



Asthma Tool Kit

Fight Asthma Milwaukee Allies works together with children and families, connecting them to caring people, reducing hospital stays, and supporting healthy lives.

Mission: Fight Asthma Milwaukee Allies coalition envisions our community of children with asthma and their families having excellent quality of life and the lowest hospitalization rate of any large city in the Midwest. We will achieve these outcomes by:

- Strengthening partnerships
- Communicating goals effectively
- Linking children with asthma, their families, other caretakers, and health care providers to needed resources and services.

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FAM Allies Asthma Tool Kit

This tool kit was designed to supply the rationale for key asthma interventions and practical tips for clinicians working with children to help them better manage their asthma. It is based on practical experiences of children with asthma, parents, providers, and the National Heart Lung and Blood Institute (NHLBI) & American Academy of Allergy, Asthma and Immunology (AAAAI) asthma guidelines. Each topic includes a brief note describing importance and methods for its use with patients followed by sample tools and patient education materials.

The tool kit includes:

1. Clinical education information to be used by physicians, nurses and other clinical staff. [BLUE PAGES]
2. Reproducible patient education materials (A complete set is included in the back cover pocket and a sample is found within each section). [WHITE PAGES]
3. Office support tools such as asthma questionnaires, and flow sheets for visits and teaching asthma skills. [YELLOW PAGES]

Complete patient education packet is located in the back cover pocket including Spanish versions.

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Summary
&
General Information

Asthma General Information

Goals of Asthma Therapy

- a. Prevent chronic and troublesome symptoms such as coughing, wheezing, or breathlessness in the night, early morning, or after exertion.
- b. Maintain normal activity levels (including exercise and other physical activity).
- c. Prevent recurrent exacerbations of asthma and minimize need for emergency visits or hospital admissions.
- d. Provide optimal pharmacotherapy with minimal or no adverse effects.
- e. Maintain (near) normal pulmonary function.
- f. Meet patients' & family's expectations of, and satisfaction with, asthma care.

Key Points of Asthma Care

1. Identify asthma **triggers** (avoidable and unavoidable).
2. Recognize when asthma is **in control and out of control**.
3. Classify **level of severity** at every visit.
4. Daily use of **anti-inflammatory medications** in persons with persistent/chronic asthma.
5. Use **spacer device** for all age ranges for better medication absorption.
6. Promote **early recognition** of asthma symptoms by patient.
7. Use **daily symptom-based monitoring** in all patients to assess asthma control and peak flow meters when possible. (Use a diary or notes to track control over time).
8. Routine **follow up every 1 to 6 months** based on severity to evaluate written action/treatment plan.
9. Provide or review patient **written action plan** at each visit. Give the patient a copy.
10. See patients promptly after Emergency Department visits.
11. Early use of **oral steroids for acute exacerbations**.
12. Refer to a **specialist** for patients with difficult-to-control asthma and patients needing frequent oral steroid bursts.
13. Reinforce **avoidance of second hand tobacco smoke** as key to managing asthma.
14. Help patients identify patterns & triggers to increase **patient empowerment and self-management skills**. Predictable asthma is the easiest to treat. Family ability to predict asthma symptoms and react proactively reduces unnecessary stress.
15. **Nocturnal asthma symptoms** (including cough) indicate uncontrolled asthma.
16. Consider referral to **local asthma education programs** for development of patient self-management skills.
17. Provide **influenza vaccine** annually.

Asthma Patient Rights and Responsibilities

Rights	Responsibilities
<ol style="list-style-type: none"> 1. Have your asthma controlled: <ul style="list-style-type: none"> • No chronic or troublesome symptoms such as <u>coughing</u> or <u>breathlessness</u> in the night, early morning, or after exercise. • Do normal activities (including exercise and other physical activity). • Few asthma flare-ups and no need for hospital visits. • Prescribed the best medicine at the lowest dose with no side effects. • Keep near “normal” lung function. • Be satisfied with your asthma care. 2. Learn about how to manage your asthma to keep it under control. 	<ol style="list-style-type: none"> 1. Take your medications and avoid triggers. 2. Follow your action plan. 3. Stay on medicine until told by your doctor. 4. Do not let your medicines run out. 5. Bring medicines to the doctor’s office and hospital visits. 6. Attend regularly scheduled asthma follow-up visits. 7. Call your doctor when having ongoing asthma symptoms or when your asthma is not in control. 8. See your doctor within 2 days of any emergency room visit or hospitalization, EVEN IF YOU FEEL BETTER.

Your Doctor’s Responsibilities

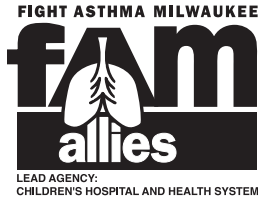
1. Classify the severity of your asthma at each asthma visit (mild, moderate, severe).
2. Review your medications and action plan with you at each asthma visit.
3. Show you how to use an inhaler.
4. Help you understand how to control things that make your asthma worse (triggers).
5. Take a peak flow reading
6. Ask you about recent symptoms
7. Review what to do if you have asthma at school or work.
8. Review what to do if you are having asthma symptoms after the office is closed.

Checklist for Visits to the Doctor:

1. Always bring to the doctor visit:
 - ALL of your medications, including home remedies or non-prescription medicine.
 - Peak flow meter
 - Asthma diary
 - Spacer
2. Tell your doctor right away if, because of asthma, you have:
 - Missed school or work
 - Had symptoms, including waking at night due to coughing
 - Gone to the emergency room
 - Been hospitalized
3. Other Questions:
 - Can I get two prescriptions for inhalers and spacers, one for school/childcare?
 - Does your child need doctor’s permission to carry an inhaler at school/childcare?
 - Do you need a revised asthma action plan? Copies?



FAM Allies works together with children and families connecting them to caring people, reducing hospital stays, and supporting healthy lives.
 Questions? Call (414) 390-2179



Asthma, Asthma Read all about it!

Volume 1

What is Asthma?

Inside this issue:

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Asthma Diary /
Asthma Action Plans. . . 3

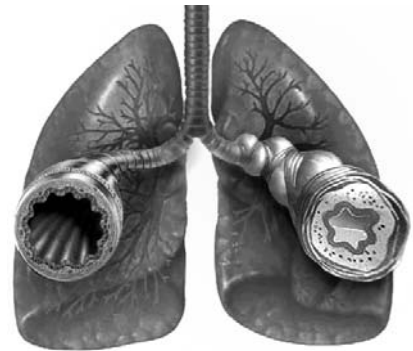
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Asthma is a chronic lung disease that can be life threatening if not treated and controlled well. The basic cause of asthma is unknown, but some things (triggers) make asthma worse.

With your doctor's help, you can control your asthma and become symptom free most of the time. Your asthma does NOT go away when your symptoms go away.

During an asthma attack, the linings of the airway become swollen. This causes repeat flare-ups. A thick mucus is made and the muscles around the airway squeeze, making the airway narrower (obstructed).



You need to keep taking care of your asthma!

Goals for Asthma Management

- No asthma symptoms during day or night, including cough. Sleep through the night
- Best possible lung function
- No missed school or work
- No hospital or ER visits for asthma
- Few side effects from medicines
- Satisfied with asthma care

Symptoms of asthma

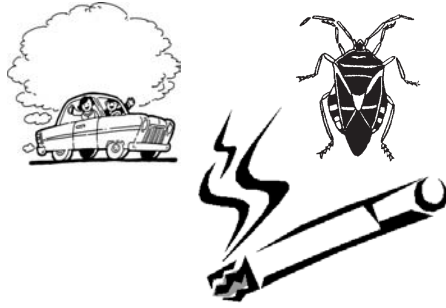
"Not everyone's symptoms are the same"

- Coughing - often occurs during the night or after exercise
- Wheezing - not all people with asthma wheeze
- Shortness of Breath
- Tightness in the chest
- Unable to do usual physical activities (exercise, sports)
- Waking at night (with asthma symptoms)

Treat all symptoms early to prevent an asthma attack!

Troubles & Triggers

People with asthma have very sensitive airways. Certain things, "triggers", cause asthma attacks. People with asthma have



very strong reactions to these triggers. Different people have different triggers.

Possible triggers include:

- Cigarette or cigar smoke
- Animals
- Cockroaches / Pests
- Dust mites
- Air Pollution
- Strong Smells / perfumes
- Colds / Flu & upper airway infections
- Molds / Pollen
- Changes in weather or temperature
- Exercise

Know your triggers
Different people have different triggers.
What are your triggers?

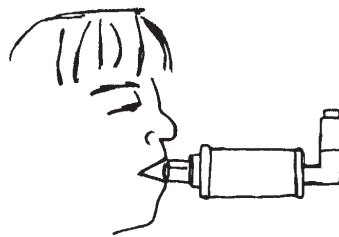
Avoid your triggers!

- Stay away from the triggers you can avoid.
- Have an asthma management plan for the triggers you can't avoid.

Asthma Medicines

Long-Term Control Medicine:

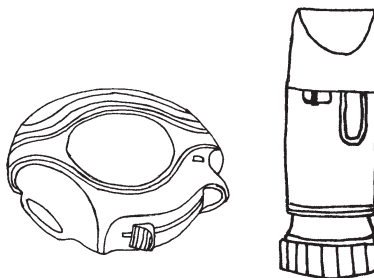
Works slowly over many days to stop airway swelling and mucus production. In order for the medicine to work, you must take it everyday, even when you feel good.



If you are using your quick relief medicine 2 or more times a week during the day, or if you are waking up 2 or more times a month during the night:

Quick Relief Medicine:

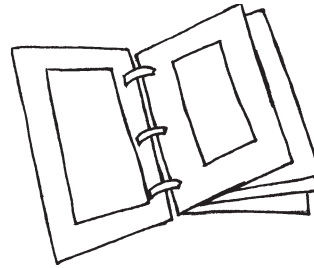
Helps stop an attack that is already started. Works fast to relax the muscles around your airways, making it easier to breathe.



Your asthma is not in control!
Contact your Doctor

What is an asthma diary?

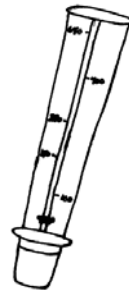
An Asthma Diary is a record that helps you track your own asthma symptoms, how you are using medicines, peak flow numbers, and what triggers you have come in contact with. This diary can be used by you and your doctor to manage your asthma over time.



Work with your doctor to come up with an asthma action plan for you!

Be sure to share your plan with school, sports, coaches, and family

Peak Flow Meter - Your doctor and nurse can teach you how to use a peak flow meter. This will help you check how well your lungs are working. It can warn you that your asthma is starting to flare-up, before you even have symptoms.



Asthma Care Plan

An asthma care plan is a written plan to help manage asthma, developed by you and your doctor, that lists your medicines, how much to take, and when to take them.

Zone	Action
Green	
Yellow	
Red	

Share with school/ childcare so they can handle an asthma flare-up.

Asthma that is not controlled can permanently damage your lungs. Stop lung damage by controlling your asthma!

How to take care of your asthma

- Work with your doctor and see him/her at least every 6 months
- Take your medicines exactly as prescribed
- Keep taking long-term control medicines even when you feel good
- Watch for signs that your asthma is getting worse and act quickly
- Treat symptoms early, missing signs of asthma can be life threatening
- Identify and avoid your asthma triggers
- Follow your asthma action plan



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FAM Allies works
together with children and
families, connecting them
to caring people, reducing
hospital stays, and
supporting healthy lives.

Local Resources:

- Your family doctor
- Fight Asthma Milwaukee Allies
(414) 390-2179
- American Lung Association of
Wisconsin
1-800-LUNG-USA

National Resources:

- Allergy and Asthma Network -
Mothers of Asthmatics, Inc.
<http://www.aanma.org>
1-800-878-4403
- National Jewish Medical and
Research Center
<http://www.njc.org>
1-800-222-LUNG
- American Lung Association
<http://www.lungusa.org>
1-800-586-4872

Kid-to-Kid on Asthma

By Lauren (age 11) and Gabrielle (age 8)



Asthma is kind of like allergies on the inside. When you get near your triggers (dust mites, smoke, pollen, cold) your lungs react. Then the tubes in your lungs get smaller (tighter) and mucus (liquid snot) gets in them and makes it hard to breathe. It makes it so you can't get breath out. If you can't get air out, then you can't get more air in, cuz

there is no room in your lungs.

The medicine in your quick relief inhaler (I use albuterol) is like an allergy medicine. It makes the tubes in your lungs open up so you can get air out and breathe easy again.



The controller medicine helps prevent the tightening and the mucus (snot) from forming. It makes you have fewer attacks and not as bad.

There are different "badness" of asthma attacks. If you stop the attack when it just starts by using your quick relief inhaler, it goes away real fast. If the attack gets bad, you may need a nebulizer (breathing mist) treatment or need to see your doctor. If it is really bad, you need to go to the hospital emergency room.

The best way to control your asthma is to take your controller medicine everyday (even if you feel good).

Try to stay away from triggers:

- Stay away from smoke
- Use special pillow covers to keep dust mites away
- Take your quick relief inhaler before sports or gym
- Figure out what gives you an attack and try to stay away from it or make it go away.



Take your quick relief inhaler with you so you have it with you when you need it. If you start to have asthma symptoms like cough in the morning, tightness in the chest, or itchy throat, take your quick relief inhaler right away.

Do not wait for it to get bad!

Just because you have asthma doesn't mean you can't do all the things other kids do. You can play sports, do karate, gymnastics, swim, run, play soccer or basketball, and have fun. You can even win an Olympic medal!



You just need to take a few extra steps to keep your asthma under control.

Just because you have asthma doesn't mean you can't have fun!

**Guidelines for
Diagnosis & Treatment
of Asthma**

Asthma Guidelines

Why is it important?

- The NIH asthma guidelines reflect the most current research and expert consensus on how to best manage asthma.
- Effective asthma treatment improves quality of life of the child and family, improves or preserves lung function, and decreases emergency visits and hospitalizations.

How do I use the guideline:

1. **Assess asthma symptom control and classify level of severity** at every visit.
2. **Review current treatment plan:** asthma medications & appropriate usage, and trigger management strategies. How effective has it been? Is it being consistently followed? Assess controller medication usage.
3. **Step up, step down, or maintain the medication choice and dose** based on ongoing severity assessment. Use the guideline to suggest various interventions.
4. **Discuss trigger management strategies.** See research based interventions in trigger management section.
5. **Reinforce goal of controlled asthma.** Offer asthma education as needed.

Asthma is in control when:

1. **No chronic or troublesome symptoms** such coughing, wheezing or breathlessness in the night, early morning, or after exertion.
 - Cough variant asthma with no wheezing is very common in children
 - Night time symptoms are a sign that asthma is not in control
2. **Normal activity levels** (including exercise and other physical activity) can be maintained.
3. **Exacerbations of asthma are minimized** and there is no need for emergency visits or Hospital admissions.
4. Near “normal” pulmonary function is maintained.

Who can I call with questions:

- See the asthma specialist resource list for physicians who are willing to discuss asthma care and the guideline recommendations in person or over the phone. General discussions are available. Patient consult is not required.
- Contact FAM Allies at (414) 390-2179 about physician & clinician education opportunities.

CCHQ Asthma Guidelines

Goals of Asthma Treatment:

- 1) Prevent chronic and troublesome symptoms
- 2) Maintain (near) normal pulmonary function
- 3) Maintain normal activity levels including exercise and other physical activity
- 4) Prevent recurrent exacerbations and minimize need for Emergency Department visits or hospitalizations
- 5) Provide optimal pharmacotherapy with minimal or no adverse effects
- 6) Meet patients' and families' expectations of and satisfaction with asthma care

	Classification of Severity of Asthma	Education
Severe Persistent	<p>Before Treatment Continuous symptoms Frequent exacerbations Limited physical activity Frequent nighttime symptoms</p>	Patient/family education Trigger avoidance/environmental control Written treatment plan Written action plan for exacerbations Peak flow meter Consultation with specialist Consider case manager
Moderate Persistent	<p>Before Treatment Symptoms daily Exacerbations affect activity and sleep Nighttime symptoms > 1 time per week Daily use of inhaled, short-acting β_2 agonist Exacerbations ≥ 2 times per week; may last for days PEF or FEV₁ > 60% to $\leq 80\%$ predicted and PEF variability > 30%</p>	Patient/family education Trigger avoidance/environmental control Written treatment plan Written action plan for exacerbations Peak flow meter Consider consultation with specialist
Mild Persistent	<p>Before Treatment Under the age 5: Symptoms > 2 times per week but < 1 time per day Age 5 & over: Symptoms > 2 times per week but < 1 time per day Exacerbations may affect activity and sleep Nighttime symptoms > 2 times per month PEF or FEV₁ $\geq 80\%$ predicted and PEF variability 20-30%</p>	Patient/family education Trigger avoidance/environmental control Written treatment plan Written action plan for exacerbations Consider peak flow meter
Mild Intermittent	<p>Before Treatment Intermittent symptoms ≤ 2 times per week Brief exacerbations (few hours-few days) Nighttime symptoms ≤ 2 times per month Asymptomatic and normal lung function between exacerbations PEF or FEV₁ $\geq 80\%$ predicted and PEF variability 20-30%</p>	Patient/family education Trigger avoidance/environmental control Written treatment plan Written action plan for exacerbations Consider peak flow meter

CCHQ Asthma Guidelines

Red Flags

1. Daily use of inhaled short acting B2 agonist medication implies the patient's asthma is out of control and the addition or increase of daily anti inflammatory medication is indicated.
2. Inhaled corticosteroids are cornerstone therapy for all persistent asthma.
3. Cromolyn or nedocromil or leukotriene modifiers can be used as monotherapy in mild persistent asthma. They are not to be used as monotherapy in moderate and severe persistent asthma.
4. Poor compliance with medical therapy is the most common cause of treatment failure by patients.
5. It is strongly recommended to obtain a consultation with a specialist for patients on high dose inhaled corticosteroids or more than two short courses of oral corticosteroids in a year.
6. It is strongly recommended that a patient with asthma have follow up office visits to monitor and adjust the asthma medical therapy for the best outcomes.
7. Various leukotriene modifiers have different age restrictions.
8. If a patient is well controlled on theophylline, that medicine can be continued but theophylline blood levels should be done at least annually.

Asthma not controlled

1. Symptoms more often than 2x/week.
2. Asthma awakening the patient at night.
3. Symptoms when exercising.
4. Miss days of work, school, or daycare because of asthma.
5. Limited daily activities because of asthma symptoms.
6. Use of short acting Beta2 agonist more than 2x/week for symptom control
7. Recent (past 4 weeks) or recurrent need for urgent medical care i.e. emergency office visit, urgent care or emergency room visit.
8. Hospitalization for asthma in the past 4 weeks.
9. Peak flow readings and/or symptoms in the yellow or red zone.

Indications for Consultation with or Referral to an Asthma Specialist

1. All patients with severe persistent asthma
2. Life-threatening asthma exacerbations
3. Poor response to treatment or difficulty achieving or maintaining control of asthma
4. Atypical symptoms and complicating conditions
5. 2 or 3 oral steroid bursts in 12 months or persistent need for high dose inhaled steroids
6. Any child under 3 years with moderate asthma
7. Allergy assessment or pulmonary function testing
8. Patient requests a specialist consultation
9. When diagnosis of asthma is in doubt

CCHQ Asthma Medication Guidelines

Infants and Children – LESS than 5 Years of Age

	Long-Term Control	Quick Relief
step 4 Severe Persistent	<ul style="list-style-type: none"> Daily anti inflammatory either: <ul style="list-style-type: none"> Inhaled corticosteroid (high dose) via MDI with spacer or nebulizer or if not controlled with the above add a leukotriene modifier or if not controlled with high dose corticosteroid add cromolyn or nedocromil Patient may need maintenance oral corticosteroids as a control medication in addition to the above treatment options. Corticosteroid tablets or syrup (2mg/kg/day, generally do not exceed 60mg/day) Influenza vaccine annually Allergy testing and immunotherapy, if indicated 	<ul style="list-style-type: none"> Inhaled short acting beta-2 agonist PRN for symptoms but less than or equal to 2x/week Inhaled short acting B2 agonist before physical activity or exposure to allergen. If not well controlled, can add either cromolyn or nedocromil
step 3 Moderate Persistent	<ul style="list-style-type: none"> Daily anti-inflammatory either: <ul style="list-style-type: none"> Inhaled corticosteroid (low dose) via MDI with spacer or nebulizer or cromolyn or nedocromil via MDI with spacer or nebulizer or leukotriene modifier Influenza vaccine annually Allergy evaluation and immunotherapy, if indicated 	<ul style="list-style-type: none"> Inhaled short acting beta-2 agonist PRN for symptoms but less than or equal to 2x/week Short acting beta-2 agonist before physical activity or exposure to allergen. If not well controlled, can add either cromolyn or nedocromil
step 2 Mild Persistent	<ul style="list-style-type: none"> Daily anti-inflammatory either: <ul style="list-style-type: none"> Inhaled corticosteroid (low dose) via MDI with spacer or nebulizer or cromolyn or nedocromil via MDI with spacer or nebulizer or leukotriene modifier Influenza vaccine annually 	<ul style="list-style-type: none"> Inhaled short acting beta-2 agonist PRN for symptoms but less than or equal to 2x/week Short acting beta-2 agonist before physical activity or exposure to allergen. If not well controlled, can add either cromolyn or nedocromil
step 1 Mild Intermittent		<ul style="list-style-type: none"> Inhaled short acting beta-2 agonist for symptoms but less than equal to 2x/week Inhaled short acting beta-2 agonist before physical activity or exposure to allergen. If not well controlled, can add either cromolyn or nedocromil
Step Down	Step Up	
Review treatment every 1 to 6 months; a gradual stepwise reduction in treatment may be possible.	If control is not maintained, consider stepping up. First, review patient medication technique, adherence, and environmental control (avoidance of allergens and/or other factors that contribute to asthma severity).	

