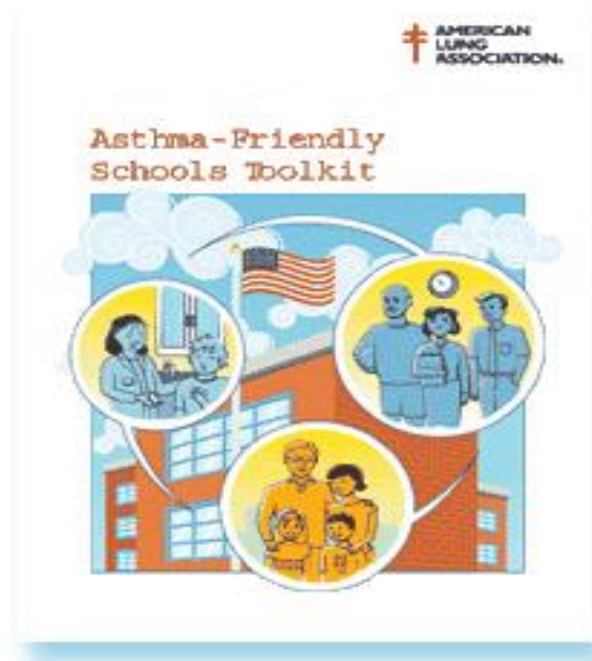
- 
- Poor indoor air quality
  - Leaky roofs/wet carpeting = Molds
  - New carpeting/chemicals = Toxic fumes
  - Building repairs/renovations = Dust
  - Idling school busses = Diesel fumes
  - Unventilated portable classrooms
  - Fragrances (Magic Markers, air fresheners, art supplies)
  - Animals in classroom
  - Cleaning supplies
  - Classroom environment (old carpeting, furniture)
  - Insecticides, herbicides, fungicides
  - Chalk dust, foods
  - Access to medications
  - Access to a school nurse

# Asthma-Friendly School Checklist

- Tobacco free campus? Good indoor air quality?
- Policy on inhalers?
- Written asthma emergency plan for teachers & staff?
- Updated asthma action plans for students with asthma on file at school?
- School nurse?
- Education for school staff/teachers about asthma?
- Degree of participation asthma student has in PE, sports, recess, field trips?

*Health Home Care Managers can collaborate with the school to ensure a proper school environment and plan for the child*

# Asthma-Friendly School Resources



It is recommended that a clinician prepare a written asthma action plan for the school setting. In addition to medications and emergency response, this plan should identify factors that make students' asthma worse so that the school may help avoid exposure.

# SUMMARY

- Asthma episodes can be prevented.
- When asthma symptoms go away, asthma is still there.
- Asthma is treatable. All episodes should receive immediate attention.
- A severe asthma episode IS an emergency!
- A person with mild asthma can suffer a fatal episode.

# WHAT CAN A CARE MANAGER DO TO SUPPORT ASTHMA CONTROL?

A Health Home Care Manager can reinforce these key messages:

- People with asthma should always have their **quick relief medication** with them for relief of symptoms.
- **Controller medications** should be taken every day, even when feeling well, for people who have persistent asthma.
- It is important to identify asthma triggers and know how to avoid them.
- Good communication is essential for effective asthma management.
- With proper management, everyone with asthma can live active and healthy lives.

# RESOURCES



# AVAILABLE FREE THROUGH NYS DOH

### Key Questions

Have an extra check to talk about with your doctor. Turn this off and take it to your next asthma checkup.

**What do I need to know?**

What is asthma?  
What makes my asthma worse?  
Can I tell if an asthma attack is coming?  
Will I always have asthma?

**How can I keep my asthma under control?**

How and when should I take my asthma medicines?  
What kinds of asthma medicines are I taking (quick relief, controller, etc.)?  
What should I do at home at work or school to make my asthma better?  
Do I have to limit any of my activities?  
When should I get help from a doctor or help for my asthma?  
How often should I see my doctor for asthma check-ups?

**Why will this help me?**

Why do I need to know about my asthma triggers?  
Why is it important to take my medicines the right way?  
What can I expect to happen if I do it, or not, or these things?  
What can I expect to happen if I don't?

### Trigger Tracker

Use copies of this tool to keep track of your triggers. Bring it to your next asthma checkup.