CCHQ Asthma Medication Guidelines

Adults and Children – 5 years of Age and Older

	Long-Term Control	Quick Relief
step 4 Severe Persistent	<ul style="list-style-type: none"> Daily anti inflammatory either: <ul style="list-style-type: none"> Inhaled corticosteroid (high dose) and long acting inhaled beta-2 agonist or inhaled corticosteroid (high dose) and leukotriene modifier If not controlled with any of the above anti inflammatory options consider inhaled corticosteroid (high dose) and inhaled long acting beta-2 agonist and leukotriene modifier Patient may need maintenance oral corticosteroids as a maintenance medication in addition to the above treatment options Influenza vaccine annually Allergy testing and immunotherapy, if indicated 	<ul style="list-style-type: none"> Short acting beta-2 agonist PRN for symptoms but less than or equal to 2x/week Short or long acting beta-2 agonist before physical activity or exposure to allergen. If not well controlled, can add either cromolyn or nedocromil
step 3 Moderate Persistent	<ul style="list-style-type: none"> Daily anti inflammatory either: <ul style="list-style-type: none"> Inhaled corticosteroids (medium dose) or inhaled corticosteroids (low dose) and inhaled long acting beta-2 agonist or inhaled corticosteroids (low dose) and leukotriene modifier If not controlled with any of the above anti inflammatory options, consider inhaled corticosteroid (medium dose) and either an inhaled long lasting beta-2 agonist or leukotriene modifier Influenza vaccine annually Allergy testing and immunotherapy, if indicated 	<ul style="list-style-type: none"> Short acting beta-2 agonist PRN for symptoms but less than or equal to 2x/week Short or long acting beta-2 agonist before physical activity or exposure to allergen. If not well controlled, can add either cromolyn or nedocromil
step 2 Mild Persistent	<ul style="list-style-type: none"> Daily anti inflammatory either: <ul style="list-style-type: none"> Low dose inhaled corticosteroids or cromolyn or nedocromil or leukotriene modifier Influenza vaccine annually 	<ul style="list-style-type: none"> Short acting beta-2 agonist PRN for symptoms but less than or equal to 2x/week Short or long acting beta-2 agonist before physical activity or exposure to allergen. If not well controlled, can add either cromolyn or nedocromil.
step 1 Mild Intermittent		<ul style="list-style-type: none"> Short acting beta-2 agonist PRN for symptoms but less than or equal to 2x/week Short or long acting beta2 agonist before physical activity or exposure to allergen. If not well controlled, can add either cromolyn or nedocromil
Step Down	Step Up	
Review treatment every 1 to 6 months; a gradual stepwise reduction in treatment may be possible.	If control is not maintained, consider stepping up. First, review patient medication technique, adherence, and environmental control (avoidance of allergens and/or other factors that contribute to asthma severity).	

QUICK REFERENCE

NAEPP Expert Panel Report Guidelines for the Diagnosis and Management of Asthma—Update on Selected Topics 2002*

The National Asthma Education and Prevention Program (NAEPP) keeps clinical practice guidelines up to date by identifying selected topics on asthma that warrant intensive review based on the level of research activity reflected in the published literature or the level of concern in clinical practice. The NAEPP Expert Panel identified key questions about asthma management and used a systematic review of the evidence, conducted by the Agency for Healthcare Research and Quality Evidence Practice Center, to prepare answers and update recommendations for clinical practice.

The NAEPP *Expert Panel Report: Guidelines for the Diagnosis and Management of Asthma—Update on Selected Topics 2002* (EPR—Update 2002) presents up-to-date recommendations on:

Medications—long-term management of asthma in children with mild or moderate persistent asthma, combination therapy in moderate persistent asthma, and use of antibiotics to treat acute exacerbations of asthma

Monitoring—written action plans compared to medical management alone, and peak flow-based compared to symptom-based written action plans

Prevention—effects of early treatment on the progression of asthma

Medications

Long-Term Management of Asthma in Children

Question: Does chronic use of inhaled corticosteroids improve long-term outcomes for children with mild or moderate persistent asthma, compared to other asthma medications?

Answer: Strong evidence from clinical trials has established that inhaled corticosteroids improve control of asthma for children with mild or moderate persistent asthma compared to as-needed beta₂-agonists, as measured by prebronchodilator FEV₁, reduced airway hyperresponsiveness, improvements in symptom scores and symptom frequency, fewer courses of oral corticosteroids, and fewer urgent care visits or hospitalizations. Studies comparing inhaled corticosteroids to cromolyn, nedocromil, theophylline, or leukotriene receptor antagonists are limited, but available evidence shows that none of these long-term control medications appear to be as effective as inhaled corticosteroids in improving asthma outcomes. Studies comparing medications in children younger than 5 years of age are not available; recommendations are based on expert opinion and extrapolation from studies in older children. The NAEPP EPR-2 recommendations for treating children with mild or moderate persistent asthma have been revised. (See charts for Stepwise Approach for Managing Asthma.)

*Updates the NAEPP *Expert Panel Report 2* (NIH Publication No. 97-4051).



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
National Institutes of Health
National Heart, Lung, and Blood Institute

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Based on observational studies, it is the opinion of the Expert Panel that the initiation of long-term control therapy should be considered in infants and young children who have had more than three episodes of wheezing in the past year that lasted more than 1 day and affected sleep and who have risk factors for the development of asthma (parental history of asthma or physician-diagnosed atopic dermatitis or two of the following: physician-diagnosed allergic rhinitis, wheezing apart from colds, peripheral blood eosinophilia). This is in addition to previously recommended indications for starting long-term control therapy—i.e., in infants and young children requiring symptomatic treatment more than two times per week or experiencing severe exacerbations less than 6 weeks apart.

Question: What are the long-term adverse effects of chronic inhaled corticosteroid use in children on the following outcomes: vertical growth, bone mineral density, ocular toxicity, and suppression of the hypothalamic-pituitary-adrenal (HPA) axis?

Answer: Strong evidence from clinical trials following children for up to 6 years shows that the use of inhaled corticosteroids at recommended doses does not have frequent, clinically significant, or irreversible effects on any of the outcomes reviewed. The NAEPP EPR-2 statements have been updated but not changed: Inhaled corticosteroids improve health outcomes for children with mild or moderate persistent asthma, and the potential but small risk of delayed growth is well balanced by their effectiveness.

Cumulative data in children suggest that low-to-medium doses of inhaled corticosteroids may have the potential of decreasing growth velocity (resulting in a small difference in height averaging 1 cm in the first year of treatment), but this effect on growth velocity is not sustained in subsequent years of treatment, is not progressive, and may be reversible. Cohort studies following children for more than 10 years suggest that final height is attained. Physicians should monitor the growth of children and adolescents taking corticosteroids by any route of administration and, if growth appears slowed, weigh the benefits of asthma control against the possibility of growth suppression or delay.

Studies including 6 years of observation indicate that low-to-medium doses of inhaled corticosteroids have no adverse effects on bone mineral density in children and no significant effects on the incidence of subcapsular cataracts or glaucoma. Studies show that, on average, persons may have only clinically insignificant effects, if any, of inhaled corticosteroids on HPA axis function, although there may be rare individuals who are more susceptible.

Combination Therapy

Question: In patients with moderate persistent asthma who are receiving inhaled corticosteroids, does addition of another long-term control agent improve outcomes?

Answer: Strong evidence from clinical trials consistently indicates that use of long-acting inhaled beta₂-agonists added to low-to-medium doses of inhaled corticosteroids leads to improvements in lung function and symptoms and reduced need for quick relief, short-acting beta₂-agonists. Adding a leukotriene modifier or theophylline to inhaled corticosteroids or doubling the dose of inhaled corticosteroids also improves outcomes, but the evidence is not as substantial. The NAEPP EPR-2 recommendations for moderate persistent asthma have been revised: The preferred treatment for adults and children over 5 years of age is the addition of long-acting inhaled beta₂-agonists to low-to-medium doses of inhaled corticosteroids. Adjunctive therapy combinations have not been studied in children younger than 5 years of age. For this age group, it is the opinion of the Expert Panel that there are two preferred options for treating moderate asthma: either the addition of long-acting inhaled beta₂-agonists to a low dose of inhaled corticosteroids or medium-dose inhaled corticosteroids as monotherapy.

Use of Antibiotics To Treat Acute Asthma Exacerbation

Question: Does adding antibiotics to standard care improve the outcomes of treatment for acute exacerbation of asthma?

Answer: Evidence from clinical trials suggests no benefit from antibiotic therapy for asthma exacerbations, whether administered routinely or when suspicion of bacterial infection is low. No studies have addressed the question of whether the addition of antibiotics to standard care improves the outcomes of treatment for asthma exacerbations when signs and symptoms suggest the possibility—but do not clearly indicate the presence—of bacterial infection. The NAEPP EPR-2 recommendation has not been changed: Antibiotics are not recommended for the treatment of acute asthma exacerbations except as needed for comorbid conditions—e.g., for those patients with fever and purulent sputum, evidence of pneumonia, or suspected bacterial sinusitis.

Monitoring

Written Action Plans Compared to Medical Management Alone

Question: Compared to medical management alone, does the use of a written asthma action plan improve outcomes?

Answer: Data are insufficient to support or refute the benefits of using written asthma action plans compared to medical management alone. Seven studies compared medical management with written action plans to medical management without action plans. Beyond including instructions on the action plan to the intervention groups, four of these studies did not include asthma education for either the intervention or control groups; three of the studies included similar but limited asthma education for both intervention and control groups. Only one study included children. Significant limitations in study designs and methods in these studies preclude conclusions. For example, the studies showing no benefits of written action plans did not have sufficient power for comparisons between treatment and control groups, and the two studies reporting significant improvements with action plans had potential biases in patient selection, withdrawals, data collection, or analysis.

However, a Cochrane review of 25 studies comparing asthma self-management education interventions for adults to medical care without such education also contrasted those studies with self-management interventions that included written action plans to those that did not. The self-management interventions with written action plans had the greatest benefits, including reduced emergency department visits and hospitalizations and improved lung function.

The NAEPP EPR-2 recommendations have not been changed: It is the opinion of the Expert Panel that use of written action plans as part of an overall effort to educate patients in self-management is recommended, especially for patients with moderate or severe persistent asthma and patients with a history of severe exacerbations.

Peak Flow-Based Compared to Symptom-Based Written Action Plans

Question: Compared to a written action plan based on symptoms, does use of a written action plan based on peak flow monitoring improve outcomes?

Answer: Evidence neither supports nor refutes the benefits of written action plans based on peak flow monitoring compared to symptom-based plans in improving health care utilization, symptoms, or lung function. Just four studies, one including children, were available, and these studies had limitations (e.g., inadequate sample sizes and power to detect differences or potential bias in patient selection). The evidence does not clearly show that a peak flow-based action plan is better, but equivalent benefits have been demonstrated. Patient preferences and circumstances (e.g., inability to recognize or report signs and symptoms of worsening asthma) may warrant choosing peak flow monitoring. The NAEPP EPR-2 recommendations have not been changed. It is the opinion of the Expert Panel that peak flow monitoring for patients with moderate or severe persistent asthma should be considered because it may enhance clinician-patient communication and may increase patient and caregiver awareness of the disease status and control.

Prevention

Effects of Early Treatment on Progression of Asthma



Question: For patients with mild or moderate persistent asthma, does early intervention with long-term control therapy (i.e., inhaled corticosteroids) prevent progression of asthma as indicated by changes in lung function or severity of symptoms?

Answer: Evidence is insufficient to permit conclusions on the benefits of early treatment of asthma in preventing the progression of disease. The NAEPP EPR-2 statements on disease progression have been revised. The assumption that children ages 5 to 12 with mild or moderate persistent asthma have a progressive decline in lung function has not been supported by a large, randomized, controlled clinical trial. The trial found that although inhaled corticosteroids provided superior asthma control during treatment, symptoms and airway hyperresponsiveness returned when treatment was discontinued. This suggests that, for this age group, treatment provides control but does not modify the underlying disease process. In contrast, prospective observational studies in other age groups suggest that a loss of lung function in children occurs in the first 3 to 5 years of life and can occur rapidly in adults with asthma. Adequate studies of whether treatment can prevent these declines in lung function have not yet been conducted.

Stepwise Approach for Managing Infants and Young Children (5 Years of Age and Younger) With Acute or Chronic Asthma

Classify Severity: Clinical Features Before Treatment or Adequate Control		Medications Required To Maintain Long-Term Control
<u>Symptoms/Day</u> <u>Symptoms/Night</u>		Daily Medications
Step 4 Severe Persistent	Continual Frequent	<ul style="list-style-type: none"> ■ Preferred treatment: <ul style="list-style-type: none"> – High-dose inhaled corticosteroids AND – Long-acting inhaled beta₂-agonists AND, if needed, – Corticosteroid tablets or syrup long term (2 mg/kg/day, generally do not exceed 60 mg per day). (Make repeat attempts to reduce systemic corticosteroids and maintain control with high-dose inhaled corticosteroids.)
Step 3 Moderate Persistent	Daily > 1 night/week	<ul style="list-style-type: none"> ■ Preferred treatments: <ul style="list-style-type: none"> – Low-dose inhaled corticosteroids and long-acting inhaled beta₂-agonists OR – Medium-dose inhaled corticosteroids. ■ Alternative treatment: <ul style="list-style-type: none"> – Low-dose inhaled corticosteroids and either leukotriene receptor antagonist or theophylline. <p>.....</p> <p>If needed (particularly in patients with recurring severe exacerbations):</p> <ul style="list-style-type: none"> ■ Preferred treatment: <ul style="list-style-type: none"> – Medium-dose inhaled corticosteroids and long-acting beta₂-agonists. ■ Alternative treatment: <ul style="list-style-type: none"> – Medium-dose inhaled corticosteroids and either leukotriene receptor antagonist or theophylline.
Step 2 Mild Persistent	> 2/week but < 1x/day > 2 nights/month	<ul style="list-style-type: none"> ■ Preferred treatment: <ul style="list-style-type: none"> – Low-dose inhaled corticosteroid (with nebulizer or MDI with holding chamber with or without face mask or DPI). ■ Alternative treatment (listed alphabetically): <ul style="list-style-type: none"> – Cromolyn (nebulizer is preferred or MDI with holding chamber) OR leukotriene receptor antagonist.
Step 1 Mild Intermittent	≤ 2 days/week ≤ 2 nights/month	<ul style="list-style-type: none"> ■ No daily medication needed.

Quick Relief All Patients	<ul style="list-style-type: none"> ■ Bronchodilator as needed for symptoms. Intensity of treatment will depend upon severity of exacerbation. <ul style="list-style-type: none"> – Preferred treatment: Short-acting inhaled beta₂-agonists by nebulizer or face mask and space/holding chamber – Alternative treatment: Oral beta₂-agonist ■ With viral respiratory infection <ul style="list-style-type: none"> – Bronchodilator q 4–6 hours up to 24 hours (longer with physician consult); in general, repeat no more than once every 6 weeks – Consider systemic corticosteroid if exacerbation is severe or patient has history of previous severe exacerbations ■ Use of short-acting beta₂-agonists >2 times a week in intermittent asthma (daily, or increasing use in persistent asthma) may indicate the need to initiate (increase) long-term control therapy.
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 Step down Review treatment every 1 to 6 months; a gradual stepwise reduction in treatment may be possible.
 Step up If control is not maintained, consider step up. First, review patient medication technique, adherence, and environmental control.

Goals of Therapy: Asthma Control	
<ul style="list-style-type: none"> ■ Minimal or no chronic symptoms day or night ■ Minimal or no exacerbations ■ No limitations on activities; no school/parent's work missed 	<ul style="list-style-type: none"> ■ Minimal use of short-acting inhaled beta₂-agonist (< 1x per day, < 1 canister/month) ■ Minimal or no adverse effects from medications

- Note**
- The stepwise approach is intended to assist, not replace, the clinical decisionmaking required to meet individual patient needs.
 - Classify severity: assign patient to most severe step in which any feature occurs.
 - There are very few studies on asthma therapy for infants.
 - Gain control as quickly as possible (a course of short systemic corticosteroids may be required); then step down to the least medication necessary to maintain control.
 - Provide parent education on asthma management and controlling environmental factors that make asthma worse (e.g., allergies and irritants).
 - Consultation with an asthma specialist is recommended for patients with moderate or severe persistent asthma. Consider consultation for patients with mild persistent asthma.

Stepwise Approach for Managing Asthma in Adults and Children Older Than 5 Years of Age: Treatment

Classify Severity: Clinical Features Before Treatment or Adequate Control			Medications Required To Maintain Long-Term Control
	Symptoms/Day Symptoms/Night	PEF or FEV ₁ PEF Variability	Daily Medications
Step 4 Severe Persistent	Continual Frequent	≤ 60% > 30%	<ul style="list-style-type: none"> ■ Preferred treatment: <ul style="list-style-type: none"> – High-dose inhaled corticosteroids AND – Long-acting inhaled beta₂-agonists AND, if needed, – Corticosteroid tablets or syrup long term (2 mg/kg/day, generally do not exceed 60 mg per day). (Make repeat attempts to reduce systemic corticosteroids and maintain control with high-dose inhaled corticosteroids.)
Step 3 Moderate Persistent	Daily > 1 night/week	> 60% – < 80% > 30%	<ul style="list-style-type: none"> ■ Preferred treatment: <ul style="list-style-type: none"> – Low-to-medium dose inhaled corticosteroids and long-acting inhaled beta₂-agonists. ■ Alternative treatment (listed alphabetically): <ul style="list-style-type: none"> – Increase inhaled corticosteroids within medium-dose range OR – Low-to-medium dose inhaled corticosteroids and either leukotriene modifier or theophylline. <p>.....</p> <p>If needed (particularly in patients with recurring severe exacerbations):</p> <ul style="list-style-type: none"> ■ Preferred treatment: <ul style="list-style-type: none"> – Increase inhaled corticosteroids within medium-dose range and add long-acting inhaled beta₂-agonists. ■ Alternative treatment: <ul style="list-style-type: none"> – Increase inhaled corticosteroids within medium-dose range and add either leukotriene modifier or theophylline.
Step 2 Mild Persistent	> 2/week but < 1x/day > 2 nights/month	≥ 80% 20–30%	<ul style="list-style-type: none"> ■ Preferred treatment: <ul style="list-style-type: none"> – Low-dose inhaled corticosteroids. ■ Alternative treatment (listed alphabetically): cromolyn, leukotriene modifier, nedocromil, OR sustained release theophylline to serum concentration of 5–15 mcg/mL.
Step 1 Mild Intermittent	≤ 2 days/week ≤ 2 nights/month	≥ 80% < 20%	<ul style="list-style-type: none"> ■ No daily medication needed. ■ Severe exacerbations may occur, separated by long periods of normal lung function and no symptoms. A course of systemic corticosteroids is recommended.

Quick Relief

All Patients

- Short-acting bronchodilator: 2–4 puffs short-acting inhaled beta₂-agonists as needed for symptoms.
- Intensity of treatment will depend on severity of exacerbation; up to 3 treatments at 20-minute intervals or a single nebulizer treatment as needed. Course of systemic corticosteroids may be needed.
- Use of short-acting beta₂-agonists >2 times a week in intermittent asthma (daily, or increasing use in persistent asthma) may indicate the need to initiate (increase) long-term control therapy.



Step down

Review treatment every 1 to 6 months; a gradual stepwise reduction in treatment may be possible.



Step up

If control is not maintained, consider step up. First, review patient medication technique, adherence, and environmental control.

Note

- The stepwise approach is meant to assist, not replace, the clinical decisionmaking required to meet individual patient needs.
- Classify severity: assign patient to most severe step in which any feature occurs (PEF is % of personal best; FEV₁ is % predicted).
- Gain control as quickly as possible (consider a short course of systemic corticosteroids); then step down to the least medication necessary to maintain control.
- Provide education on self-management and controlling environmental factors that make asthma worse (e.g., allergens and irritants).
- Refer to an asthma specialist if there are difficulties controlling asthma or if step 4 care is required. Referral may be considered if step 3 care is required.