**Where was I when my asthma got worse?**

Home Work School Outdoors

Other: \_\_\_\_\_

**When did my asthma get worse?**

Morning Afternoon Evening Night

**What was around me or what was I doing when my asthma got worse?**

Smoking Pets Feeds Food Cleaning Dust Colds/Flu Mold Exercising Hot or cold weather Sleeping Laughing

Other: \_\_\_\_\_

**How were my symptoms?**

OK Not OK Bad

**What did I do about my asthma today?**

Controlled medicine Quick relief medicine Doctor

### Trigger Tracker

Use copies of this tool to keep track of your triggers. Bring it to your next asthma checkup.

**Where was I when my asthma got worse?**

Home Work School Outdoors

Other: \_\_\_\_\_

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Other: \_\_\_\_\_

**How were my symptoms?**

OK Not OK Bad

**What did I do about my asthma today?**

Controlled medicine Quick relief medicine Doctor

New York State Department of Health www.nyhealth.gov/diseases/asthma/brochures.html

## Asthma Action Plan

Date Completed: \_\_\_\_\_

Name	Date of Birth	Grade/Teacher
Health Care Provider	Health Care Provider's Office Phone	Medical Record Number
Parent/Guardian	Phone	Alternate Phone
Parent/Guardian/Alternate Emergency Contact	Phone	Alternate Phone

**DIAGNOSIS OF ASTHMA SEVERITY**  
 Intermittent  Persistent  Mild  Moderate  Severe

**ASTHMA TRIGGERS (Things That Make Asthma Worse)**  
 Smoke  Colds  Exercise  Animals  Dust  Food  Weather  Odors  Pollen  Other \_\_\_\_\_

**GREEN ZONE: GO!** Take These **DAILY CONTROLLER MEDICINES (PREVENTION) Medicines EVERY DAY**

You have **ALL** of these:  
 • Breathing is easy  
 • No cough or wheeze  
 • Can work and play  
 • Can sleep all night

No daily controller medicines required  
 Daily controller medicine(s): \_\_\_\_\_  
 Take \_\_\_\_\_ puff(s) or \_\_\_\_\_ tablet(s) daily.  
 For asthma with exercise, ADD: \_\_\_\_\_ puffs with spacer \_\_\_\_\_ minutes before exercise  
**ALWAYS RINSE YOUR MOUTH AFTER USING YOUR DAILY INHALED MEDICINE.**

**YELLOW ZONE: CAUTION!** Continue **DAILY CONTROLLER MEDICINES** and **ADD QUICK-RELIEF Medicines**

You have **ANY** of these:  
 • Cough or mild wheeze  
 • Tight chest  
 • Shortness of breath  
 • Problems sleeping, working, or playing

\_\_\_\_\_ Inhaler \_\_\_\_\_ mcg  
 Take \_\_\_\_\_ puffs every \_\_\_\_\_ hours, if needed. Always use a spacer, some children may need a mask.  
 \_\_\_\_\_ Nebulizer \_\_\_\_\_ mg / \_\_\_\_\_ ml  
 Take a \_\_\_\_\_ nebulizer treatment every \_\_\_\_\_ hours, if needed.  
 Other \_\_\_\_\_  
 If quick-relief medicine does not HELP within \_\_\_\_\_ minutes, take it again and CALL your Health Care Provider  
 If using quick-relief medicine more than \_\_\_\_\_ times in \_\_\_\_\_ hours, CALL your Health Care Provider  
**IF IN THE YELLOW ZONE MORE THAN 24 HOURS, CALL HEALTH CARE PROVIDER.**

**RED ZONE: EMERGENCY!** Continue **DAILY CONTROLLER MEDICINES** and **QUICK-RELIEF Medicines** and **GET HELP!**

You have **ANY** of these:  
 • Very short of breath  
 • Medicine is not helping  
 • Breathing is not and hard  
 • Nose wide open, ribs showing, can't talk well  
 • Lips or fingernails are grey or bluish

\_\_\_\_\_ Inhaler \_\_\_\_\_ mcg  
 Take \_\_\_\_\_ puffs every \_\_\_\_\_ hours, if needed. Always use a spacer, some children may need a mask.  
 \_\_\_\_\_ Nebulizer \_\_\_\_\_ mg / \_\_\_\_\_ ml  
 Take a \_\_\_\_\_ nebulizer treatment every \_\_\_\_\_ hours, if needed.  
**CALL HEALTH CARE PROVIDER AGAIN WHILE GIVING QUICK-RELIEF MEDICINE. If health care provider cannot be contacted, CALL 911 FOR AN AMBULANCE OR GO DIRECTLY TO THE EMERGENCY DEPARTMENT!**

**REQUIRED PERMISSIONS FOR ALL MEDICATION USE AT SCHOOL**

**Health Care Provider Permission:** I request this plan to be followed as written. This plan is valid for the school year \_\_\_\_\_  
 Signature \_\_\_\_\_ Date \_\_\_\_\_

**Parent/Guardian Permission:** I give consent for the school nurse to give the medications listed on this plan or for trained school staff to assist my child to take them after review by the school nurse. This plan will be shared with school staff who care for my child.  
 Signature \_\_\_\_\_ Date \_\_\_\_\_

**OPTIONAL PERMISSIONS FOR INDEPENDENT MEDICATION CARRY AND USE AT SCHOOL**

**Health Care Provider Independent Carry and Use Permission:** I attest that this student has demonstrated to me that they can self-administer this rescue medication effectively and may carry and use this medication independently at school with no supervision by school personnel.  
 Signature \_\_\_\_\_ Date \_\_\_\_\_

**Parent/Guardian Independent Carry and Use Permission (If Ordered by Provider Above):** I agree my child can self-administer this rescue medication effectively and may carry and use this medication independently at school with no supervision by school personnel.  
 Signature \_\_\_\_\_ Date \_\_\_\_\_

4850 New York State Department of Health 517  
 COPY FOR PATIENT

## Respiratory Inhalers

At a Glance 2017

Allergy Asthma Network is a national nonprofit organization dedicated to meeting needs and suffering due to asthma, allergies and related conditions through outreach, education, advocacy and research. 800.878.4403

**Short-acting beta-agonist bronchodilators** relax tight muscles in airways and offer quick relief of symptoms such as coughing, wheezing and shortness of breath for 1-4 hours

**Long-acting beta-agonist bronchodilators** relax tight muscles in airways and offer long relief of symptoms such as coughing, wheezing and shortness of breath for at least 12 hours

**Inhaled corticosteroids** reduce and prevent swelling of airway tissue, they do not relieve sudden symptoms of coughing, wheezing or shortness of breath

**Combination medications** contain both inhaled corticosteroid and long-acting beta-agonist (LABA)

**Muscarinic antagonist (anticholinergic) bronchodilators** relax cough, reduce production, wheezes and chest tightness associated with chronic lung disease

**Short-acting**

**Long-acting**

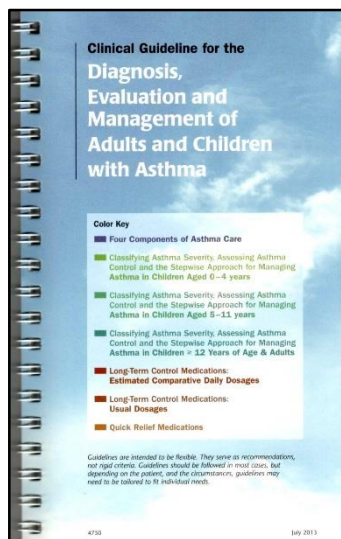
**Short-acting**

**Long-acting**

DI DOSE INDICATOR AS ASTHMA CPD COPD BS BUILT-IN SPACER RE Reviewed by Dennis Williams, PharmD ©2017 Allergy & Asthma Network

# HERE'S HOW TO GET THEM...

For an electronic publication request form, go to:  
[http://www.health.ny.gov/forms/order\\_forms/asthma.pdf](http://www.health.ny.gov/forms/order_forms/asthma.pdf)



ASTHMA and...

You, Your Child, Asthma and

## THE FLU

Do you have asthma? Does your child? The flu is more dangerous for anyone who has asthma.

### Why?

- ▶ People with asthma have swollen and sensitive airways. The flu can further inflame the airways and lungs. It can even lead to pneumonia or other infections.
  - ▶ The flu can be more serious for people with asthma. This is true even if their asthma is mild or well controlled by medication.
  - ▶ The flu can trigger asthma attacks and make asthma symptoms worse.
- To protect themselves, people with asthma need to get a flu shot.

### Is the flu a serious disease?

Yes. The flu is a virus that can cause some or all of the following symptoms; fever, cough, sore throat, runny or stuffy nose, muscle or body aches, headaches and/or fatigue. Unlike the common cold, the flu comes on suddenly, makes you very sick for a week or longer, and it can send you to the hospital and even cause death.