Goals of Therapy: Asthma Control

- Minimal or no chronic symptoms day or night
- Minimal or no exacerbations
- No limitations on activities; no school/work missed
- Maintain (near) normal pulmonary function
- Minimal use of short-acting inhaled beta₂-agonist (< 1x per day, < 1 canister/month)
- Minimal or no adverse effects from medications

Usual Dosages for Long-Term-Control Medications

Medication	Dosage Form	Adult Dose	Child Dose*
Inhaled Corticosteroids (See <i>Estimated Comparative Daily Dosages for Inhaled Corticosteroids</i> .)			
Systemic Corticosteroids (Applies to all three corticosteroids.)			
Methylprednisolone	2, 4, 8, 16, 32 mg tablets	■ 7.5–60 mg daily in a single dose in a.m. or qod as needed for control	■ 0.25–2 mg/kg daily in single dose in a.m. or qod as needed for control
Prednisolone	5 mg tablets, 5 mg/5 cc, 15 mg/5 cc	■ Short-course “burst” to achieve control: 40–60 mg per day as single or 2 divided doses for 3–10 days	■ Short-course “burst”: 1–2 mg/kg/day, maximum 60 mg/day for 3–10 days
Prednisone	1, 2.5, 5, 10, 20, 50 mg tablets; 5 mg/cc, 5 mg/5 cc		
Long-Acting Inhaled Beta₂-Agonists (Should not be used for symptom relief or for exacerbations. Use with inhaled corticosteroids.)			
Salmeterol	MDI 21 mcg/puff DPI 50 mcg/blister	2 puffs q 12 hours 1 blister q 12 hours	1–2 puffs q 12 hours 1 blister q 12 hours
Formoterol	DPI 12 mcg/single-use capsule	1 capsule q 12 hours	1 capsule q 12 hours
Combined Medication			
Fluticasone/Salmeterol	DPI 100, 250, or 500 mcg/50 mcg	1 inhalation bid; dose depends on severity of asthma	1 inhalation bid; dose depends on severity of asthma
Cromolyn and Nedocromil			
Cromolyn	MDI 1 mg/puff Nebulizer 20 mg/ampule	2–4 puffs tid-qid 1 ampule tid-qid	1–2 puffs tid-qid 1 ampule tid-qid
Nedocromil	MDI 1.75 mg/puff	2–4 puffs bid-qid	1–2 puffs bid-qid
Leukotriene Modifiers			
Montelukast	4 or 5 mg chewable tablet 10 mg tablet	10 mg qhs	4 mg qhs (2–5 yrs) 5 mg qhs (6–14 yrs) 10 mg qhs (> 14 yrs)
Zafirlukast	10 or 20 mg tablet	40 mg daily (20 mg tablet bid)	20 mg daily (7–11 yrs) (10 mg tablet bid)
Zileuton	300 or 600 mg tablet	2,400 mg daily (give tablets qid)	
Methylxanthines (Serum monitoring is important [serum concentration of 5–15 mcg/mL at steady state]).			
Theophylline	Liquids, sustained-release tablets, and capsules	Starting dose 10 mg/kg/day up to 300 mg max; usual max 800 mg/day	Starting dose 10 mg/kg/day; usual max: ■ < 1 year of age: 0.2 (age in weeks) + 5 = mg/kg/day ■ ≥ 1 year of age: 16 mg/kg/day

Estimated Comparative Daily Dosages for Inhaled Corticosteroids

Drug	Low Daily Dose		Medium Daily Dose		High Daily Dose	
	Adult	Child*	Adult	Child*	Adult	Child*
Beclomethasone CFC 42 or 84 mcg/puff	168–504 mcg	84–336 mcg	504–840 mcg	336–672 mcg	> 840 mcg	> 672 mcg
Beclomethasone HFA 40 or 80 mcg/puff	80–240 mcg	80–160 mcg	240–480 mcg	160–320 mcg	> 480 mcg	> 320 mcg
Budesonide DPI 200 mcg/inhalation	200–600 mcg	200–400 mcg	600–1,200 mcg	400–800 mcg	> 1,200 mcg	> 800 mcg
Inhalation suspension for nebulization (child dose)		0.5 mg		1.0 mg		2.0 mg
Flunisolide 250 mcg/puff	500–1,000 mcg	500–750 mcg	1,000–2,000 mcg	1,000–1,250 mcg	> 2,000 mcg	> 1,250 mcg
Fluticasone MDI: 44, 110, or 220 mcg/puff DPI: 50, 100, or 250 mcg/inhalation	88–264 mcg 100–300 mcg	88–176 mcg 100–200 mcg	264–660 mcg 300–600 mcg	176–440 mcg 200–400 mcg	> 660 mcg > 600 mcg	> 440 mcg > 400 mcg
Triamcinolone acetonide 100 mcg/puff	400–1,000 mcg	400–800 mcg	1,000–2,000 mcg	800–1,200 mcg	> 2,000 mcg	> 1,200 mcg

* Children ≤ 12 years of age

Trigger Management

Trigger Management: Identifying and Avoiding Triggers

Why is it important?

- Triggers (allergens & irritants) make asthma worse
- Avoidance of exposure to triggers can prevent asthma symptoms and exacerbations.

How to help patients identify and reduce triggers:

1. **Review common triggers with the patient and family.**
 - Explain different types of triggers: **allergens** (pollens, molds), **irritants** (smoke, strong odors, and sprays), **physical changes** (cold air, exercise, emotions), **home environment** (dust mites, pets, cockroaches stuffed animals), and **URI** (colds, flu).
 - Explain how triggers affect their “super sensitive airways” and cause asthma symptoms.
 - Explain how removal or avoiding triggers in the environment can reduce their asthma symptoms and need for medication.
2. **Help the patient identify their triggers**
 - The best way to identify asthma triggers is through prick skin testing.
 - Some families find the use of a diary (notes) for 1-2 weeks to track symptoms and identify possible triggers helpful. (see FAM Allies Asthma Diary)
 - Use these questions to assess possible allergies associated with asthma:
 1. **Pollens & outdoor mold:** Is asthma worse in certain months? If so, are the symptoms the same as allergic rhinitis – sneezing, itching, runny nose, and obstructed airway?
 2. **Animal dander:** Do symptoms appear when visiting a house with indoor pets? If there are pets in their home, do symptoms improve when they are away from the house for a week or longer? Do they become worse the first 24 hours after returning home? Do eyes itch and become red after handling a pet? If the pet licks them, do they get a red itchy welt? Do symptoms appear in a room where carpets are being vacuumed?
 3. **Dust mites:** Do symptoms appear in a room where carpets are being vacuumed? Does making a bed cause symptoms?
 4. **Molds:** Do symptoms develop around hay or in a barn? Do symptoms develop when they go into a damp basement or a vacation cottage that has been closed up for a period of time?
 5. **Other school/work allergens:** Do symptoms develop related to a specific activity, at school or a job (either at the activity or after learning it)? Do they improve when away from the place for a few days?
 - Identify and prioritize actions to reduce triggers. Develop a plan that will work for them.
 - Use “Asthma Trigger Control Plan” sheet. Prioritize interventions. All items have been proven to be effective.
 - Focus on removing triggers in the bedroom first (to allow the body to cleanse itself at night i.e. “empty their bucket of allergen build up”). Pillow covers, mattress covers, and washing bed linen in hot water weekly are key interventions for most asthma patients that results in significant improvement in symptoms over time.
 - Removing exposure to second hand smoke is imperative.
3. **Review triggers and environmental controls at each follow up visit.** As patients gain better knowledge about their asthma, its symptoms and how to treat it, they will be more receptive to identifying triggers and implementing actions to control it.

Adapted from the State Medical Society of Wisconsin Asthma Toolkit

Evidence-Based Environmental Interventions for Triggers

TOBACCO SMOKE

1. If they smoke, assist them in quitting. Ask family members to quit smoking, too.
2. Do not allow smoking in the home or around the child with asthma.
3. Be sure no one smokes at the child's day care center (or other caregivers' homes).

DUST MITES

Explain: dust mites are like tiny "bugs" people cannot see that live in cloth or carpet.

Things that will help the most:

1. Encase the mattress in a special dust-proof cover.
2. Encase the pillow in a special dust-proof cover or wash the pillow each week in hot water. Water must be hotter than 130 degrees F to kill the mites.
3. Wash the sheets and blankets on the bed each week in hot water.

Other things that can help:

1. Reduce indoor humidity to less than 50 percent. Use dehumidifiers or central air conditioners to do this.
2. Try not to sleep or lie on cloth-covered cushions or furniture.
3. Remove carpets from the bedroom and those laid on concrete, if possible.
4. Keep stuffed toys out of the bed, wash the toys weekly in hot water, or freeze overnight in freezer.

ANIMAL DANDER

Some people are allergic to the flakes of skin or dried saliva from animals with fur or feathers.

The best thing to do:

1. Keep furred or feathered pets out of their home.

If they can't keep the pet outdoors, then:

1. Keep the pet out of the child's bedroom and keep the bedroom door closed.
2. Cover the air vents in your bedroom with heavy material to filter the air.*
3. Remove carpets and furniture covered with cloth from the home. If that is not possible, keep the pet out of the rooms where these are found.

VACUUM CLEANING

1. Stay out of rooms while they are being vacuumed and for a short while afterward.
2. If patients must vacuum, use a dust mask (from a hardware store), a double-layered or microfilter vacuum cleaner bag, or a vacuum cleaner with a HEPA filter.

COCKROACHES

Many people with asthma are allergic to the dried droppings and remains of cockroaches.

1. Keep all food out of the bedroom.
2. Keep food and garbage in closed containers (never leave food out).
3. Safely use poison baits, powders, gels, or paste (for example, boric acid). Also use traps.
4. If a spray is used to kill roaches, stay out of the room until the odor goes away.

INDOOR MOLD

1. Fix leaky faucets, pipes, or other sources of water.
2. Clean moldy surfaces with a cleaner with bleach.

POLLEN AND OUTDOOR MOLD

During the patient's allergy season when pollen or mold spore counts are high:

1. Try to keep windows closed.
2. Stay indoors with windows closed during the midday and afternoon, if possible. Pollen and some mold spore counts are highest at that time.
3. Take or increase anti-inflammatory medicine before the patient's allergy season starts.

SMOKE, STRONG ODORS, AND SPRAYS

1. If possible, do not use a wood-burning stove, kerosene heater, or fireplace.
2. Try to stay away from strong odors and sprays, such as perfume, talcum powder, hair spray, and paints.

EXERCISE, SPORTS, WORK, OR PLAY

Children should be able to be active without symptoms.

1. Recommend the patient see the doctor if they have asthma symptoms when they are active, exercising, doing sports, playing, or working hard.
2. Pre-treat with a bronchodilator medication before exercise to prevent symptoms.
3. Warm up for about 6 to 10 minutes before exercise.
4. Try not to work or play hard outside when the air pollution or pollen levels are high if triggered/allergic to pollen.

Source: National Asthma Education & Prevention Program (NAEPP) Guidelines

Other Things that Can Make Asthma Worse

1. **Flu:** All people with asthma should get a yearly influenza vaccine (flu shot).
2. **Sulfites in foods:** Do not drink beer or wine or eat shrimp, dried fruit, or processed potatoes if they cause asthma symptoms.
3. **Cold air:** Cover nose and mouth with a scarf on cold or windy days.
4. **Other medicines:** see the NHLBI guidelines more for specific medications (e.g. aspirin, beta-blockers)
5. **Consider triggers specific to schools/pre-school/day care** such as chalk dust.

Where to get Asthma Allergy Products:

(These companies are not endorsed by FAM Allies)


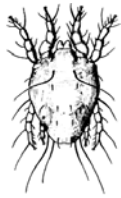


1. National Allergy Supply Company
1-800-522-1448
2. Allergy Supply Company
1-800-323-6744
3. American Allergy Supply
1-800-321-1096

Most companies have tear off flyers for providers to give to patients. Samples are often available.


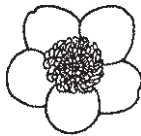



Source: National Asthma Education & Prevention Program (NAEPP) Guidelines

Asthma Trigger Control Plan

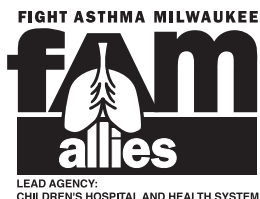
You can help prevent asthma flare-ups by keeping your child away from the things (asthma triggers) that make their asthma worse. Everyone’s triggers are different. Work with your child’s doctor to identify your child’s asthma triggers and ways to control them. By controlling the triggers, you can reduce the chance of an asthma flare-up and may decrease the need for more medicines.

Asthma Trigger	How to Control
<p>Tobacco Smoke</p> 	<ul style="list-style-type: none"> <input type="checkbox"/> If you smoke, ask your doctor for ways to help you quit. Ask family members to quit smoking too <input type="checkbox"/> Do not allow smoking in your house, car, or around your child <input type="checkbox"/> Keep your child away from smoke-filled areas <input type="checkbox"/> Be sure no one smokes at your child’s day care center
<p>House-dust Mites – tiny bugs you cannot see that live in cloth and carpet</p> 	<p>Things that will help the most:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Encase mattress & pillow in a special dust-proof cover <input type="checkbox"/> Wash sheets, blankets, & dust-proof covers each week in hot water (130°F) <p>Other things that can help:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Reduce indoor humidity to less than 50% <input type="checkbox"/> Try not to sleep or lie on cloth-covered cushions or furniture <input type="checkbox"/> Remove carpets from bedroom and those laid on concrete <input type="checkbox"/> Keep stuffed toys out of the bed or wash them in hot water weekly (130°F)
<p>Animal Dander - the flakes of skin or dried saliva that comes from animals with fur or feathers</p> 	<p>The best thing to do:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Keep furred or feathered pets out of your home <p>If you can’t keep pet outdoors, then:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Keep the pet out of your child’s bedroom and keep the door closed <input type="checkbox"/> Cover the air vents in child’s bedroom with a filter to filter the air <input type="checkbox"/> Remove the carpets and furniture covered with cloth from the home. If that is not possible, keep the pet out of the room’s where these are
<p>Cockroach – dried droppings and remains of the cockroach</p> 	<ul style="list-style-type: none"> <input type="checkbox"/> Keep all food out of bedrooms <input type="checkbox"/> Keep food and garbage in closed containers (never leave food out) <input type="checkbox"/> Use poison baits, powders, gels, or paste (for example, boric acid). You can also use traps <input type="checkbox"/> If a spray is used to kill roaches, keep child out of the room until the odor goes away

Asthma Trigger Control Plan (continued)

Asthma Trigger	How to Control
<p>Indoor Mold</p> 	<ul style="list-style-type: none"> <input type="checkbox"/> Fix leaky faucets, pipes, or other sources of water <input type="checkbox"/> Clean moldy surfaces with a cleaner that has bleach in it
<p>Pollen & Outdoor Mold – trees, grass, weeds or mold</p> 	<p>What to do during your allergy season (when pollen or mold spore counts are high):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Try to keep windows closed <input type="checkbox"/> Keep child indoors with windows closed during the midday and afternoon, if you can. Pollen and some mold spore counts are highest at that time <input type="checkbox"/> Ask your child's doctor whether you need to give or increase your child's anti-inflammatory medicine before their allergy season starts.
<p>Smoke, Strong Odors, and Sprays</p> 	<ul style="list-style-type: none"> <input type="checkbox"/> If possible, do not use a wood-burning stove, kerosene heater, or fireplace <input type="checkbox"/> Try to keep child away from strong odors and sprays, such as perfume, talcum powder, hair spray, and paints
<p>Exercise, Sports, Work, or Play</p> 	<ul style="list-style-type: none"> <input type="checkbox"/> Your child should be able to be active without symptoms. See your child's doctor if they have asthma symptoms when they are active – like when they exercise, do sports, play, or work hard <input type="checkbox"/> Ask your child's doctor about taking medicine before they exercise to prevent symptoms <input type="checkbox"/> Encourage child to warm up for about 6 to 10 minutes before they exercise <input type="checkbox"/> Try not to have child work or play hard outside when the air pollution or pollen levels (if your child is allergic to pollen) are high
<p>Other Things That Can Make Asthma Worse</p> 	<ul style="list-style-type: none"> <input type="checkbox"/> Flu: Get your child a flu shot <input type="checkbox"/> Sulfites in foods: Do not let your child drink beer or wine or eat shrimp, dried fruit, or processed potatoes if they cause asthma symptoms <input type="checkbox"/> Cold air: Have child cover nose and mouth with a scarf on cold or windy days <input type="checkbox"/> Other medicines: Tell your child's doctor about all the medicines your child is taking. Include cold medicines, aspirin, and even eye drops

Source: Adapted from National Institutes of Health



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Smoking Cessation Resources

Why is it important?

- Tobacco smoke is the most common asthma trigger, and can severely exacerbate asthma.
- Second hand smoke is avoidable. There are significant barriers, but it can be achieved.
- No person with asthma should smoke. Significant effort and interventions must be made to help them quit smoking. QUIT LINE: 1-877-270-STOP (7867)

How to help children avoid second hand smoke.

1. Encourage parents and care givers to quit smoking.

- It will significantly improve their child's asthma and potentially decrease the cost of intervention needed. Reinforce that it is the number one thing they can do to improve their child's asthma.
- Offer information on smoking cessation strategies and programs. Resources and information are available from the Center for Tobacco Research & Intervention at (414) 227-4507.
- **5A Process:**
 - **Ask** if they are a smoker
 - **Advise** to quit
 - **Assess** willingness to change behavior
 - **Assist** with counseling or pharmacotherapy
 - **Arrange** for follow up contact in person or by phone.
- Suggest they speak with their physician about smoking cessation. Physician recommendation to stop smoking is the #1 intervention. "Quitting smoking is the single most important thing you can do for your health."

2. If parents or caregivers will not quit smoking, encourage them to not smoke in areas where their child spends most of their time or around their child to keep a smoke free home.

- Offer information on smoking reduction or cessation strategies and programs.
- Encourage them to smoke outside in a special jacket to keep smoke off their clothes or avoid smoking when they are at home. At least, smoke in one room that the child does not enter.
- Do not smoke in the car (even if the child is not present) because smoke stays in the car seat upholstery.

3. Reinforce with the child the need to avoid tobacco smoke.

- Encourage them to leave the room if someone is smoking.
- If age appropriate, practice assertiveness and negotiation skills to ask someone to stop smoking around them or as an adult for assistance in removing them from the situation.

Assertiveness Skills

1. Describe the situation, just the facts: *"Smoke bothers my asthma"*
2. Say how you feel. Don't blame the other person for your feelings: *"I can't breathe well and it scares me."*
3. Ask for a specific & small change: *"Could you please stop smoking near me?"*
4. Say how this change will make you feel: *"It will make it easier for me to breathe and I will feel better."*

Source:

- Center for Tobacco Research and Intervention, University of Wisconsin Medical School (www.ctri.wisc.edu)
- Wisconsin Tobacco Control Board (www.wtcb.state.wi.us)
- US Surgeon General (www.surgeongeneral.gov/tobacco)

QUITTING TAKES HARD WORK AND A LOT OF EFFORT, BUT –

You Can Quit Smoking

SUPPORT AND ADVICE FROM YOUR CLINICIAN

A PERSONALIZED PLAN FOR:

WANT TO QUIT?

- Nicotine is a powerful addiction.
- Quitting is hard, but don't give up.
- Many people try 2 or 3 times before they quit for good.
- Each time you try to quit, the more likely you will be to succeed

GOOD REASONS FOR QUITTING:

- You will live longer and live healthier.
- The people you live with, especially your children, will be healthier.
- You will have more energy and breathe easier.
- You will lower your risk of heart attack, stroke, or cancer.

TIPS TO HELP YOU QUIT:

- Get rid of ALL cigarettes and ashtrays in your home, car, or work-place.
- Ask your family, friends, and co-workers for support.
- Stay in non-smoking areas.
- Breathe in deeply when you feel the urge to smoke.
- Keep yourself busy.
- Reward yourself often.

QUIT AND SAVE YOURSELF MONEY:

- At \$3.00 per pack, if you smoke 1 pack per day, you will save \$1,100 each year and \$11,000 in 10 years.
- What else could you do with this money?

U.S. Department of Health and Human Services
Public Health Service

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FIVE KEYS FOR QUITTING	YOUR QUIT PLAN
<p>1. GET READY.</p> <ul style="list-style-type: none"> • Set a quit date and stick to it – not even a single puff! • Think about past quit attempts. What worked and what did not? 	<p>1. YOUR QUIT DATE:</p> <p>_____</p> <p>_____</p>
<p>2. GET SUPPORT AND ENCOURAGEMENT.</p> <ul style="list-style-type: none"> • Tell your family, friends, and co-workers you are quitting. • Talk to your doctor or other health care provider. • Get group, individual, or telephone counseling. 	<p>2. WHO CAN HELP YOU:</p> <p>_____</p> <p>_____</p>
<p>3. LEARN NEW SKILLS AND BEHAVIORS.</p> <ul style="list-style-type: none"> • When you first try to quit, change your routine. • Reduce stress • Distract yourself from urges to smoke. • Plan something enjoyable to do every day. • Drink a lot of water and other fluids. 	<p>3. SKILLS AND BEHAVIORS YOU CAN USE:</p> <p>_____</p> <p>_____</p>
<p>4. GET MEDICATION AND USE IT CORRECTLY.</p> <ul style="list-style-type: none"> • Talk with your health care provider about which medication will work best for you: • Bupropion SR – available by prescription. • Nicotine gum – available over-the-counter. • Nicotine inhaler – available by prescription. • Nicotine nasal spray – available by prescription. • Nicotine patch – available over-the-counter. 	<p>4. YOUR MEDICATION PLAN:</p> <p>MEDICATIONS:</p> <p>_____</p> <p>INSTRUCTIONS:</p> <p>_____</p> <p>_____</p>
<p>5. BE PREPARED FOR RELAPSE OR DIFFICULT SITUATIONS.</p> <ul style="list-style-type: none"> • Avoid alcohol. • Be careful around other smokers. • Improve your mood in ways other than smoking • Eat a healthy diet and stay active. 	<p>5. HOW WILL YOU PREPARE?</p> <p>_____</p> <p>_____</p>

Quitting smoking is hard. Be prepared for challenges, especially in the first few weeks.

Follow-up plan: _____

Other information: _____

Referral: _____

Clinician

Date



How to Help Children Avoid Second Hand Smoke

1. **Parents and caregivers such as babysitters should not smoke. Quitting smoking is a great gift to give your child.**
 - It will significantly improve their child's asthma and potentially decrease the cost of intervention needed. It is the number one thing they can do to improve their child's asthma.
 - Information on smoking cessation strategies and programs is available from the QUIT LINE 1-877- 270-STOP (7867)
 - Speak with your physician about smoking cessation. Quitting smoking is the single most important thing you can do for your health.

2. **If parents or caregivers will not quit smoking, do not smoke in areas where your child spends most of their time or around your child.**
 - Smoke outside in a special jacket to keep smoke off your clothes, or avoid smoking at home.
 - At a minimum, smoke in one room that the child does not go into.
 - Do not smoke in the car (even if the child is not present) as smoke stays in the car upholstery.

3. **Reinforce with your child the need to avoid tobacco smoke.**
 - Encourage them to leave the room if someone is smoking.
 - Practice assertiveness skills to ask someone to stop smoking around them or ask an adult for assistance in removing them from the situation.

Assertiveness Skills

1. Describe the situation; just the facts: *"Smoke bothers my asthma."*
2. Say how you feel: *"I can't breathe well and it scares me."* Don't blame the other person for your feelings.
3. Ask for a specific & small change: *"Could you please stop smoking near me?"*
4. Say how this change will make you feel: *"It will make it easier for me to breathe and I will feel better."*

Medications
&
Delivery Devices

Medications by Zone

Elements from NIH Asthma Action Plan

to consider for writing in on FAM Allies Action Plan:

(See NIH Asthma Guidelines and AAAAI booklet for specific information on treatment recommendations.)

Green Zone:

Symptoms: No cough, wheeze, chest tightness or SOB during the day or night. Can do usual activities.

Peak Flow: 80% or more of personal best.

1. Daily use of long-term controller medicines (e.g. inhaled steroid) for patients with mild, moderate or severe asthma.
2. Pre-treat before exercise with short-acting bronchodilator 2-4 puffs, 15-30 minutes before exercise, or 50-60 minutes with a long-acting bronchodilator.

Yellow Zone:

Symptoms: cough, wheeze, chest tightness or SOB; or waking at night due to asthma; or can do some, but not all, usual activities.

Peak Flow: 50-80% of personal best

1. Short-acting bronchodilator [Quick relief medication] for asthma symptoms 2-4 puffs every 20 minutes for up to one hour.
2. Consider nebulizer use at home.

Flare-up with symptoms not returning to green zone in 1 hour:

3. Continue short-acting bronchodilator every 4 hours for 1 to 2 days.
4. Double the dose of the inhaled steroid for 7-10 days.
5. Add oral steroid for 3-10 days & continue quick relief medication 2-4 puffs or nebulizer every 4 hours.

Red Zone:

Symptoms: very short of breath, or quick-relief meds have not helped, or cannot do usual activities, or symptoms are worse after 24 hours in the yellow zone.

Peak Flow: less than 50% of personal best

1. Short Acting bronchodilator 4-6 puffs or nebulizer
2. Oral steroids
3. Still in red zone 15 minutes after treatment. Call doctor or go to ED
4. **DANGER signs:** trouble walking or talking due to SOB. Lips or fingernails are blue

Other Medication notes:

1. Clarify for patients: “long-term control” medicines versus “quick-relief” medicines.
2. Remember to “step down” medications as long-term asthma control improves.

Asthma Medications

You and your child should know the name of each asthma medicine that your child is taking. Each person's asthma is different, and the medicines that help one person, may not help another. Always use the medicines in the amount and method prescribed by your doctor. Always make sure there is enough medicine on hand.

QUICK RELIEF MEDICINES			
Bronchodilators			
Brand Name	Generic Name	Things to Know	Possible Side Effects
Proventil-HFA Ventolin	Albuterol	<ul style="list-style-type: none"> Relaxes muscles to open airways. Should be taken first, if other inhalers are taken at the same time. 	<ul style="list-style-type: none"> Shaky hands, "hyper" feeling, fast heartbeat, headache. Side effects usually last only a short time, and will probably go away after using the medicine regularly.
Alupent	Metaproterenol	<ul style="list-style-type: none"> Try to wait 1-3 minutes between puffs to allow the first puff to begin working. 	<ul style="list-style-type: none"> Call the doctor if side effects are too bothersome or do not go away.
Maxair	Pirbuterol		
Brethair Brethine	Terbutaline	<ul style="list-style-type: none"> Begins to work in @ 5 minutes, and lasts 4-6 hours. 	
LONG-TERM, CONTROL MEDICINES			
Long-Term, Control Bronchodilators			
Brand Name	Generic Name	Things to Know	Possible Side Effects
Oral Proventil Repetab Volmax	Albuterol	<ul style="list-style-type: none"> Relaxes muscles to open airways Works in 1 hour, and lasts 9-12 hours Never use to relieve symptoms 	<ul style="list-style-type: none"> Shaky hands, "hyper" feeling, fast heartbeat, headache Side effects usually last only a short time, and will probably go away after using the medicine regularly. Call the doctor if side effects are too bothersome or do not go away.
Inhaled Serevent	Salmeterol		
Foradil Aerolizer	Formoterol	<ul style="list-style-type: none"> Formoterol works quickly 	
Oral Bronchodilators			
Slobid TheoDur Uniphyll Others	Theophylline	<ul style="list-style-type: none"> Relaxes muscles to open airways Must be taken regularly each day Works in 4-6 hours, and lasts 8-12 hours 	<ul style="list-style-type: none"> Nausea, vomiting, tremors, sleep problems, bedwetting, behavior changes. These usually occur with high doses. Call the doctor if side effects appear or if a fever is over 102°F.
Other Inhaled Bronchodilators			
Atrovent Various	Ipratropium Atropine	<ul style="list-style-type: none"> When used in combination with other medicines that open airways, it increases airway relaxation. 	<ul style="list-style-type: none"> Dry mouth, fast heartbeat, flushed (red) skin Drink plenty of fluids for the dry mouth. If side effects continue, call the doctor.
Inhaled, Combination Medicines			
Advair (Flovent+Sereven)	Fluticasone propionate & Salmeterol	<ul style="list-style-type: none"> Controls both airway swelling and muscle constriction Take everyday, even when feeling well Advair will not replace quick relief medicines for sudden symptoms 	<ul style="list-style-type: none"> Palpitations, chest pain, rapid heart rate Hives, rash, bronchospasm Thrush (yeast infection, tiny white spots in mouth)

Asthma Medications (continued)

Inhaled, Anti-Inflammatories (Corticosteroids)			
Brand Name	Generic Name	Things to Know	Possible Side Effects
Beclivent Vanceril	Beclomethasone	<ul style="list-style-type: none"> Prevents swelling, inflammation, and mucus in the airways. Takes days or weeks to work Prevents asthma flare-ups 	<ul style="list-style-type: none"> Hoarseness Possible thrush; rinse mouth after each use to prevent thrush.
Pulmicort	Budesonide	<ul style="list-style-type: none"> Take this medicine everyday as prescribes by the doctor. Don't stop taking this medicine unless the doctor tells you to stop. 	
AeroBid Nasarel	Flunisolide	<ul style="list-style-type: none"> Preferred treatment for persistent asthma. 	
Flovent	Fluticasone	<ul style="list-style-type: none"> Taken in usual prescribed doses, do not affect growth 	
Azmacort Kenalog	Triamcinolone	<ul style="list-style-type: none"> Rinse mouth after use 	
Inhaled, Anti-Inflammatories (Non-Steroidal)			
Intal	Cromolyn	<ul style="list-style-type: none"> Prevents swelling and inflammation by stabilizing cells that line the airway. Blocks the reaction to triggers. Takes weeks to work Do not take more often that 4 times per day. Take every day as instructed by the doctor, and do not stop taking until the doctors says you can. 	<ul style="list-style-type: none"> Side effects are very rare.
Tilade	Nedocromil		
Leukotriene Modifiers			
Accolate	Zafirlukast	<ul style="list-style-type: none"> Prevents swelling, inflammation, and mucus Never use to relieve symptoms. Accolate should be taken on an empty stomach. 	<ul style="list-style-type: none"> Headaches or stomachaches Call doctor if flu-like symptoms occur. If on Zyflo, may need a blood test to check how the liver is working
Singulair	Montelukast		
Zyflo	Zileuton		
Oral Corticosteroids			
Medrol	Methylprednisol one	<ul style="list-style-type: none"> Decreases swelling, inflammation, and mucus in the airways Take exactly as prescribed by your doctor. Works in 6-12 hours 	<ul style="list-style-type: none"> Increased appetite, stomachache, mood changes, fluid retention, facial flushing, may cause temporary joint pain after it is stopped. Long term use may cause other side effects; talk to your doctor. Take with food or milk to avoid stomachache
Pediapred	Prednisolone		
Prelone Others			
Various	Prednisone		



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Inhalers and Correct Inhaler Technique

Correct inhaler technique improves medication absorption.

A. Traditional Meter Dose Inhalers (MDI)

1. **Steps:** (Shake, push & inhale)

Get Ready	<ol style="list-style-type: none"> 1. Take off the cap and shake canister. 2. Breathe out all the way. 3. Hold the inhaler <ol style="list-style-type: none"> a. with spacer in the mouth b. without spacer, 1-2 inches in front of the mouth <p>Spacers are recommended for patients of all ages.</p>
Breathe in slowly	<ol style="list-style-type: none"> 4a. With spacer: First press down on the inhaler and then breathe in. 4b. Without spacer: start to breathe in slowly through the mouth, and press down on the inhaler one time. 5. Keep breathing in slowly, as deep as possible.
Hold your breath	<ol style="list-style-type: none"> 6. Hold the breath and count to 10 slowly, if possible. 7. For inhaled quick-relief medication, wait about 1 minute between puffs.

2. **Cleaning:** Clean the hole where the medicine sprays out when you see powder around it. Remove the canister, and rinse the plastic mouthpiece and spacer periodically. Let them air dry over night.
3. **Teach patients to know when to replace their inhaler:** The medicine will be gone before the canister stops spraying. They need to count the days (for daily medication) or puffs for quick-relief medications. Example: If a new canister has 200 puffs in it (see label) and they take 8 puffs per day: $200 / 8 = 25$ days. Calculate for the patient if possible and write the date to replace on the canister. Mark the canister and family calendar with the date to change it.

B. Turbuhaler – Dry Powder Inhaler (DPI)

1. **Steps:** (Twist, click, inhale)

- a. **Loading a dose:** hold Turbuhaler upright, twist off cover and lift off. Then twist the grip fully to the right and back to the left. A click will be heard. (Do it twice with a new inhaler to “prime” it. Then load a dose – for a total of 3 times.)
- b. **Inhaling the Medicine:** Turn the head away from the inhaler and breathe out (do not blow into the inhaler). Place lips on the mouthpiece and breathe in deeply and forcefully.

2. **Teach patients to know when to replace their inhaler:** The dose indicator will tell patients when they are running low on medicine. When the window is clear, it has medicine. When the top of the window is red, it is running low – about 20 doses left (time to get a refill if needed.) When the red is at the bottom of the window, it is empty. Replace it.

C. Diskus – Dry Powder Inhaler (DPI)

1. **Steps:** (Open, click, inhale)

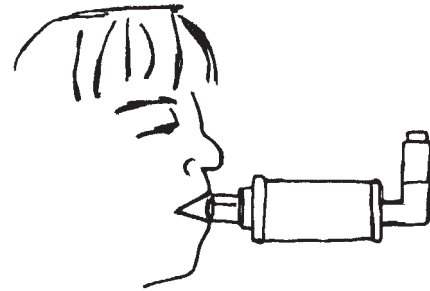
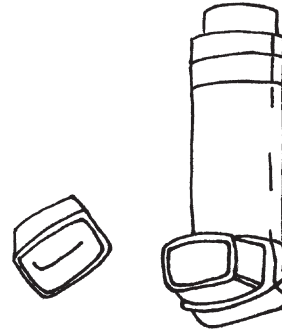
- a. Open the device the by holding the Diskus in one hand, and use the other hand to grab the grip and push it away to show the lever.
- b. Push the lever away until the patient hears and/or feels a click.
- c. Turn their head away from the inhaler and breathe out (do not blow into the inhaler). Place their lips on the mouthpiece and breathe in deeply and forcefully. Close when done.

2. **Teach patients to know when to replace their inhaler:** The dose counter will tell them when to refill it. The last 5 doses are in red.

Using an Inhaler with Spacer

Spacers increase the amount of medicine that reaches the airways, and can decrease side effects. Poor technique results in less medicine in the airways. Use a spacer as instructed by health care providers.

1. Remove cap
2. Attach the inhaler to a spacer
3. Shake the inhaler
4. Stand up
5. Breathe out
6. Put the spacer between lips (if using a mask, cover nose and mouth keeping a tight seal)
7. Press down on the canister
8. Breathe in and keep breathing in slowly until your lungs are full



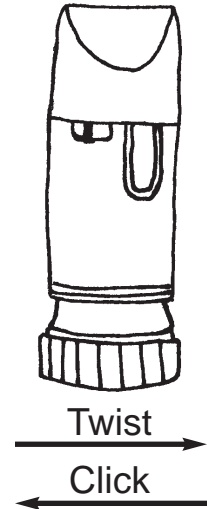
***If using a mask, keep tightly on face for 6-10 breaths (Skip 9-12)**

9. Hold your breath for 10 seconds
10. Breathe out
11. Breathe in once more through the spacer without pressing on the canister
12. Wait 60 seconds before taking the next puff
13. Repeat steps 3-12 as prescribed by a doctor

Dry Powder Inhalers

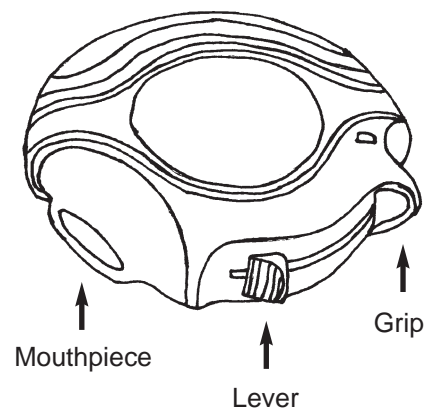
Turbuhaler® (Twist, Click, Inhale)

1. New Turbuhaler®:
 - Twist and click two times to “prime”
2. Loading a dose:
 - Hold Turbuhaler® upright
 - Twist the cover and lift off
 - Twist the grip fully to the right and then back to the left. Hear the Click!
3. Inhaling the Medicine:
 - Turn your head away from the Turbuhaler® and breathe out (do not blow into the Turbuhaler®)
 - Place your lips on the mouthpiece and breathe in quickly and deeply
 - Hold breath for about 10 seconds
 - Repeat steps 2 and 3 as prescribed
 - Close when done
4. Know when to replace your Turbuhaler®:
 - The dose indicator will tell you when you are running low on medicine.
 - Check the window:
 1. Clear = Medicine
 2. Red at the top = Running low, Get a Refill! (about 20 doses are left)
 3. Red at the bottom = Empty



Diskus® (Open, Click, Inhale)

1. Steps
 - Open: hold the Diskus® in one hand, and push the grip with your other thumb until the mouthpiece appears and snaps into place
 - Push the lever away until you hear and feel a Click
 - Turn your head away from the Diskus® and breathe out (do not blow into the Diskus®)
 - Place your lips on the mouthpiece and breathe in deeply and forcefully
 - Hold breath for about 10 seconds
 - Repeat as prescribed
 - Close when done
2. Know when to Replace your Diskus®:
 - The dose counter will tell you when to refill it. The last five doses are in red.

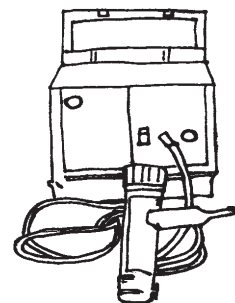
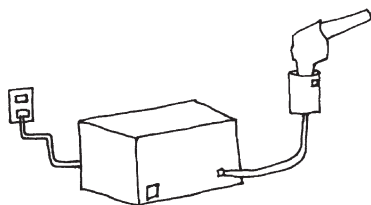


Nebulizer Treatments

A nebulizer, “neb machine”, turns medicine into a mist that can be inhaled into the lungs. Often medicines can be mixed together in a nebulizer. Check with your doctor or a pharmacist about mixing medicines.

Set up the Nebulizer:

1. Set machine on level surface
2. Plug the machine into an electrical outlet, if needed
3. Wash your hands with soap and water
4. Assemble equipment
5. Put the medicine in the nebulizer cup



Giving a Treatment:

1. Have the person sit in an upright position
2. Put the mouthpiece in the mouth, between teeth, and close the lips (If using a mask, cover mouth and nose with the mask)
3. Turn the machine on
4. Keep the nebulizer medicine cup in an upright position
5. Take slow, deep breaths through mouthpiece (When using mask, encourage breathing through mouth, if possible)
6. Hold each breath for 10 seconds, then exhale slowly through the mouthpiece
7. The treatment is done when all the medicine is used and no mist can be seen (You may need to tap the side of the medicine cup during treatment)
8. Wash face if using a mask to prevent rash

Cleaning and Storage:

1. Disassemble parts
2. Set tubing aside
 - Do not soak, wash, or rinse tubing. Replace if it becomes cloudy, discolored, or wet inside
3. Rinse in warm water
4. Let all pieces air-dry on a paper towel
5. When completely dry, store pieces in a plastic bag or container

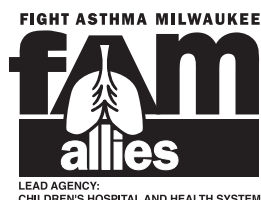


Disinfect Once per Week:

1. Soak medicine cup, t-piece, mouthpiece, and mask in ½ strength vinegar for at least 10 minutes, but preferably overnight
2. Rinse with water
3. Air-dry completely on a paper towel
4. When completely dry, store pieces in a plastic bag or container

Care of the Machine:

1. Wipe with a damp cloth, as needed.
2. Check filter monthly. Change the filter every 6 months or sooner if discolored.
3. Nebulizer medicine cups should be replaced every month.
4. The compressor is usually serviced every 5 years. Follow the product warranty.



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Questions? Call (414) 390-2179

**Patient
Self-Management
Tools**

Written Asthma Action Plan

Why is it important?

- Patients are being asked to manage complex treatment plans with different medications, doses, and environmental interventions. Use of written action plans is associated with a significantly reduced risk of asthma Emergency Department visits and hospital stays.
- Action plans have been shown to improve patient & family quality of life and decrease Emergency Department visits.

How to help patients use it correctly

1. A written action plan is recommended for all patients with persistent asthma (mild, moderate, & severe). It should be given to the patient and a copy placed in the patient's chart.
2. Ideally, the patient keeps the action plan in an easily accessible location (e.g. with asthma medicine, on refrigerator). It should be referred to periodically, especially when the child has asthma symptoms.
3. Copies of the action plan should be given to the school health room staff, teachers, daycare providers, relatives/friends for overnight activities and included in babysitter information.
4. An action plan is composed of three elements:
 - a. What to do when not having symptoms (daily medicines & pre-treat for exercise),
 - b. What to do when having asthma symptoms (including interventions, and when to call the doctor),
 - c. What to do to control triggers.
5. Action plans (and interventions) can be symptom or peak flow meter based. A combination of both is ideal.
6. Patients should bring their action plan and medications to any physician office visit or Emergency visit. Update the plan annually (or each time the personal best peak flow changes).

Asthma Diaries

Why are they important?

- Parents and patients often remember only the most recent 2 weeks when describing asthma control to their physician. Keeping a small diary or list of flare-ups and related triggers helps the provider in evaluating asthma control. It is especially important when beginning to identify possible triggers and in establishing initial asthma control.

How to use asthma diaries

- Ask parents or the child to keep a list of when their child had an asthma flare-up and what might have triggered it (e.g. Jan. 5 – cold virus; Feb. 16 – tobacco smoke). Additional information that can be recorded are: peak flow reading, actions taken, severity of symptoms.
- Bring the diary or list to the physician office visit.

Name: _____

Doctor: _____ Date: _____


Phone for doctor or clinic: _____


Phone for taxi or friend: _____




Controlled Asthma Is:

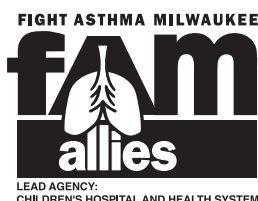
1. No cough or wheeze during day or night.
2. Best possible lung function.
3. No missed school or work.
4. No emergency visits for asthma.
5. Few side effects from medicines.
6. Satisfied with asthma care.