When a sick person coughs or sneezes, tiny droplets fly through the air. You can get sick from the droplets if they land in your eyes, nose, or mouth. You can also get the flu by touching a surface like a table or a doorknob that has flu virus on it, then touching your eyes, nose, or mouth.

You can get the flu from others even when they don't feel sick. Staying away from people who look sick is not enough to protect you.

Each year in the United States, nearly 24,000 people die from the flu.

### Why should I or my child get the flu shot?

- ▶ To save your life or your child's life. People who have asthma have a higher risk of death or serious illness from the flu than most people.
- ▶ To save time and money. You or your child will miss fewer days of work or school due to sickness.

The flu vaccine is quick, easy and safe protection. →

## NEW YORK STATE DEPARTMENT OF HEALTH ASTHMA PROGRAM PUBLICATION REQUEST FORM

RETURN TO: NYS Department of Health  
 Distribution Center  
 21 Simmons Lane  
 Menands, New York 12204  
 Email: [b0010w@health.state.ny.us](mailto:b0010w@health.state.ny.us)

For an electronic publication request form, go to:  
[http://www.health.ny.gov/forms/order\\_forms/asthma.pdf](http://www.health.ny.gov/forms/order_forms/asthma.pdf)








Name:

Organization:

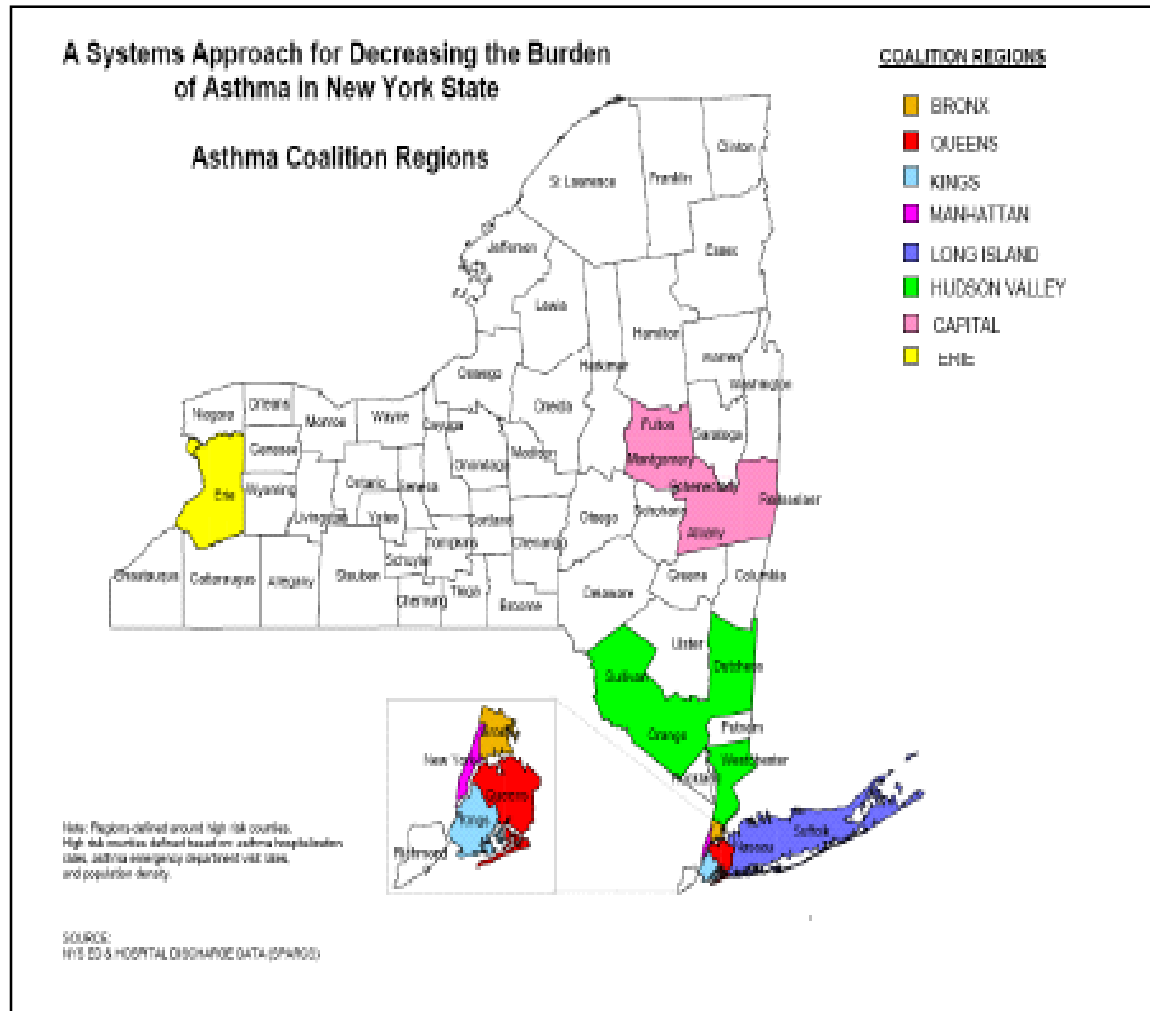
Address (No P.O. Boxes):