<p>1. Green = GO</p> <ul style="list-style-type: none"> • Breathing is good • No cough or wheeze • Can work and play  <p>If peak flow meter is used: Peak flow greater than _____ (80% of my personal best) My personal best peak flow is _____</p>	<p>Use long-term control medicine and avoid asthma triggers</p> <table border="0"> <tr> <td style="text-align: center;">Medicine</td> <td style="text-align: center;">How much to take</td> <td style="text-align: center;">When to take it</td> </tr> <tr> <td colspan="3">_____</td> </tr> <tr> <td colspan="3">_____</td> </tr> <tr> <td colspan="3">_____</td> </tr> </table> <p>Before exercise: _____</p>	Medicine	How much to take	When to take it	_____			_____			_____										
Medicine	How much to take	When to take it																			

<p>2. Yellow = CAUTION</p> <ul style="list-style-type: none"> • Cough • Wheeze • Tight chest • Wake up at night  <p>This is not where you should be every day. Take action to get your asthma under control.</p> <p>If peak flow meter is used: _____ to _____ (50 – 79% of personal best)</p>	<p>Take quick-relief medicine to keep asthma from getting bad</p> <table border="0"> <tr> <td style="text-align: center;">Medicine</td> <td style="text-align: center;">How much to take</td> <td style="text-align: center;">When to take it</td> </tr> <tr> <td colspan="3">_____</td> </tr> <tr> <td colspan="3">_____</td> </tr> <tr> <td colspan="3">_____</td> </tr> </table> <p>Pay special attention to your Trigger Control Plan:</p> <table border="0"> <tr> <td><input type="checkbox"/> Avoid Tobacco Smoke</td> <td><input type="checkbox"/> Prevent Cockroaches</td> </tr> <tr> <td><input type="checkbox"/> Wash Bedding Weekly</td> <td><input type="checkbox"/> Clean Mold</td> </tr> <tr> <td><input type="checkbox"/> Pets Out of Bedroom</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Others:</td> <td></td> </tr> </table>	Medicine	How much to take	When to take it	_____			_____			_____			<input type="checkbox"/> Avoid Tobacco Smoke	<input type="checkbox"/> Prevent Cockroaches	<input type="checkbox"/> Wash Bedding Weekly	<input type="checkbox"/> Clean Mold	<input type="checkbox"/> Pets Out of Bedroom		<input type="checkbox"/> Others:	
Medicine	How much to take	When to take it																			

<input type="checkbox"/> Avoid Tobacco Smoke	<input type="checkbox"/> Prevent Cockroaches																				
<input type="checkbox"/> Wash Bedding Weekly	<input type="checkbox"/> Clean Mold																				
<input type="checkbox"/> Pets Out of Bedroom																					
<input type="checkbox"/> Others:																					
<p>3. Red = STOP = DANGER</p> <ul style="list-style-type: none"> • Medicine is not helping • Breathing is hard and fast • Nose opens wide • Can't walk • Ribs show • Can't talk well  <p>If peak flow meter is used: Peak flow less than _____ (50% of personal best)</p>	<p>Get help from a doctor now!</p> <p>Take these medicines until you talk to the doctor:</p> <table border="0"> <tr> <td style="text-align: center;">Medicine</td> <td style="text-align: center;">How much to take</td> <td style="text-align: center;">When to take it</td> </tr> <tr> <td colspan="3">_____</td> </tr> <tr> <td colspan="3">_____</td> </tr> </table> <p>Go to the hospital or call an ambulance if:</p> <ul style="list-style-type: none"> • You are still in the red zone after 15 minutes AND • You have not talked with your doctor <p>Danger Signs – CALL 911 if:</p> <ul style="list-style-type: none"> • Trouble walking or talking due to shortness of breath • Lips or fingernails are pale blue or gray in color 	Medicine	How much to take	When to take it	_____			_____													
Medicine	How much to take	When to take it																			


Source: Adapted from NICHQ



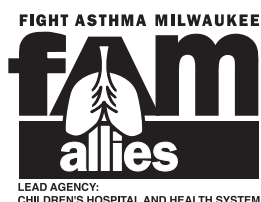
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Questions? Call (414) 390-2179

Name: _____ Doctor: _____ Date: _____

Phone for taxi or friend: _____ Phone for doctor or clinic: _____

<p>Green Zone = Doing well</p> <ul style="list-style-type: none"> No cough, wheeze, chest tightness, or shortness of breath during day or night. Can do usual activities <p>If peak flow meter is used: Peak flow greater than _____ (80% of my personal best) My personal best peak flow is _____</p>	<p>Take these long-term control medicines each day and avoid asthma triggers</p> <table border="0"> <tr> <td>Medicine →</td> <td>How much to take →</td> <td>When to take it</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </table> <p>Before exercise take: <input type="checkbox"/> _____ <input type="checkbox"/> 2 puffs or <input type="checkbox"/> 4 puffs _____ min. before exercise</p>	Medicine →	How much to take →	When to take it	_____	_____	_____	_____	_____	_____	_____	_____	_____
Medicine →	How much to take →	When to take it											
_____	_____	_____											
_____	_____	_____											
_____	_____	_____											
<p>Yellow Zone = Getting Worse</p> <ul style="list-style-type: none"> Cough, wheeze, chest tightness, or shortness of breath, or Waking at night due to asthma, or Can do some, but not all, usual activities  <p>If peak flow meter is used: _____ to _____ (50 – 79% of personal best)</p>	<p>Add quick relief medicine and keep taking your green zone medicine</p> <p>1st Take your quick relief medicine: <input type="checkbox"/> _____ <input type="checkbox"/> 2 puffs or <input type="checkbox"/> 4 puffs or <input type="checkbox"/> _____cc's Nebulizer (Short-acting bronchodilator) every 20 minutes up to 1 hour</p> <p>2nd If you return to the green zone after 1 hour of above treatment: <input type="checkbox"/> Take quick relief medicine every _____ hours for 1-2 days <input type="checkbox"/> Double the dose of your inhaled steroid for _____ days</p> <p>or If you do not return to the green zone after 1 hour of above treatment: <input type="checkbox"/> Take: _____ <input type="checkbox"/> 2 puffs or <input type="checkbox"/> 4 puffs or <input type="checkbox"/> _____cc's Nebulizer (Short-acting bronchodilator) <input type="checkbox"/> Add: _____ ml or mg per day for _____ days (Oral steroid) <input type="checkbox"/> Call the doctor before taking oral steroids, or within _____ hours after taking the oral steroid</p>												
<p>Red Zone = Medical Alert!</p> <ul style="list-style-type: none"> Very short of breath, or Quick relief medicines have not helped, or Cannot do usual activities, or Symptoms are same or worse after 24 hours in the yellow zone <p>If peak flow meter is used: Peak flow less than _____ (50% of personal best)</p>	<p>Get Help from a Doctor NOW!</p> <p>Take this medicine: <input type="checkbox"/> _____ <input type="checkbox"/> 2 puffs or <input type="checkbox"/> 4 puffs or <input type="checkbox"/> _____cc's Nebulizer (Short-acting bronchodilator) <input type="checkbox"/> _____ ml or mg (Oral steroid)</p> <p>Call your doctor immediately. Go to the hospital or call an ambulance if:</p> <ul style="list-style-type: none"> You are still in the red zone after 15 minutes AND You have not talked with your doctor <p>Danger Signs – CALL 911 if:</p> <ul style="list-style-type: none"> Trouble walking or talking due to shortness of breath Lips or fingernails are pale blue or gray in color 												

Source: Adapted from NAEPP



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Asthma Diary

<p>Green Zone (Doing Well) – No asthma symptoms (i.e. cough, wheeze, tight chest, short of breath) during the day or night. Breathing is good and can do usual activities.</p>				<p>Yellow Zone (Caution – Getting Worse) – Having asthma symptoms (i.e. cough, wheeze, tight chest, wakes up at night). Can do some, but not all, usual activities.</p>				<p>Red Zone (Danger) – Very short of breath, quick relief medicine is not helping, breathing is hard and fast, cannot do usual activities. Seek Medical Help, NOW!</p>						
Date														
Peak Flow #														
Zone:	<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> G	<input type="radio"/> G
Green, Yellow or Red	<input type="radio"/> Y	<input type="radio"/> Y	<input type="radio"/> Y	<input type="radio"/> Y	<input type="radio"/> Y	<input type="radio"/> Y	<input type="radio"/> Y	<input type="radio"/> Y	<input type="radio"/> Y	<input type="radio"/> Y	<input type="radio"/> Y	<input type="radio"/> Y	<input type="radio"/> Y	<input type="radio"/> Y
	<input type="radio"/> R	<input type="radio"/> R	<input type="radio"/> R	<input type="radio"/> R	<input type="radio"/> R	<input type="radio"/> R	<input type="radio"/> R	<input type="radio"/> R	<input type="radio"/> R	<input type="radio"/> R	<input type="radio"/> R	<input type="radio"/> R	<input type="radio"/> R	<input type="radio"/> R
Long-term Control Medicines (List your daily medications and record number of times used)														
Quick Relief Medicines (Record number of times used)														
Symptoms (Mark with an X)														
Cough														
Tight Chest														
Short of Breath														
Wheeze														
Wake up at Night														
Missed School/Work														
Less Activities														
Other														
Triggers (Mark with an X)														
Smoke														
Animals														
Weather														
Dust														
Strong Smells														
Other														

Source: Adapted from NAEPP

FIGHT ASTHMA MILWAUKEE



LEAD AGENCY:
CHILDREN'S HOSPITAL AND HEALTH SYSTEM

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Questions? Call (414) 390-2179

Peak Flow Meters

Why are they important?

- Peak flow meters help provide a simple **objective measure of airway obstruction**.
- They can be used at home, school, physician office, or ED.
- When combined with symptom assessment, peak flow meters help identify the severity of the symptoms, effectiveness of interventions, and early detection of airway obstruction (even before symptoms occur).
- **Limitations:** peak flow measures are effort dependent and measure only large airway function. Peak flow measures are not sufficient for diagnosis or to fully evaluate physiological function. Long-term regular home use is difficult related to compliance. Short-term and periodic use is often more successful.
- Most insurers will cover the cost of a peak flow meter. Recommended for all moderate and severe asthma patients but can be helpful for mild asthma too.

How to use peak flow meters in the office

1. Train office staff to obtain a peak flow meter reading (or spirometry) when rooming all asthma patients age 5 and up for acute asthma flare-up, asthma follow-up, and preventive asthma visits.
2. Obtain a peak flow reading 5-10 minutes after a quick-relief nebulizer treatment to evaluate effectiveness.
3. Use measurements during preventive visits (or from home) to establish a personal best (child's "normal" value). Use to determine "zones" for action plan.

How to use peak flow meters with a written action plan at home and school

- Peak flow meters (with action plan & symptom assessment) **at the time of asthma symptoms** help patients identify the severity of their symptoms and what interventions to take. They **support the parent/child and school personnel**:
 - in **decision making on treatment** (e.g. inhaler vs. nebulizer, 2 puffs vs. 4-6 puffs quick-relief medicine, home treatment vs. emergency visit)
 - in **evaluating effectiveness of intervention**
 - in **evaluating when to call for help** (physician, emergency department, 911).
- Peak flow meters provide an objective measure of airflow, and when combined with symptom identification, can offer the older child, parent, caregiver, and physician (usually over the phone) more information to make treatment decisions.
- Peak flow meters at school can help parents and school personnel determine when the parent needs to pick up their child from school and when the child can go back to class.
- Peak flow meters can be especially helpful for **new asthma patients** as they learn to identify symptoms, assess the severity of their symptoms, and evaluate when they are relieved.
- Taken on a regular basis, peak flow meters may identify flare-ups before symptoms occur. This is especially helpful for patients trying to get their asthma under control.

Practical expectation of peak flow meter use:

- Daily peak flow readings for 6 -12 months to develop self management skills & confidence then periodic peak flow reading to maintain personal best and peak flow measures with flare up to assist with decision-making.

How to Use Your Peak Flow Meter

A peak flow meter measures how well you can move air out of your lungs. Peak flow meters are most helpful for people with moderate or severe asthma. This guide will tell you (1.) how to find your personal best peak flow number, (2.) how to use your personal best number to set your peak flow zones, (3.) how to take your peak flow, and (4.) when to take your peak flow to check your asthma each day.

Starting Out: Find Your Personal Best Peak Flow Number

To find your personal best peak flow number, take your peak flow each day for 2 to 3 weeks. Your asthma should be under good control during this time. Take your peak flow as close to the times listed below as you can. These times for taking your peak flow are only for finding your personal best peak flow.

- At least twice a day for 2-3 weeks.
- When you wake up, and between noon and 2:00p.m. each day
- Each time you take your quick-relief medicine to relieve symptoms (measure your peak flow after you take your medicine)
- Any other time your doctor suggests

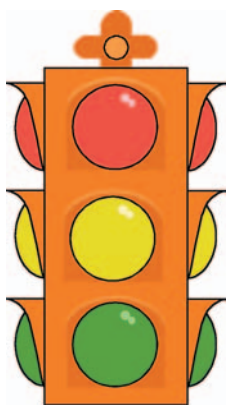
Write down the number you get for each peak flow reading. The highest repeating peak flow number you had during the 2 to 3 weeks is your personal best.

Your personal best can change over time. Ask your doctor when to check for a new personal best.

To check your asthma each day, you will take your peak flow in the morning. This is discussed on the next page.

Your Peak Flow Zones

Your peak flow zones are based on your personal best peak flow number. The zones will help you check your asthma and take the right actions to keep it controlled. The colors used with each zone come from the traffic light.



Green Zone

(80 to 100 percent of your personal best) signals good control. Take your usual daily long-term-control medicines, if you take any. Keep taking these medicines even when you are in the yellow or red zones.

Yellow Zone

(50 to 79 percent of your personal best) signals caution: your asthma is getting worse. Add quick-relief medicines. You might need to increase other asthma medicines as directed by your doctor.

Red Zone

(below 50 percent of your personal best) signals medical alert! Add or increase quick-relief medicines and call your doctor now.

Ask Your Doctor to Write an Action Plan for You that Tells You:

- The peak flow numbers for your green, yellow, and red zones. Mark the zones on your peak flow meter with colored tape or a marker.
- The medicines you should take while in each peak flow zone.

How to Use Your Peak Flow

1. Move the marker to the bottom of the numbered scale.
 2. Stand up or sit up straight.
 3. Take a deep breath. Fill your lungs all the way.
 4. Hold your breath while you place the mouthpiece in your mouth, between your teeth. Close your lips around it. Do not put your tongue inside the hole.
 5. Blow out as hard and as fast as you can. Your peak flow meter will measure how fast you can blow out air.
 6. Write down the number you get. But if you cough or make a mistake, do not write down the number. Do it over again.
 7. Repeat steps 1 through 6 two more times. Write down the highest of the three numbers. This is your peak flow number.
 8. Check to see which peak flow zone your peak flow number is in. Do the actions your doctor told you to do while in that zone.
- Your doctor may ask you to write down your peak flow number each day. You can do this on a calendar or other paper. This will help you and your doctor see how your asthma is doing over time.

Checking Your Asthma: When to Use Your Peak Flow Meter

- Every morning when you wake up, before you take medicine. Make this part of your daily routine.
- When you are having asthma symptoms or an attack. And after taking medicine for the attack. This can tell you how bad your asthma attack is and whether your medicine is working.
- Any other time your doctor suggest. If you use more than one peak flow meter (such as at home and at school), be sure that both meters are the same brand.

Bring to Each of Your Doctor Visits

- Your peak flow meter.
 - Your peak flow numbers if you have written them down each day.
- Also, ask your doctor or nurse to check how you use your peak flow meter – just to be sure you are doing it right.

Adapted from NAEPP

School / Pre-School / Childcare Management

Why is it important?

- Children spend 6 to 12 hours a day at school, preschool, and/or childcare.
- Consistent asthma care in non-home locations is a key to good asthma control.

How do I assist parents with school /preschool / childcare linkages?

1. **Parents should work with the teacher / childcare provider to assure consistent asthma care from home to school.**
 - Use the School Management Plan or Asthma Action Plan.
 - Parents should establish a mutually agreed upon plan with the teacher/provider prior to the school year starting (if possible). Many schools offer conferences or orientation days.
 - If a child needs to pre-treat before gym class, discuss school layout and options.
 - Arrange an indoor recess plan for asthma ozone days, respiratory infections, and cold weather days.
 - Offer information about asthma.
 - Parents need to communicate with the teacher/provider about ongoing asthma flare-ups (e.g. send note about child having a cold virus so needs to take quick-relief med. at lunchtime).
2. **School /Childcare Management Plan or Written Asthma Action Plan**
 - Give a copy of the action plan or school management plan and medication to the teacher and/or health room staff.
 - Consider an indoor recess plan for ozone action days, colds, and severe cold weather days. Discuss school-related triggers such as chalk dust, old carpets, and strong smells.
3. **Keep quick relief medication with spacer at school and at the childcare provider.**
 - Wisconsin State law allows a child to carry their quick relief inhaler with them in school. Physician and parent authorization is required. (A copy of the law is included in this packet.)
 - If a child needs to pre-treat before gym class, discuss school layout and options.
 - Spacers improve absorption of medication. Staff administering medication may not be proficient in coaching good inhaler technique, especially without a spacer.
4. **Consider keeping a peak flow meter at school:**
 - Peak flow meters at school can be helpful to parents in monitoring asthma flare-ups from home or work.
 - Peak flow meters provide an objective measure of airflow, and when combined with symptom identification, can offer the child, school staff, and parent (usually over the phone) more information to make treatment decisions.
 - Peak flow meters at school can help parents determine when they need to pick up their child from school and when the child can go back to class.
5. **What to do if the teacher or childcare provider does not believe asthma or a trigger is a problem.**
 - Offer a letter or telephone call from the physician.

Source: NAEPP

School / Childcare Asthma Plan for _____

DAILY MANAGEMENT PLAN

Triggers:

- | | | | |
|---|---|--|--------------------------------------|
| <input type="checkbox"/> exercise | <input type="checkbox"/> chalk dust | <input type="checkbox"/> foods | <input type="checkbox"/> cockroaches |
| <input type="checkbox"/> colds & resp. infections | <input type="checkbox"/> animals | <input type="checkbox"/> strong odors of | <input type="checkbox"/> pollens |
| <input type="checkbox"/> change in temperature | <input type="checkbox"/> carpets in rooms | perfumes | <input type="checkbox"/> molds |
| <input type="checkbox"/> cold weather | <input type="checkbox"/> ozone days | <input type="checkbox"/> tobacco smoke | <input type="checkbox"/> dust mites |

Control of School Environment

- use quick-acting inhaler before gym class / exercise
Diet restrictions:

Daily Medication Plan

Name:	Amount:	When to Use:

ASTHMA FLARE UP PLAN

Early Asthma symptoms: itchy throat or chin, cough, headache, moodiness, runny or stuffy nose, sneezing, dark circles under eyes, trouble sleeping. Peak flow below _____ (yellow zone).

Late Asthma symptoms: tightness in chest, wheezing, hard to breathe, short of breath.

PLAN

See Attached Action Plan **Peak Flow Personal Best:** _____

1. Give medications

Name:	Amount:	When to Use:

2. Have student return to class if: _____
3. Contact parent if: _____
4. Seek emergency care (call 911) if:
- No improvement 15-20 minutes after initial treatment with medication and parent or relative can not be reached
 - Peak flow of _____ (red zone)
 - Trouble walking or talking
 - Stops playing and can't start activity again
 - Hard time breathing with:
 1. Chest and neck pulled in with breathing
 2. Child is hunched over
 3. Child is struggling to breathe
 - Lips or fingernails are gray or blue

Comments:

Rescue Inhaler:

may be carried by the student and used independently. should **not** be carried by the student & used independently.

Parent : _____ Physician: _____ Date: _____

Phone: _____ Phone: _____



1997 Assembly Bill 783

Date of enactment: **April 13, 1998**Date of publication*: **April 27, 1998**

1997 Wisconsin Act 77

An Act to amend 119.04 (1); and to create 118.291 of the statutes; relating to: allowing pupils to possess and use metered dose and dry powder inhalers.

The people of the state of Wisconsin, represented in senate and assembly, do enact as follows:

Section 1. 118.291 of the statutes is created to read:
118.291 Asthmatic pupils; possession and use of inhalers. (1) While in school, at a school-sponsored activity or under the supervision of a school authority, an asthmatic pupil may possess and use a metered dose inhaler or dry powder inhaler if all of the following are true:

(a) The pupil uses the inhaler before exercise to prevent the onset of asthmatic symptoms or uses the inhaler to alleviate asthmatic symptoms.

(b) The pupil has the written approval of the pupil's physician and, if the pupil is a minor, the written approval of the pupil's parent or guardian.

(c) The pupil has provided the school principal with a copy of the approval or approvals under par. (b).

(2) No school district, school board or school district employe is civilly liable for damage to a pupil caused by a school district employe who prohibits a

pupil from using an inhaler because of the employee's good faith belief that the requirements of sub. (1) had not been satisfied or who allows a pupil to use an inhaler because of the employee's good faith belief that the requirements of sub. (1) had been satisfied.

Section 2. 119.04 (1) of the statutes, as affected by 1997 Wisconsin Act 27, is amended to read:

119.04 (1) Subchapters IV, V and TII of ch. 115, ch. 121 and ss. 66.03 (3) (c), 115.01 (1) and (2), 115.28, 115.31, 115.33, 115.34, 115.343, 115.345, 115.361, 115.37 (2), 115.40, 115.45, 118.001 to 118.04, 118.06, 118.07, 118.10, 118.12, 118.125 to 118.14, 118.145 (4), 118.15, 118.153, 118.16, 118.162, 118.163, 118.18, 118.19, 118.20, 118.24 (1), (2) (c) to (f), (6) and (8), 118.245, 118.255, 118.258, 118.291, 118.30 to 118.43, 118.51, 118.52, 118.55, 120.12 (5) and (15) to (24), 120.125, 120.13 (1), (2) (b) to (g), (3), (14), (17) to (19), (26), (34) and (35) and 120.14 are applicable to a 1st class city school district and board.

Section 3. Effective date.

(1) This act takes effect on September 1, 1999.

* Section 991.11, Wisconsin Statutes 1995-96: Effective date of acts. "Every act and every portion of an act enacted by the legislature over the governor's partial veto which does not expressly prescribe the time when it takes effect shall take effect on the day after its date of publication as designated: by the secretary of state [the date of publication may not be more than 10 working days after the date of enactment]."

Office Tools

Overview of Office Tools

1. Living with Asthma Questionnaire

- 1-page questionnaire completed by parent/caregiver prior to visit (in waiting room) or by office staff when rooming patient
- Used to assess asthma symptoms, severity classification, and self care practices.
- May be reviewed and filed in chart, or incorporated into office note.
- As an Outcome Measurement Tool: May be sent to FAM Allies Evaluation Office for confidential aggregate feedback reports. For more information contact FAM Allies Coalition Director John Meurer, MD at 414-456-4116.

2. Asthma visit flow sheet

- Optional written documentation tool for asthma visits and chart documentation.

3. Office Care flow process example

- Potential office flow process to adapt to specifics of office

4. Asthma Skills Flow Sheet - teaching plan

- Documentation tool for tracking asthma education by physician, nurse or trained clinical office staff
- Contains expected outcomes, teaching interventions, materials given, and learning assessment.

5. Patient Medication Assistance Programs

- **Prescription Drug Assistance Program** of the Pharmaceutical Research and Manufacturers of America (PhRMA). Link to manufacturer's programs.
<http://www.phrma.org/patients.index.html>
- **NeedyMeds Program**
<http://www.Needymeds.com> (Web based information link to manufacturer's programs).

Date: _____ Living with Asthma Patient Name _____

Please complete this survey. Your answer will help us take **better care of your child with asthma**. If you need help, please ask a staff member.
Thank You!

1. My child is here today for:
- A planned visit (for well-child care, asthma follow-up, or a review of how my child is doing)
 - A "sick" visit for an asthma flare-up → If this is a "sick" visit, what triggered the flare-up?

Other reason for visit: _____

For questions 2 and 3, check one choice in each question describing your child's health in **the past 2 weeks**

2. In the past 2 weeks , my child has had DAYTIME coughing, wheezing or shortness of breath:
<input type="checkbox"/> Every day, all the time
<input type="checkbox"/> Every day, but not all the time
<input type="checkbox"/> More than 2 times a week, but not every day
<input type="checkbox"/> 2 times a week or less
<input type="checkbox"/> Never

3. In the past 2 weeks , my child has been bothered by NIGHTTIME coughing, wheezing or shortness of breath:
<input type="checkbox"/> Frequently / Every night
<input type="checkbox"/> More than once a week
<input type="checkbox"/> Once a week
<input type="checkbox"/> Once every 2 weeks or less
<input type="checkbox"/> Never

For Clinician Use Only:

Classify severity:

Before therapy is attained: by symptoms and objective measures;
After optimal therapy: by treatment needed to maintain control.

- Mild Intermittent
- Mild Persistent
- Moderate Persistent
- Severe Persistent

4. In the past **30 days**, has anyone, including yourself, smoked tobacco anywhere inside your home or a home your child frequently visits?
- No Yes Don't know / Not Sure

5. In the past **2 months**:
- I have** (or another caregiver has) missed days of school or work because of my child's asthma:
- No Yes → If "Yes," number of days missed _____ I don't go to school or work
- My child has** missed school or childcare because of asthma:
- No Yes → If "Yes," number of days missed _____ Child doesn't go to school or childcare

6. In the past **2 months**, I have done the following at home to reduce my child's symptoms (**check all that apply**):
- I changed smoking habits Special mattress or pillow covers Washed linens in hot water Other: _____
- Increased vacuuming Reduced pet exposure I haven't done anything _____

7. In the past **6 months**, my child has visited the following, **due to an asthma flare-up**:
- A physician's office or clinic No Yes → If "Yes," number of times: _____
- Emergency Room No Yes → If "Yes," number of times: _____
- Was hospitalized as an inpatient No Yes → If "Yes," number of times: _____

8. Do you agree that you feel confident about managing your own or your child's asthma?
- Strongly Agree Agree Neutral Disagree Strongly Disagree

9. For each type of asthma medicine, please **CIRCLE THE MEDICINE** and **CHECK** how often it is used by your child.

Asthma Medicine Group	Every Day	3 or more times in the past week	1 or 2 times in the past week	Did not use
Quick relief –albuterol (Proventil, Ventolin), Maxair, Xopenex				
Inhaled steroid –Flovent, Pulmicort, Advair, AeroBid, Azmacort, Beclovent, Vanceryl				
Singular, Accolate				
Cromolyn (Intal)				
Long acting "albuterol" - Serevent, Proventil Repetabs, Volmax				
Steroid by mouth --Prednisone, Prelone, Orapred, Pediapred, Decadron				

10. An asthma action plan is a written set of instructions about how to treat your child's asthma, with different treatments depending on how your child's asthma is doing. Do you have an **UP TO DATE** written copy of an asthma action plan for your child?
- No → If "No," you are done with the survey Not Sure → If "Not Sure," you are done with the survey.
- Yes → If "Yes," who has a copy of the plan? (**check all that apply**):
- I have a plan at home My child's childcare or school has a copy of the plan

Please return the survey to the office staff. Thank you very much for completing this survey!

Clinician Signature: _____ Date: _____

Source: Fight Asthma Milwaukee Allies, Adapted with permission from National Initiative for Children's Healthcare Quality, 3/03

Date						
Vital Signs	T__ P__ R__ BP__	T__ P__ R__ BP__	T__ P__ R__ BP__	T__ P__ R__ BP__	T__ P__ R__ BP__	T__ P__ R__ BP__
Symptoms a. Cough b. Tightness/SOB c. Wheeze d. Rhinitis e. Night-time asthma						
Current Asthma Medications (name, dose, freq)						
Home Peak Flow						
Personal Best						
Range (low, high)						
Current Zones (green, yellow, red)						
Spirometry • Peak Flow • FEV1 • Forced Vital Cap.	Actual	Predicted	Actual	Predicted	Actual	Predicted
Physical Exam	Normal	Abnormal	Normal	Abnormal	Normal	Abnormal
General:						
HEENT:						
Neck:						
Lungs:						
CV:						
Medication Changes (review, demo, side effects)						
Influenza Vaccine						
Education						
Peak Flow Technique						
Inhaler Technique						
Written Action Plan						
Triggers / Allergens						
Smoking						
Referrals (educator or allergist)						
Follow Up						
Signature						

Name: _____

Date of Birth: _____

Chart ID: _____

Revised 01/2002



Clinic Processes to Support Asthma Care in Provider Offices

<p>Selecting patients</p>	<p>Patients with asthma:</p> <ol style="list-style-type: none"> 1. Asthma follow up visit 2. Acute asthma visit 3. Upper Respiratory Infection visit (optional) 4. Periodic Preventive Health visit
<p>Prepping the chart</p> <p>Who:</p>	<p>Place on front of the chart:</p> <ol style="list-style-type: none"> 1. Written Asthma Action Plan 2. Trigger Control Plan
<p>Rooming the patient</p> <p>Who:</p>	<ol style="list-style-type: none"> 1. Do peak flow reading for patients age 5 and older. 2. Give asthma questionnaire to parent/patient to complete PRIOR to doctor's evaluation. 3. Ask & document smoking status / routine exposure to second hand smoke.
<p>Easy access</p>	<p>Action Plans</p> <p>Asthma Education Packets – prepare patient education materials into packets in advance and stock in or near exam rooms.</p> <p>Referral Info on Local Asthma Education Programs and Smoking Cessation Programs</p>

The staff member to be responsible for each item should be determined based on patient flow in the clinic and staff roles.

Chronic Asthma Management Supplies to stock in clinic:

- **Action Plans & Diaries**
- **Spacers**
- **Peak flow meters**
- **Patient Education materials**
 1. What is asthma
 2. Asthma Trigger Control Plan
 3. How to use your Inhaler: MDI (Metered Dose Inhaler) or PDI (Powdered Dry Inhaler)
 4. How to use a Nebulizer
 5. How to use your Peak Flow Meter
 6. School / Childcare Management of Asthma
 7. Asthma Resources
 8. Smoking & Asthma
 9. Inhaled Steroids information
 10. Others to consider: Smoking Cessation programs, medication information, Teacher memo, flyers for asthma education programs

Source: Adapted from Covenant Medical Group

Topic/Outcome	Topic Taught (Date/Initials)	Skills Reinforced (Date/Initials)	Outcome Criteria Met (States/Demonstrates): Comments:
1. What is asthma a. States characteristics <ul style="list-style-type: none"> • Chronic (long-term) • Airway swelling and muscle tightening • Caused by triggers (many things) 	<input type="checkbox"/> Asthma Flyer given		
b. Common symptoms of an asthma flare-up <ul style="list-style-type: none"> • Cough • Wheeze • Retractions • Increased respiratory rate 			
c. Early signs an asthma flare-up is starting: (many/different) <ul style="list-style-type: none"> • Drop in peak flow • Cough, wheeze, tight chest • Tired, itchy, watery eyes, restless • Cold or flu 	<input type="checkbox"/> Asthma Diary given		
d. Verbalizes own early warning signs. Brings in asthma diary.			
2. Why Asthma Happens: Triggers and Control a. Defines trigger as "Something that can make asthma worse"	<input type="checkbox"/> Trigger Sheet given		
b. Able to identify personal triggers			
c. Describes ways to avoid/control triggers			
3. Peak Flow Meter a. Demonstrates/describes correct use and cleaning	<input type="checkbox"/> PF Meter Sheet given		
b. States benefits of PF Meter <ul style="list-style-type: none"> • Measures how well you are breathing • Helps your doctor know how to help you • Helps you know a flare-up is starting before you feel it 			
c. Correctly records PF on diary or tracking form			
d. Accurately records personal best (best of 3)			
e. States/demonstrates when & how often to use <ul style="list-style-type: none"> • AM/PM every day • At the beginning of a flare-up • After taking quick relief medication 			
4. Asthma Care Plan a. Accurately describes purpose of care plan <ul style="list-style-type: none"> • Tells how to take medication and what to do for your asthma: <ul style="list-style-type: none"> • Every day when you are doing well (green zone) • When asthma is getting worse (yellow zone) • When asthma becomes an Emergency (red zone) 	<input type="checkbox"/> Sample Action Plan reviewed		
b. Asthma Care Plan completed by medical provider			
c. Accurately describes how to use personal Asthma Care Plan			
5. Knowledge of Asthma Medication and Equipment a. Names and describes the two types of asthma medication: <ul style="list-style-type: none"> • Long-Term Control: Prevents/reduces swelling. Symptoms of asthma are gone or reduced. • Quick Relief: Relaxes airway muscles during an asthma flare-up 			
b. Can name personal meds and describe proper use: <ul style="list-style-type: none"> • Quick relief: Use during an attack or when asthma gets worse, to relax airway muscles • Control: Use as directed; usually every day. Keeps asthma flare-up away and makes symptoms less. 	<input type="checkbox"/> Med Sheet given		
c. Able to describe personal med. dose, route, frequency			
d. Demonstrates correct use & cleaning of Inhaler	<input type="checkbox"/> Inhaler sheet given		
e. Demonstrates correct use & cleaning of Nebulizer	<input type="checkbox"/> Neb sheet given		
f. Able to state how to assess amount of medication left in MDI			
6. Follow up with provider			

Revised 02/2002



Patient Name: _____

DOB: _____ MR#: _____

Asthma Tool Kit

Patient Medication Assistance Programs

- Programs for patients who do not have other means to obtain necessary medications.
- Application process usually requires phone calls and completion of forms by providers.
- Most programs require patients to submit previous tax returns to verify need.

A. Prescription Drug Assistance Program

- Sponsored by the Pharmaceutical Research and Manufacturers of America (PhRMA)
- Web based access at: <http://www.phrma.org/pap>
- Phone based access by drug company

Company	Medication(s)	800 Number
GlaxoSmithKline	Beclovent, Flovent, Advair, Serevent	800-722-9294
Merck & Co., Inc.	Singulair	800-994-2111
Rhone-Poulenc-Rorer Inc.	Azmacort, Intal, Slo-Bid, Slo-Phyllin, Tilade	800-340-7502
Schering Key Pharmaceuticals	Proventil, Theo-Dur, Uni-Dur, Vanceril	800-656-9485
3M Pharmaceuticals	Maxair, Theolair	800-328-0255
AstraZeneca Pharmaceuticals	Accolate	800-424-3727

B. NeedyMeds.com

- Web based program to link to drug manufacturers programs
- Web access at: <http://www.Needymeds.com> (hard copy available for order)
- See Web site for most accurate contact information (accurate as of Jan. 2002)

Medication	Company	Telephone No.
Accolate	AstraZeneca Pharmeceuticals	800-424-3727
Advair	GlaxoSmithKline	800-722-9294
Aerobid	Forest Pharmaceuticals	800-851-0758
Albuterol	Wyeth-Ayerst Laboratories	800-395-9938
Azmacort	Rhone-Poulenc Rorer, Inc.	800-340-7502
Beclovent	GlaxoSmithKline	800-722-9294
Flovent	GlaxoSmithKline	800-722-9294
Intal Inhaler	Fisons Pharmaceutical	610-454-8110
Intal Inhaler	Rhone-Poulenc Rorer, Inc.	800-340-7502
Maxair	3M Pharmaceuticals	800-328-0255
Proventil	Schering Labs/Key	800-656-9485
Pulmocort Turbuhaler	Astra AstraZeneca LP Inc.	800-236-9933
Quibron	Monarch Pharmaceuticals	800-776-3637
Serevent	GlaxoSmithKline	800-722-9294
Singulair	Merck & Company	800-994-2111
Slo-Bid	Rhone-Poulenc Rorer, Inc.	800-340-7502
Slo-Phyllin	Rhone-Poulenc Rorer, Inc.	800-340-7502
Theochron	Forest Pharmaceuticals, Inc.	800-851-0758
Theo-Dur ER Tabs	Key Pharmaceuticals	800-656-9485
Theolair SR	3M Pharmaceuticals	800-328-0255
Theolair Tablets	3M Pharmaceuticals	800-328-0255
Theo-24	UCB Pharmaceuticals, Inc.	800-477-7877
Tilade Inhaler	Fisons Pharmaceutical	610-454-8110
Tilade Inhaler	Rhone-Poulenc Rorer, Inc.	800-340-7502
Uni-Dur ER Tablets	Key Pharmaceuticals	800-656-9485
Vanceril	Schering Labs/Key	800-656-9485
Volmax	Muro Pharmaceutical, Inc.	800-225-0974 option 3

Source: State Medical Society of Wisconsin Asthma Tool kit



Asthma

Resources

Asthma Resources for Providers

Allergy and Asthma Network - Mother's of Asthmatics, Inc.

<http://www.aanma.org> 1-800-878-4403

- Non profit, membership organization. Patient education, support, and news

American Academy of Allergy, Asthma and Immunology

<http://www.aaaai.org> (select patient/public resource center) 1-800-822-2762

- Diagnosis, treatment, support organizations, resources, asthma in the news, section for kids

American College of Chest Physicians

<http://www.chestnet.org> 1-847-498-8370

- Provides Cue's, products, publications clinical practice guidelines and representation in government public affairs

Asthma and Allergy Foundation of America

<http://www.aafa.org> 1-800-727-8462

- Education, advocacy and research including "Ask the Allergist", support groups and resources for patients and providers

American Academy of Pediatrics

<http://www.aap.org>

- Topics include advocacy, you and your family, publications, and services

American College of Allergy, Asthma, and Immunology

<http://allergy.mcq.edu> 1-800-586-4872

- Information and news service for patients, parents of patients, purchasers of group health care programs and the news media

American Lung Association

<http://www.lungusa.org> 1-800-586-4872

- Basic information, fact sheets, summer camps listing, training, advocacy, and research activities

American Medical Association Asthma Information Center

<http://www.ama-assn.org/special/asthma/asthma.htm>

- Patient education, support groups, treatment center, news, links to additional AMA recommended sites

Asthma and Allergy Foundation of America

<http://www.aaafa.org> 1-800-727-8462

- Education, advocacy and research, "Ask the Allergist", support groups and resources

Asthma Clinical Research Network (ACRN)

<http://www.nhibi.nih.gov> (Select New & Special Items)

- Clinical trials for evaluation of new and existing therapeutic approaches, links to asthma sites

Doctor's Guide to the Internet - Asthma

<http://www.pslqgroup.com/asthma.htm>

- Current medical news, discussion groups, for providers and patients

e-Asthma

<http://www.e-asthma.com>

- Quality of life, goals of asthma management, self-education and partnership with clinician.

The National Asthma Education & Prevention Program (NAEPP) of the National Heart, Lung, and Blood Institute (NHLBI)

<http://www.nhibi.nih.gov/health/public/lung/asthma/friendhi.htm>

- Publications, facts and stats on asthma. Asthma tools

National Heart, Lung, Blood Institute: Asthma Management Model System

<http://www.nhlbisupport.com/asthma/index.html>

- Links for research, education for patients and providers, chat rooms, on-line forums

National Jewish Medical & Research Center

<http://www.njc.org> 1-303-388-4461

- Lung-Line 1-800-222-Lung (talk with nurse and request printed information)
- Resource for physicians and families

SchoolAsthmaAllergy.com

<http://www.schoolasthmaallergy.com>

- Provides current and useful tools and information to empower today's school nurse as she/he manages the student with asthma and allergies at school. Includes Respiratory Guidelines and Programs and a Teaching Toolkit

Source: NICHQ



Local Asthma Patient Education Resources

A variety of programs are offered including group classes and one-to-one instruction. Some are free. Others require a physician order and charge a fee. Dates, times, and locations will vary.

Organization	Call for Information at:
Aurora Asthma Schools	1-877-728-7672
Children's Health Education Center	414-765-9355
Children's Hospital of Wisconsin	414-266-2729
Community Memorial Hospital (for age 6 and older)	262-257-3480
CompcareBlue Asthma Education Program (for Compcare commercial members only)	1-888-785-8900
Disease Management Consultants	262-687-2150 or 262-687-8199
Fight Asthma Milwaukee Allies	414-390-2179
Gentiva Health Services	414-257-1156
Home Care Medical	262-786-9870 ext.540
Sixteenth Street Community Health Center	414-672-1315 x382
St. Joseph Medical Center Asthma Clinic	414-447-2241
St. Michael Hospital Asthma Education Center	414-527-8400

Local Tobacco Cessation Programs

Organization	Call for Information at:
<p>Nicotine Anonymous</p>	<p>Contact person: Alan Email: nicotine-anonymous.org Phone: (414) 871-9992 Ongoing every Thursday at 7pm at St Paul's Episcopal Church 914 E. Knapp</p>
<p>Smoking Cessation Clinic Medical College of WI</p>	<p>Contact person: Laura Eparvier Phone: (414) 456-8933 Cost: \$20 per session, 6-8 sessions; sliding scale Location: 1000 N. 92nd Street</p>
<p>Freedom From Smoking</p>	<p>Contact: Jessica Thieleke Phone: (262) 703-4200 8 sessions, cost varies. Call for location.</p>
<p>No Butts About It</p>	<p>Contact: Jenny Phone: (414) 527-8557 Free. Family Care Center St Michael Hospital 2400 W. Villard</p>
<p>Wisconsin Tobacco Quit Line</p>	<p>Phone: 1-877-270-7867 (toll free) Espanol: 1-877-266-3863 Hours: Mon – Thurs 9am-8pm, Friday 9am – 5pm, Saturday 9am – 1pm</p>

Asthma Resources for Parents

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<http://www.aanma.org>
1-800-878-4403

- Non profit, membership organization. Patient education, support, and news

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- Diagnosis, treatment, support organizations, resources, asthma in the news, section for kids

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1-800-727-8462

- Education, advocacy and research including “Ask the Allergist”, support groups and resources for patients and providers

American Academy of Pediatrics

<http://www.aap.org>

- Topics include advocacy, you and your family, publications, and services

American College of Allergy, Asthma, and Immunology

<http://allergy.mcg.edu>
1-800-586-4872

- Information and news service for patients, parents of patients, purchasers of group health care programs and the news media

American Lung Association

<http://www.lungusa.org>
1-800-586-4872

- Basic information, fact sheets, summer camps listing, training, advocacy, and research activities

American Medical Association Asthma Information Center

<http://www.ama-assn.org/special/asthma/asthma.htm>

- Patient education, support groups, treatment center, news, links to additional AMA recommended sites

Asthma and Allergy Foundation of America

<http://www.aaafa.org>
1-800-727-8462

- Education, advocacy and research, “Ask the Allergist”, support groups and resources

Doctor’s Guide to the Internet – Asthma

<http://www.pslgroup.com/asthma.htm>

- Current medical news, discussion groups, for providers and patients

e-Asthma

<http://www.e-asthma.com>

- Quality of life, goals of asthma management, self-education and partnership with clinician.

The Foundation for Better Health Care-Asthma Care Profile

<http://fbhc.org/modules/asthma.cfm>

- Comprehensive overview, geared toward patients, frequently asked questions, and additional links

The National Asthma Education and Prevention Program (NAEPP) of the National Heart, Lung, and Blood Institute (NHLBI)

<http://www.nhlbi.nih.gov/health/public/lung/asthma/friendhi.htm>

- Publications, facts and stats on asthma
- Asthma tools

National Heart, Lung, Blood Institute: Asthma Management Model System

<http://www.nhlbisupport.com/asthma/index.html>

- Links for research, education for patients and providers, chat rooms, on-line forums

National Jewish Medical & Research Center

<http://www.njc.org>
1-800-222-LUNG

- Includes a personal interactive diary to help track asthma symptoms, medicines and quality of life; graphs that show progress & relationship of symptoms, medicines & quality of life; learning center
- Spanish text available

SchoolAsthmaAllergy.com

<http://schoolasthmaallergy.com>

- Provides current and useful tools and information to empower today’s school nurse as she/he manages the student with asthma and allergies at school. Includes Respiratory Guidelines and Programs and a Teaching Toolkit

Source: NICHQ



FAM Allies works together with children and families connecting them to caring people, reducing hospital stays, and supporting healthy lives.

Questions? Call (414) 390-2179

Los Derechos y Responsabilidades del Paciente de Asma

Sus Derechos	Sus Responsabilidades
1. Tener su asma bajo control: <ul style="list-style-type: none"> • No tener síntomas crónicos ni problemáticos, como la <u>tos</u>, o <u>falta de aire</u> ni de noche, temprano en la mañana, o después de hacer ejercicio. • Hacer actividades normales (Incluyendo ejercicios y otras actividades físicas) • Tener mínimas irritaciones del asma y que no tenga ninguna necesidad de ir al hospital. • Usar las mejores medicinas recetadas a dosis bajas sin efectos secundarios. • Mantener la función pulmonar al nivel más normal posible. • Estar satisfecho con su cuidado del asma. 2. Aprender como manejar su asma para mantenerlo bajo control.	1. Tomar sus medicamentos y evitar los causantes. 2. Mantenerse en su plan de acción. 3. No dejar de tomar su medicamento hasta que su medico se lo indique. 4. No dejar que se le terminen sus medicinas. 5. Traer consigo sus medicinas cuando vaya al doctor o al hospital. 6. Asistir con regularidad a sus determinadas visitas de asma. 7. Consultar con su doctor cuando está teniendo síntomas de asma con frecuencia o cuando su asma no está bajo control. 8. Visitar a su doctor a más tardar 2 días después de haber estado en la sala de emergencia o hospitalizado(a), AUN CUANDO USTED SE SIENTE BIEN.

La Responsabilidad de su Doctor

1. Clasificar la severidad de su asma en cada consulta relacionada con el asma (ligero, moderado, severo)
2. Repasar con usted sus medicamentos y su plan escrito de acción de asma en cada consulta de asma.
3. Enseñarle a usted como usar el inhalador.
4. Ayudarle a entender como controlar las cosas que empeoran su asma (causantes)
5. Hacerle el examen del nivel de flujo máximo o el examen espirométrico.
6. Preguntarle sobre sus síntomas mas recientes.
7. Repasar con usted lo que tiene que hacer si le da el asma en la escuela o en el trabajo.
8. Repasar con usted lo que tiene que hacer si le dan los síntomas del asma cuando la oficina del doctor está cerrada.

Una Lista de lo Necesario Cuando Vaya a Consultar con el Doctor:

1. Siempre traiga consigo a las consultas con su doctor:
 - TODAS sus medicinas, incluyendo los remedios caseros, o las medicinas adquiridas sin receta.
 - Medidor de Máximo Flujo
 - Diario de Asma
 - El Espaciador (Equipo del Asma)
2. Mencione a su doctor inmediatamente si por causa del asma usted ha:
 - Faltado a la escuela o al trabajo
 - Tenido síntomas, incluyendo el despertar durante la noche por causa de la tos
 - Ido a la sala de emergencia
 - Estado hospitalizado(a)
3. Algunas Otras Preguntas:
 - ¿Puedo obtener 2 recetas para inhaladores y espaciadores, uno para la escuela / centro de cuidado de niños?
 - ¿Su hijo necesita un permiso del doctor para cargar su inhalador en su escuela / centro de cuidado de niños?
 - ¿Necesita usted un nuevo plan de acción del asma? ¿Copias?