City:  State:  Zip Code:

Telephone Number:  Date of Request:

TITLE/DESCRIPTION	QUANTITY
 <p><b>Clinical Guideline for the Diagnosis, Evaluation and Management of Adults and Children with Asthma – 2008</b>                      The New York State consensus asthma guideline decision support tool is intended to assist clinician in applying concepts of the NAEPP Expert Panel Report-3 into practice.  <input type="checkbox"/> Spiral Pocket Guide (pub 4750)</p>	15 25 100
 <p><b>Asthma in the Primary Care Practice DVD</b>                      Clinical Application of the NAEPP Expert Panel Report-3, 2007 Guidelines for the Diagnosis and Management of Asthma. This is a companion piece to the above guideline decision support tool and is acceptable for up to 1.50 prescribed credits by the American Academy of Family Physicians.  <input type="checkbox"/> Case Based DVD (pub PP50)</p>	15 25 100
 <p><b>Asthma Action Plan</b>                      The purpose of this Asthma Action Plan is to help families become proactive and anticipatory with respect to asthma exacerbations and their control. The Asthma Action Plan should be used as an education and communication tool between the provider and the patient and his or her family. The patient/family should be able to demonstrate an understanding of the plan and the appropriate use of medicines.  <input type="checkbox"/> English (pub 4850)  <input type="checkbox"/> Spanish (pub 4851)</p>	15 25 100 15 25 100
 <p><b>Asthma and Influenza Brochure for People with Asthma</b>                      This brochure answers these questions: What is asthma; What is flu; Is the flu shot safe; Do I need to get a flu shot every year; Should my family get a flu shot too; and Where do I get a flu shot?  <b>Have asthma? You need a Flu Shot Brochure</b>  <input type="checkbox"/> English (pub 2410)  <input type="checkbox"/> Spanish (pub 2414)  <input type="checkbox"/> Russian (pub 2415)  <input type="checkbox"/> Chinese (pub 2416)  <input type="checkbox"/> Haitian/Creole (pub 2417)</p>	15 25 100 15 25 100 15 25 100 15 25 100 15 25 100
 <p><b>Fast Facts for Health Care Providers – Asthma and Influenza</b>                      English (pub 2429)  <a href="http://www.health.ny.gov/diseases/asthma/influenza/docs/provider_fact_sheet.pdf">http://www.health.ny.gov/diseases/asthma/influenza/docs/provider_fact_sheet.pdf</a></p>	only available for download
 <p><b>Asthma in Schools</b>                      These handy reference tools for coaches and school staff describe what steps are necessary to take to manage asthma in the classroom and on the athletic fields.  <input type="checkbox"/> Asthma Emergency Sticker for Coaches – English (pub 4946)  <input type="checkbox"/> Asthma Emergency Poster for Schools – English (pub 4947)</p>	15 25 100 15 25 100
 <p><b>Is Your Asthma Work-Related?</b>                      This brochure is intended for adults diagnosed with asthma and provides information on who can develop work-related asthma, how to tell if you have work-related asthma, and what can be done to control asthma at work.  <input type="checkbox"/> Is Your Asthma Work-Related? English (pub 2775)</p>	15 25 100

# OTHER RESOURCES



# AMERICAN LUNG ASSOCIATION RESOURCES

**FREE**

- Questions about Lung Health?: 1-800-LUNGUSA
- Lungtropolis: video game for kids ages 5-10
- Asthma Basics: 50-minute online program
- Freedom from Smoking online
- Asthma Educator Institute (AEI)
- Open Airways For Schools
- Kickin' Asthma



**OPEN AIRWAYS**  
FOR SCHOOLS 

**QUESTIONS?**