FAM Allies trabaja junto con familias y niños, poniéndolos en contacto con gente que ayuda, reduciendo las estancias en los hospitales, y apoyando las vidas saludables. ¿Preguntas? Llame al (414) 390-2179!



Asma, Asma

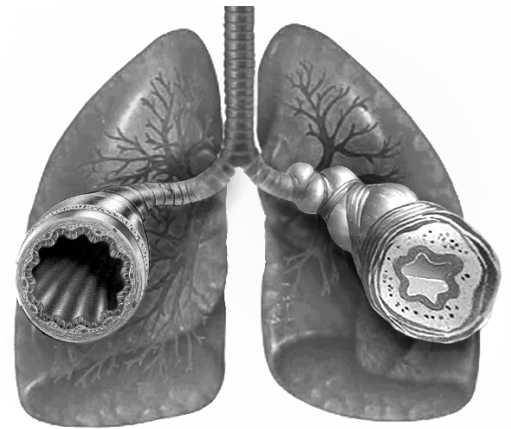
¡Lea todo sobre el Asma!

Volumen 1

¿Qué es el asma?

El asma es una enfermedad crónica de los pulmones que puede ser un peligro para su vida si no es tratada y bien controlada. La causa básica del asma es desconocida, pero hay cosas o causantes que hacen que empeore.

Con la ayuda de su doctor, usted puede controlar su asma y vivir mayormente sin síntomas. Su asma **NO** se le quita cuando sus síntomas desaparecen.



Durante un ataque de asma el forro de las vías aéreas se hincha. Esto causa repetición de ataques. Se produce una mucosidad gruesa y los músculos que rodean las vías aéreas se aprietan, haciendo que el espacio dentro sea reducido (obstrucción).

¡Necesita continuar cuidando su asma!

En esta edición:

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Medicinas del Asma	2
Diario de Asma /Plan de Acción para el Asma	3
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Metas para el Control del Asma

- No tener síntomas de asma durante el día y la noche, incluyendo tos. Dormir toda la noche
- La mejor función pulmonar posible
- No estar ausente de la escuela o del trabajo
- No visitar el hospital o la sala de emergencia por razones de asma
- Sentir menos efectos secundarios a causa de las medicinas
- Sentirse satisfecho con su cuidado del asma

Los Síntomas del Asma

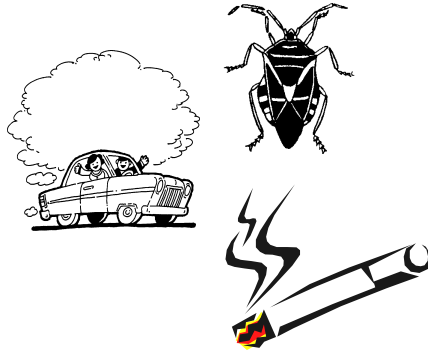
"No todos los síntomas de todos son iguales"

- Tos - suele suceder durante la noche o después de hacer ejercicio
- Los pillidos de respiración - no toda la gente que tiene asma tiene este síntoma
- Falta de Aire al Respirar
- Sensación de Restricción en el Pecho
- Inhabilidad de hacer actividades físicas Normales(ejercicio, deportes)
- Despertar de noche (con síntomas de asma)

¡Atienda todos sus síntomas inmediatamente para evitar un ataque de asma!

Los Problemas y Los Causantes

La gente que sufre de asma suele tener vías aéreas muy sensibles. Ciertas cosas, "causantes", provocan ataques de asma. La gente que tiene asma



suele reaccionar fuertemente con estos causantes. Diferentes personas tienen diferentes causantes.

Algunos Causantes Incluyen:

- Humo de cigarro o puro
- Animales
- Cucarachas / insectos
- Animalitos del polvo
- Contaminación del aire
- Olores Fuertes / perfumes
- Resfriados / Influenza o infección de las vías aéreas
- Moho / Polen

- Cambios de clima o en temperatura
- Ejercicio

**Conozca sus causantes
Diferentes personas tienen
diferentes causantes
¿Cuales son sus causantes?**

¡Evite sus causantes!

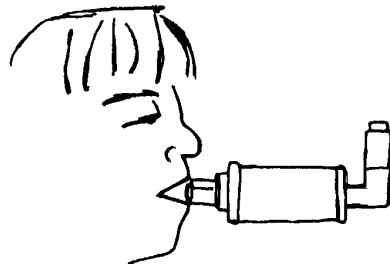
- Evite los causantes que pueda.
- Tenga un plan de asma para los causantes que **NO** puede evitar.

Medicinas del Asma

Medicinas de Control A

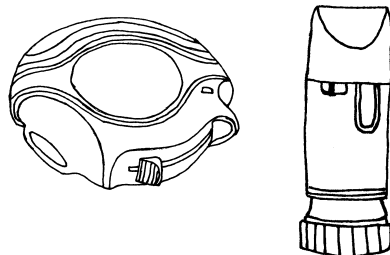
Largo Plazo:

Trabajan a través de los días y lentamente para prevenir la inflamación y la mucosidad de las vías aéreas. Es necesario tomar la medicina todos los días aun cuando se siente bien, para que esta empiece a funcionar.



Medicinas de Alivio Rápido:

Ayudan a suspender un ataque que haya empezado. Trabaja rápido para relajar los músculos que rodean las vías aéreas, para así facilitar a respiración.



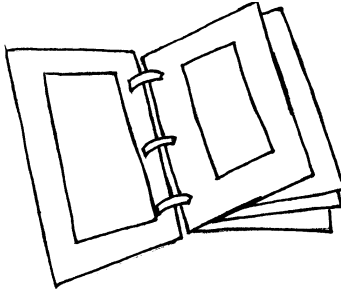
Si usted usa la medicina de alivio rápido 2 veces o más por semana de día, o al despertar de noche 2 veces o más por mes:

¡Su asma no está bajo control!

Consulte con su Medico

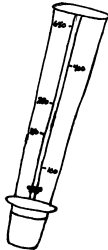
¿Que es un diario de asma?

Un **Diario del asma** es un registro que le ayuda a estar al tanto de sus síntomas del asma, como está tomando sus medicinas, sus medidas máximas de flujo, y los causantes que se le han presentado. Este diario lo pueden usar usted y su doctor para controlar su asma a medida que pasa el tiempo.



¡Trabaje con se doctor para crear un plan de acción del asma para usted!
Asegúrese de compartir su plan con la escuela, deportes, entrenadores, y su familia

Medidor Máximo de Flujo - Su doctor o enfermera le puede ayudar a usar su Medidor Máximo de Flujo. Esto le ayudará a checar la función de sus pulmones. Puede avisarle cuando se le está alterando el asma antes de que sienta cualquier síntoma.



Un Plan de Cuidado del Asma

Un plan de cuidado del asma, creado por usted y su doctor, es un plan escrito para ayudar a cuidar el asma que incluye el nombre de sus medicinas, cuanto y cuando tomarlas.

Zona	Acción
Verde	
Ambar	
Rojo	

Compártelo con escuelas/guarderías para que puedan manejar un ataque
El asma que no esta bajo control puede dañar sus pulmones permanentemente. ¡Deje de dañar sus pulmones, controlando su asma!

Como cuidar de su asma

- Trabaje junto con su doctor y visítelo(a) al menos cada 6 meses
- Tome sus medicinas tal y como fueron recetadas
- Continúe tomando medicamentos de alivio a largo plazo aun cuando se siente bien
- Cuide de avisos de que su asma está empeorando y actúe rápidamente
- De tratamiento temprano a sus síntomas. Faltando los signos pone la vida en peligro.
- Identifique y evite los causantes de su asma
- Siga su plan de acción del asma



Fight Asthma
Milwaukee Allies
(FAM Allies)
1533 North RiverCenter Dr.
Milwaukee, WI 53212

Teléfono: 414-390-2179
Fax: 414-765-0996

Correo electrónico: elee@chw.org

FAM Allies trabaja
junto con familias y
niños, poniéndolos en
contacto con gente que
ayuda, reduciendo las
estancias en los
hospitales, y apoyando
las vidas saludables.

Recursos Locales:

- Su Médico General
- Fight Asthma Milwaukee Allies
(414) 390-2179
- American Lung Association of
Wisconsin
1-800-LUNG-USA

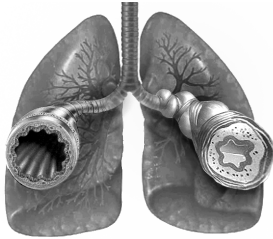
Recursos Nacionales:

- Allergy and Asthma Network -
Mothers of Asthmatics, Inc.
www.aanma.org 1-800-878-4403
- National Jewish Medical and
Research Center
<http://www.njc.org> 1-800-222-LUNG
- American Lung Association
www.lungusa.org 1-800-586-4872

De Niño-a-Niño

Hablando del Asma

Por Lauren (11 años) y Gabrielle (8 años)



El asma es algo así como alergias por dentro. Cuando te acercas a los causantes (animalitos del polvo, humo, polen, frió) tus pulmones reaccionan. Entonces, los tubos dentro de tus pulmones se hacen **chiquitos** (se aprietan) y **mocos** (mocos líquidos) se meten dentro y hacen que batalles para respirar. Hace que no puedas sacar el aire hacia afuera. Si no puedes sacar el aire hacia fuera entonces no puedes meter mas aire, porque no hay espacio en tus pulmones.

La medicina de alivio rápido de tu inhalador (Yo uso albuterol) es como una medicina para la alergia. Hace que los tubos dentro de tus pulmones se habrán para que puedas sacar el aire y puedas respirar bien otra vez.



La medicina controladora ayuda a evitar la restricción en el pecho y evita que se forme el moco. Hace que tengas menos ataques y no tan fuertes.

Hay diferentes clases de "malos" ataques de asma. Si paras el ataque con el inhalador de alivio rápido cuando acaba de empezar, se te quita bien rápido. Si el ataque se pone muy malo, vas a necesitar un tratamiento del nebulizador (vapor para la respiración) o ver al doctor. Si te pones muy mal vas a necesitar irte a la sala de emergencia del hospital.

La mejor manera de controlar tu asma es usando tu medicina controladora todos los días (aunque te sientas bien).

Trata de alejarte de los causantes:

- Aléjate del humo
- Usa fundas especiales para alejar a los animalitos del polvo
- Usa tu inhalador de alivio rápido antes de los deportes o la clase de educación física
- Fíjate que es lo que te hace que te de ataques y trata de alejarte de eso o has que se retire por completo.



Llévate tu inhalador de alivio rápido siempre para que lo tengas a la mano cuando lo necesites. Si empiezas a tener síntomas de asma como tos en la mañana, restricción en el pecho, picazón en la garganta, usa tu inhalador de alivio rápido inmediatamente.

¡No esperes a que te pongas muy mal!

Si tu tienes asma, eso no quiere decir que no puedes hacer todas las cosas que otros niños hacen. Tu puedes hacer deportes, karate, gimnasia, natación, correr, jugar fútbol, o básquetbol, y divertirte. ¡Hasta puedes ganarte una medalla olímpica!



Solo necesitas tomar unas pocas precauciones para mantener tu asma bajo control.


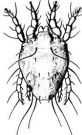


¡El que tu tengas asma no significa que no te puedes divertir!




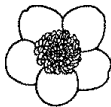



FAM Allies trabaja junto con familias y niños poniendolos en contacto con gente que ayuda, reduciendo las estancias en los hospitales, y apoyando las vidas saludables. ¿Preguntas? Llame al (414) 390-2179!

Plan Para Controlar Los Causantes Del Asma

Usted puede prevenir los ataques del asma manteniendo a su niño alejado de los causantes que empeoran su asma. Cada persona tiene diferentes causantes. Trabaje junto con el doctor de su niño para identificar y controlar sus causantes del asma. Al controlar los causantes, usted puede reducir la posibilidad de un ataque de asma y disminuye la necesidad de medicinas adicionales.

Causantes del Asma	Como Controlarlos
<p>Humo de Tabaco</p> 	<p><input type="checkbox"/> Si fuma, hable con su doctor para sugerencias de cómo puede dejar de fumar. Pida que otros miembros de su familia también dejen de fumar</p> <p><input type="checkbox"/> No permita que se fume dentro de la casa, en autos, o alrededor de su niño</p> <p><input type="checkbox"/> Mantenga su niño fuera de áreas donde hay mucho humo</p> <p><input type="checkbox"/> Asegúrese que nadie fuma en la guardería de su niño</p>
<p>Ácaros de Polvo – animalitos que no se ven; viven en la tela y en las alfombras</p> 	<p>Las cosas que más ayudan:</p> <p><input type="checkbox"/> Cubra los colchones y almohadas con cobertores especiales para controlar los ácaros</p> <p><input type="checkbox"/> Lave sábanas, mantas, y cubiertas cada semana en agua caliente (130°F)</p> <p>Otras cosas que ayudan:</p> <p><input type="checkbox"/> Reduzca la humedad dentro de la casa a menos de 50%</p> <p><input type="checkbox"/> Trate de no dormir o de acostarse encima de cojines o muebles que estan cubiertos de tela</p> <p><input type="checkbox"/> Quite alfombras del cuarto del niño o las que cubren los pisos de cemento</p> <p><input type="checkbox"/> Mantenga los muñecos de peluche fuera de la cama o lávelos en agua caliente (130°F) cada semana</p>
<p>Caspa de Animales – Los pedazos de piel o saliva secos que vienen de los animales peludos o emplumados</p> 	<p>Lo mejor que puede hacer:</p> <p><input type="checkbox"/> Mantenga a los animales peludos o emplumados fuera de la casa</p> <p>Si no puede mantener los animales afuera:</p> <p><input type="checkbox"/> No permita que el animal entre al cuarto del niño y cierre la puerta</p> <p><input type="checkbox"/> Cubra las ventilas del aire del cuarto de su niño con filtros de aire</p> <p><input type="checkbox"/> Saque las alfombras y muebles cubiertos de tela fuera de la casa. Si esto no es posible, no permita que el animal entre a los cuartos dónde están las alfombras y muebles.</p>
<p>Cucaracha – estiércoles secos y los restos de las cucarachas</p> 	<p><input type="checkbox"/> No permita que haya comida en los dormitorios</p> <p><input type="checkbox"/> Mantenga comida y basura en recipientes cerrados (nunca deje comida afuera)</p> <p><input type="checkbox"/> Use cebos venenosos, polvos, gelatinas, o pastas (por ejemplo, ácido bórico). También se pueden usar trampas</p> <p><input type="checkbox"/> Al usar líquido para matar cucarachas, mantenga al niño fuera del cuarto hasta que disminuya el olor</p>

Plan Para Controlar Los Causantes Del Asma Continuado

Causantes del Asma	Como Controlarlos
<p>Moho dentro de la casa</p> 	<p><input type="checkbox"/> Repare fugas de agua de los lavabos, pipas, u otras fuentes de agua</p> <p><input type="checkbox"/> Limpie paredes, o superficies con un limpiador que tenga cloro</p>
<p>Polen y Moho afuera – árboles, césped, hierba, o moho</p> 	<p>Que puede hacer durante la temporada de las alergias cuando el nivel de polen y moho está alto:</p> <p><input type="checkbox"/> Trate de mantener las ventanas cerradas</p> <p><input type="checkbox"/> Mantenga al niño dentro de la casa con las ventanas cerradas durante el medio día o la tarde, si es posible. Los niveles de algunas esporas de moho y polen están más altos en estos tiempos.</p> <p><input type="checkbox"/> Consulte con el doctor del niño si le tiene que dar o aumentar la medicina antiinflamatoria antes de que empiece su temporada de alergias.</p>
<p>Humo, Olores Fuertes</p> 	<p><input type="checkbox"/> Cuando sea posible, trate de no usar una estufa de leña, un calentón o calefacción de queroseno, o la chimenea (fogata)</p> <p><input type="checkbox"/> Trate de mantener al niño retirado de olores fuertes, spray como perfume, talco, spray del pelo y pinturas</p>
<p>Ejercicio, Deportes, Trabajo, o Juegos</p> 	<p><input type="checkbox"/> Su niño debería poder estar activo sin tener síntomas. Consulte con el doctor de su niño si tiene síntomas cuando hace actividades – como cuando hace ejercicio, deportes, cuando juega, o cuando se esfuerza trabajando</p> <p><input type="checkbox"/> Consulte con el doctor del niño sobre el tomar medicina antes de hacer ejercicio para evitar los síntomas</p> <p><input type="checkbox"/> Aconseje a su niño de calentar y estirar su cuerpo de 6 a 10 minutos antes de hacer ejercicio</p> <p><input type="checkbox"/> Trate de que su niño no trabaje o juegue afuera cuando la contaminación del aire o el nivel del polen (si este tiene alergia al polen) está alto.</p>
<p>Otras Cosas que Empeoran el Asma</p> 	<p><input type="checkbox"/> Influenza: Vacune a su niño en contra de la influenza</p> <p><input type="checkbox"/> El Sulfuro en la comida: No permita que su hijo beba cerveza o vino, o que coma camarones, frutas deshidratadas o las papas procesadas si le causan síntomas de asma</p> <p><input type="checkbox"/> El Aire Frió: Haga que su niño se cubra la boca y la nariz con un pañuelo o bufanda durante los días fríos y aiosos</p> <p><input type="checkbox"/> Otras medicinas: Informe al doctor de su niño de todas las medicinas que su niño esta tomando. Incluya las medicinas de resfriado, aspirinas, y hasta gotas para los ojos</p>

EL DEJAR DE FUMAR CUESTA MUCHO TRABAJO Y REQUIERE MUCHO ESFUERZO, PERO-

Usted Puede Dejar De Fumar

APOYO Y CONSEJO POR PARTE DEL PERSONAL CLÍNICO

UN PLAN PERSONAL DISEÑADO PARA: _____

¿QUIERE DEJAR DE FUMAR?

- La nicotina es una adicción muy fuerte.
- El dejar de fumar es muy difícil, pero no se deje vencer.
- Mucha gente intenta 2 o 3 veces antes de lograr dejar el hábito.
- Usted aumenta las posibilidades de dejar el hábito con cada intento que hace.

BUENAS RAZONES PARA DEJAR DE FUMAR

- Vivirá más años y más saludablemente.
- La gente que vive con usted, especialmente sus hijos vivirá más saludablemente.
- Usted tendrá más energía y se le facilitará más el respirar.
- Se reducirán las posibilidades de un ataque, una embolia, o cáncer.

CONSEJOS PARA AYUDARLE A DEJAR DE FUMAR

- Bote a la basura todos los cigarrillos y ceniceros de su casa, carro, y lugar de empleo.
- Pida el apoyo de su familia, amigos, y sus compañeros de trabajo.
- Manténgase en las áreas donde está prohibido fumar.
- Respire profundamente cuando sienta el deseo de fumar.
- Manténgase ocupado(a).
- Trate darse recompensas asimismo seguido.

DEJE DE FUMAR Y AHÓRRESE DINERO

- Si usted fuma una cajetilla por día a \$3.00 cada una, en un año se ahorra \$1,100 y en diez años se ahorra \$11,000.
- ¿Qué más podría hacer usted con este dinero?

CINCO CLAVES PARA DEJAR DE FUMAR	SU PLAN PERSONAL PARA DEJAR EL HABITO DE FUMAR:
1. PREPÁRESE. <ul style="list-style-type: none"> • Establezca una fecha para empezar y manténgase firme en ella-Ni una chupada de cigarro. • Piense en los intentos anteriores. ¿Qué le funcionó, Y que no? 	1. SU FECHA PARA EMPEZAR: <hr/> <hr/>
2. BUSQUE APOYO Y CONSEJO. <ul style="list-style-type: none"> • Dígale a su familia, amigos y compañeros de trabajo que está dejando el hábito. • Consulte con su médico o clínica. • Busque apoyo / consejo de grupo, individual o telefónico. 	2. ¿QUIÉN LE PUEDE AYUDAR? <hr/> <hr/>
3. APRENDA NUEVAS DESTREZAS Y NUEVOS HÁBITOS. <ul style="list-style-type: none"> • Cambie su rutina cuando recién empiece. • Disminuya el estrés. • Distráigase cuando siente el deseo de fumar. • En su plan diario, incluya alguna actividad que le gusta hacer. • Beba mucha agua u otros líquidos. 	3. DESTREZAS Y HABITOS QUE PUEDE USAR: <hr/> <hr/>
4. BUSQUE MEDICAMENTOS Y ÚSELOS CORRECTAMENTE. <ul style="list-style-type: none"> • Consulte con su médico o clínica sobre cuales medicamentos son más adecuados para usted. • Bupropion SR- requiere receta médica. • Chicle(goma) de Nicotina- sin receta. • Nicotina Inhalada- requiere receta médica. • Nicotina en Espray Nasal- requiere receta médica. • Nicotina en Parche- sin receta. 	4. SU PLAN DE MEDICAMENTO: MEDICAMENTOS: <hr/> INSTRUCCIONES: <hr/> <hr/>
5. PREPÁRESE PARA LAS RECAÍDAS O SITUACIONES DIFICILES. <ul style="list-style-type: none"> • Evite el alcohol. • Cuídese cuando este rodeado de otros fumadores. • Mejore su estado de ánimo de otras maneras que no incluyan el fumar. 	5. ¿CÓMO SE PREPARARA? <hr/> <hr/>

EL DEJAR DE FUMAR CUESTA MUCHO TRABAJO. PREPARESE PARA LOS RETOS, ESPECIALMENTE EN LAS PRIMERAS SEMANAS.

Plan de Chequeo:

Otra información:

Referido:

Personal Clínico

Fecha



COMO AYUDAR A LOS NIÑOS A EVITAR EL HUMO DE SEGUNDA MANO

- 1. Los padres y las personas que cuidan de niños no deberían fumar. El dejar de fumar es un bello regalo para su hijo.**
 - Esto mejorará grandemente el asma de su hijo y posiblemente reducirá el costo de la intervención necesaria. Es la acción principal que podrían hacer para mejorar el asma de su hijo.
 - La información sobre estrategias y programas de cómo dejar de fumar esta disponible en la línea telefónica QUIT LINE 1-877-270-STOP (7867)
 - Consulte a su médico sobre el dejar de fumar. El dejar de fumar es lo mejor que usted puede hacer para su salud.
- 2. Si los padres o las personas que cuidan de niños no puede dejar de fumar, entonces no fumen en las áreas donde los niños pasan la mayor parte de su tiempo o alrededor de su hijo.**
 - Fume afuera usando un abrigo especial para evitar que el humo penetre en su ropa, o evite fumar en casa.
 - Por lo más mínimo, fume en un cuarto donde el niño nunca entra.
 - No fume en el auto(aún cuando el niño no esta dentro) ya que el humo se penetra en los asientos.
- 3. Hable y aconseje a su hijo sobre la necesidad de evitar el humo del tabaco.**
 - Convénzalos de salirse de un cuarto cuando alguien está fumando.
 - Practique destrezas de auto-seguridad para pedirle a alguien que pare de fumar en su presencia o de pedir la asistencia de un adulto para que lo saque de esta situación.

Destrezas de Auto-Seguridad

1. Explique la situación-Solo los hechos: “El humo altera mi asma.”
2. Explique como se siente: “No puedo respirar bien y tengo miedo.”
No culpe a la otra persona por lo que usted está sintiendo.
3. Pida un cambio específico y pequeño: “Por favor deje de fumar cerca de mí.”
4. Explique como el cambio lo hará sentirse: “Esto hará que yo respire con más facilidad y me sienta mejor.”

MEDICAMENTOS PARA EL ASMA

Usted y su hijo deben conocer bien el nombre de cada medicamento del asma que su hijo está tomando. El asma varía mucho de una persona a otra, y pueda que las medicinas que le ayudan a una persona no le sirvan a otra. Use los medicamentos tal y como se los recetó su doctor, cantidad y método exacto. Siempre asegúrese de tener suficiente medicina a la mano.

MEDICAMENTOS DE ALIVIO RAPIDO			
Broncodilatadores			
Nombre / Marca	Nombre Genérico	Lo Que es Importante Saber	Algunos Efectos Secundarios
Proventil-HFA Ventolin	Albuterol	<ul style="list-style-type: none"> Relaja los músculos para abrir las vías aéreas Debe tomarse primero, si se están usando otros inhaladores al mismo tiempo 	<ul style="list-style-type: none"> Manos temblorosas, sensación de estar hiper-activo, latir de corazón rápido, dolor de cabeza
Alupent	Metaproterenol		<ul style="list-style-type: none"> Efectos secundarios usualmente duran un corto tiempo, y probablemente desaparecerán después de usar la medicina con regularidad
Maxair	Pirbuterol	<ul style="list-style-type: none"> Trate de esperar de 1 a 3 minutos entre soplos para darle tiempo al primer soplo de hacer efecto 	
Brethair Brethine	Terbutalina	<ul style="list-style-type: none"> Empieza a hacerle efecto a los 5 minutos, y dura de 4 a 6 horas 	<ul style="list-style-type: none"> Llame al doctor si los efectos secundarios le causan mucha molestia o persisten
Corticosteroides Bucales			
Nombre / Marca	Nombre Genérico	Lo Que es Importante Saber	Algunos Efectos Secundarios
Medrol	Methylpred-nisolone	<ul style="list-style-type: none"> Disminuye la hinchazón, inflamación, y la mucosidad en las vías aéreas Tómese exactamente como fue recetada por su doctor 	<ul style="list-style-type: none"> Aumento de apetito, dolor de estómago, cambio de estado de ánimo, retención de líquidos, enrojecimiento de la piel facial, puede causar dolor temporal de las coyunturas cuando cesa de usarlo.
Pediapred Prelone Others	Prednisolone		<ul style="list-style-type: none"> El uso prolongado puede causar algunos otros efectos secundarios; consulte a su doctor.
Various	Prednisone	<ul style="list-style-type: none"> Requiere de 6 a 12 horas para hacer efecto 	<ul style="list-style-type: none"> Tómese con comida o leche para evitar dolor de estómago.
MEDICAMENTOS DE CONTROL DE LARGO PLAZO			
Broncodilatadores de Control de Largo Plazo			
Nombre / Marca	Nombre Genérico	Lo Que es Importante Saber	Algunos Efectos Secundarios
Bucal Proventil Repetab Volmax	Albuterol	<ul style="list-style-type: none"> Relaja los músculos para abrir las vías aéreas Toma efecto en 1 hora, y dura de 9 a 12 horas 	<ul style="list-style-type: none"> Manos temblorosas, sensación de estar hiper-activo, latir de corazón rápido, dolor de cabeza Efectos secundarios usualmente duran un corto tiempo, y probablemente desaparecerán después de usar la medicina con regularidad
Inhalados Serevent	Salmeterol	<ul style="list-style-type: none"> Nunca se usa para aliviar los síntomas 	
Foradil Aerolizer	Formoterol	<ul style="list-style-type: none"> Formoterol trabaja rápido 	<ul style="list-style-type: none"> Llame al doctor si los efectos secundarios le causan mucha molestia o persisten
Broncodilatadores Bucales			
Nombre / Marca	Nombre Genérico	Lo Que es Importante Saber	Algunos Efectos Secundarios
Slobid TheoDur Uniphyll Otros	Teofilina	<ul style="list-style-type: none"> Relaja los músculos para abrir las vías aéreas Deben ser tomadas con regularidad todos los días Toma efecto de 4 a 6 horas y dura de 8 a 12 horas 	<ul style="list-style-type: none"> Nausea, vómito, estremecimiento, dificultad para dormir, se orina en la cama, cambios en comportamiento. Estos suelen ocurrir con altas dosis del medicamento. Llame al doctor si surgen efectos secundarios o si tiene fiebre arriba de 102°F.

MEDICAMENTOS PARA EL ASMA CONTINUADO

Otros Broncodilatadores Inhalados			
Nombre / Marca	Nombre Genérico	Lo Que es Importante Saber	Algunos Efectos Secundarios
Atrovent	Ipratropium	<ul style="list-style-type: none"> Aumenta la relajación de las vías aéreas cuando se usa con otras medicinas que también sirven para abrir las vías aéreas. 	<ul style="list-style-type: none"> Resequedad bucal, palpitar cardíaco acelerado y piel que se enrojece Tome mucha agua para el alivio de la resequedad de boca Llame a su doctor, si los efectos secundarios persisten
Varios	Atropine		
Medicamentos Inhalados Combinados			
Nombre / Marca	Nombre Genérico	Lo Que es Importante Saber	Algunos Efectos Secundarios
Advair (Flovent+Serevent)	Fluticasone propionate y Salmeterol	<ul style="list-style-type: none"> Controla la hinchazón de las vías aéreas y constricción de músculos Tómelos todos los días aun cuando se siente bien. Advair no remplazará las medicinas de alivio rápido que se usan para síntomas repentinos 	<ul style="list-style-type: none"> Palpitar cardíaco, dolor del pecho, latir de corazón rápido Salpullido, ronchas, broncoespasmo Boquera, (infección de hongo, manchas blancas pequeñas dentro de la boca)
Anti-Inflamatorios Inhalados (Corticosteroides)			
Nombre / Marca	Nombre Genérico	Lo Que es Importante Saber	Algunos Efectos Secundarios
Beclivent Vanceril VancerilDS	Beclomethasone	<ul style="list-style-type: none"> Evita la hinchazón, inflamación, y la mucosidad en las vías aéreas. Se toma días o semanas para hacer efecto. Evita que el asma sea activado. Tome este medicamento todos los días como recetado por el doctor. No deje de tomar esta medicina al menos que su doctor se lo indique. El tratamiento preferido para asma persistente Tomado en dosis usuales recetados, no afectan el crecimiento Enjuague la boca después de usar 	<ul style="list-style-type: none"> Causa que se ponga ronco. Probablemente causa boqueras; enjuáguese la boca después de cada uso para evitar las boqueras.
Pulmicort	Budesonide		
AeroBid Nasarel	Flunisolide		
Flovent	Fluticasone		
Azmacort Kenalog	Triamcinolone		
Anti-Inflamatorios Inhalados (Sin Esteroides)			
Nombre / Marca	Nombre Genérico	Lo Que es Importante Saber	Algunos Efectos Secundarios
Intal	Cromolyn	<ul style="list-style-type: none"> Evita la hinchazón e inflamación estabilizando las celulas que forran las vías aéreas. Bloquea las reacciones a los causantes del asma. Requiere semanas para hacer efecto. No lo tome mas de 4 veces por día. Tómelo todos los días según recetado por el doctor, y no lo deje de tomar hasta que el doctor se lo permita. 	<ul style="list-style-type: none"> Los efectos secundarios casi no suceden.
Tilade	Nedocromil		
Modificantes de Leukotriene			
Nombre / Marca	Nombre Genérico	Lo Que es Importante Saber	Algunos Efectos Secundarios
Accolate	Zafirlukast	<ul style="list-style-type: none"> Evita la hinchazón, inflamación, y la mucosidad Nunca se usa para aliviar los síntomas. Accolate debe tomarse cuando el estómago está vacío. 	<ul style="list-style-type: none"> Dolores de cabeza o de estómago Consulte con su doctor si surgen síntomas de influenza. Si está usando la medicina Zyflo, es probable que usted necesite un análisis de sangre para chequear la función del hígado
Singulair	Montelukast		
Zyflo	Zileuton		

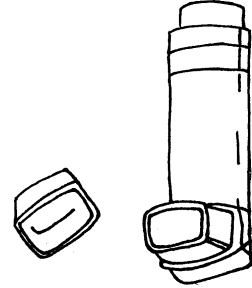


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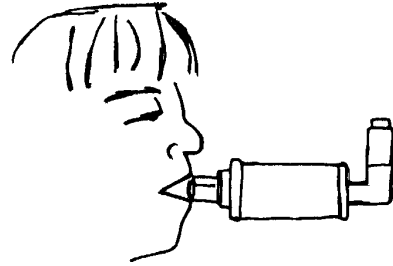
COMO USAR UN INHALADOR CON UN ESPACIADOR

Espaciadores aumenta la cantidad de medicina que llega a las vías aéreas y pueden disminuir efectos secundarios. Al usar el espaciador incorrectamente, menos medicina llegue a las vías. Siempre usar el espaciador como ha descrito un profesional de salud.

1. Quite la tapa
2. Conecte el inhalador al espaciador
3. Agitar bien el inhalador
4. Póngase de pie
5. Respire hacia fuera
6. Ponga el espaciador entre sus labios (si usa una máscara, asegúrese que este bien sellada sobre la nariz y la boca)



7. Presione el bote hacia abajo
8. Inhale al presionar y siga inhalando lentamente hasta que sus pulmones estén llenos



*** Al usar una máscara, manténgala sellada sobre la cara por 6-10 respiraciones (omitir 9-12)**

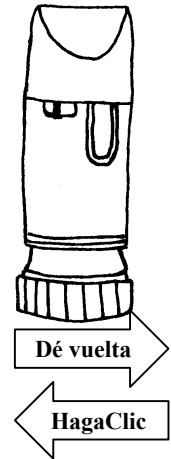
9. Mantenga la respiración por 10 segundos
10. Respire hacia afuera
11. Inhale por el espaciador una vez más sin presionar el bote
12. Espere 60 segundos antes de tomar la siguiente dosis
13. Repita los pasos 3 al 11 como se lo recetó el doctor
14. Enjuague su boca (Lávese la cara si usó una máscara)

Inhaladores de Polvo Seco

Turbuhaler® (De Vuelta, Haga Clic, Inhale)

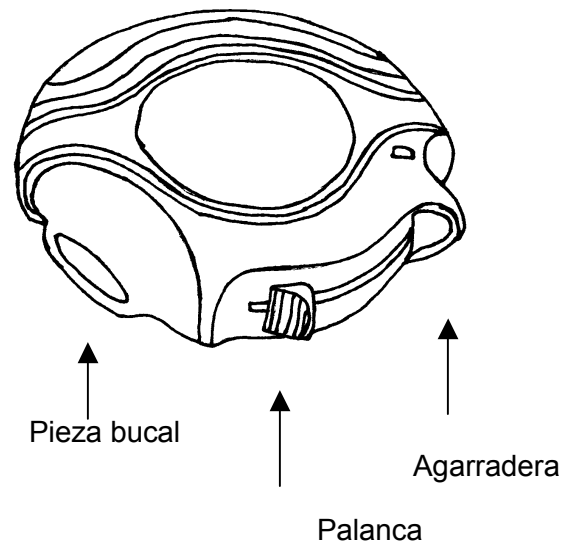
1. El nuevo Turbuhaler®:
 - Dé vuelta y haga "clic" 2 veces para prepararlo
2. Como cargar una dosis:
 - Sostenga el Turbuhaler® derecho
 - Dé vuelta a la tapadera y quítela
 - Dé vuelta a la rosca de abajo todo hacia la derecha y de regreso hacia la izquierda. Escuche que haga ¡Clic!
3. Como inhalar la medicina:
 - Voltee su cara retirandola del Turbuhaler® y sople todo su aire fuera (No sople hacia dentro del Turbuhaler®)
 - Coloque sus labios en la pieza bucal y inhale rápido y profundamente.
 - Detenga el aire inhalado dentro por 10 segundos
 - Repita los pasos 2 y 3 según haya sido recetado
 - Ciérrelo cuando termine
4. Como saber cuando reemplazar su Turbuhaler®:
 - El indicador de dosis le avisará cuando se está terminando la medicina.
 - Vea la ventanilla.

Transparente	=	Tiene Medicina
Rojo en la parte de arriba	=	Anda baja la medicina, ¡Surta su Receta de nuevo! (Restan aproximadamente 20 dosis)
Rojo en la parte de abajo	=	Está vacío



Diskus® (Abra, haga Clic, Inhale)

1. Pasos
 - Abrir: Detenga el Diskus® con una mano, y empuje la agarradera con su otro dedo pulgar hasta que aparezca la pieza bucal y esta se acomode en su lugar
 - Empuje la palanca hasta que sienta y oiga que hace ¡Clic!
 - Voltee su cara retirándola del diskus® y sople todo su aire fuera (No sople hacia dentro del Diskus®)
 - Coloque sus labios en la pieza bucal e inhale profundamente y con fuerza
 - Detenga el aire inhalado dentro por 10 segundos
 - Repita el proceso según la receta
 - Ciérrelo cuando termine
2. Sepa cuando reemplazar su Diskus®:
 - El contador de dosis le avisará cuando volver a llenarlo. Los últimos 5 números del contador (las últimas 5 dosis) son rojos.

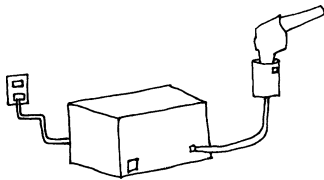
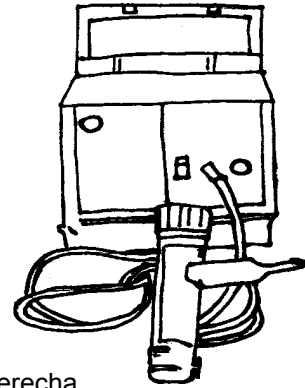


Tratamientos del Nebulizador

El nebulizador, “la máquina neb”, convierte la medicina en un vapor que se puede inhalar a los pulmones. A veces ciertas medicinas se pueden mezclar dentro del nebulizador. Consulte con su médico o farmacéutico sobre la mezcla de medicinas.

Instalación del Nebulizador:

1. Ponga la máquina en un sitio que este nivelado (parejo)
2. Enchufe la máquina en una conexión eléctrica si es necesario
3. Lave sus manos con jabón y agua
4. Arme el equipo
5. Agregue la medicina al vaso del nebulizador



Dar Tratamiento:

1. Siente a la persona en posición recta o derecha
2. Ponga la pieza bucal en la boca, entre los dientes, y cierre los labios (Si está usando una máscara, cubra la boca y la nariz con la máscara)
3. Prenda la máquina
4. Mantenga el vaso de medicina del nebulizador en una posición recta o derecha
5. Tome unos resuellos lentos y profundos a través de la pieza bucal (Si usa máscara persona a respirar por la boca cuando sea posible)
6. Retenga lo inhalado por 10 segundos, y después con la pieza bucal en la boca, sople lentamente
7. El tratamiento termina cuando toda la medicina es usada y ya no se ve nada de vapor (Durante el tratamiento, quizás tenga que pegar ligeramente al lado del vaso de medicina)
8. Si usa la máscara, lávese la cara para evitar el salpullido

anime a la

Limpeza y Como Guardar El Equipo:

1. Desarme las piezas
2. Ponga los tubos al lado
 - No remoje, lave, o enjuague los tubos. Reemplace si se empañan, despintan, o se mojan por dentro
3. Enjuague en agua tibia
4. Deje que todas las piezas se sequen al aire libre encima de una toalla de papel.
5. Cuando ya se hayan secado completamente, guarde las piezas en una bolsa de plástico o un recipiente



Desinfecte Una Vez Por Semana:

1. Remoje el vaso donde va la medicina, la pieza-t, pieza bucal, y la máscara en la vinagre rebajado por lo menos 10 minutos, pero es preferible toda la noche
2. Enjuague con agua
3. Seque al aire libre completamente encima de una toalla de papel
4. Cuando ya se hayan secado completamente, guarde las piezas en una bolsa de plástico o un recipiente

El Cuidado de la Máquina:

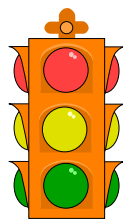
- Déle una pasada con un trapo húmedo, a según vea necesario.
- Examine el filtro cada mes. Cambie el filtro cada 6 meses o antes si se ha descolorido.
- El vaso de medicina de un Nebulizador debe ser reemplazado cada mes.
- El compresor usualmente requiere chequeo cada 5 año. Lea la garantía del producto.

NOMBRE: _____

DOCTOR: _____ FECHA: _____


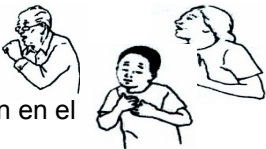

Teléfono de su doctor o de la clínica: _____

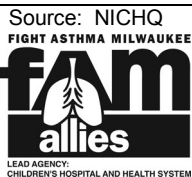
Teléfono del taxi o de un amigo: _____



Cuando el asma está bajo control:

1. No hay tos ni silbidos en su respiración durante el día ni durante la noche.
2. La función de sus pulmones es excelente.
3. No falta a la escuela o al trabajo.
4. No va a emergencia por razones de asma.
5. Los efectos secundarios del medicamento son pocos.
6. Se siente satisfecho con su cuidado del asma.

<p>1. Verde = Siga Adelante</p>	<p>Use medicamentos de control prolongado y evite los causantes del asma</p>												
<ul style="list-style-type: none"> • No hay problemas con la respiración • No hay tos, ni Silbidos al respirar • Puede trabajar / jugar  <p>Si usa el medidor de máximo flujo: Mi medida máxima de flujo fue arriba de _____ (80% de lo mejor que pude) Mi medida máxima de flujo es: _____</p>	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 30%;">Medicamento</th> <th style="width: 30%;">Cuanto tomar</th> <th style="width: 40%;">Cuando tomarlo</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> <p>Antes de hacer ejercicio: _____</p>	Medicamento	Cuanto tomar	Cuando tomarlo									
Medicamento	Cuanto tomar	Cuando tomarlo											
<p>2. Amarillo = CUIDADO</p>	<p>Use medicamento de efecto rápido para evitar que su asma empeore</p>												
<ul style="list-style-type: none"> • Hay tos • Hay Silbidos al respirar • Hay restricción en el pecho • Despierta por la noche  <p>No debería estar en esta condición todos los días. Haga algo para que su asma esté bajo control.</p> <p>Si usa el medidor de máximo flujo: _____ a _____ (50 – 79% lo mejor que pude)</p>	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 30%;">Medicamento</th> <th style="width: 30%;">Cuanto tomar</th> <th style="width: 40%;">Cuando tomarlo</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> <p>Tome muy en cuenta su Plan de Control de los Causantes:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Evite el humo de tabaco <input type="checkbox"/> Evite las cucarachas <input type="checkbox"/> Lave sábanas / cobijas / fundas semanalmente <input type="checkbox"/> Limpie el moho. <input type="checkbox"/> Mantenga las mascotas fuera de la recámara <input type="checkbox"/> Otros _____ 	Medicamento	Cuanto tomar	Cuando tomarlo									
Medicamento	Cuanto tomar	Cuando tomarlo											
<p>3. Rojo =ALTO = PELIGRO</p>	<p>¡Busque la ayuda de un doctor inmediatamente!</p>												
<ul style="list-style-type: none"> • El medicamento no le da alivio • Su respiración es fuerte y rápida. • La nariz se abre mucho al respirar • Las costillas resaltan • No puede hablar bien  <p>Si usted usa el medidor máximo de flujo: Mi flujo máximo fue menos de _____ (50% de lo mejor que pude)</p>	<p>Tome estas medicinas hasta que pueda ver a su doctor:</p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 30%;">Medicamento</th> <th style="width: 30%;">Cuanto tomar</th> <th style="width: 40%;">Cuando tomarlo</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> <p>Vaya al hospital o llame a una ambulancia cuando:</p> <ul style="list-style-type: none"> • Después de 15 minutos aún está en la zona roja Y . . . • Aún no ha logrado hablar con su doctor <p>Señales de Peligro – LLAME AL 911 cuando: El hablar o caminar se dificulta por falta de aire Los labios y uñas se ponen azul pálido o grises</p>	Medicamento	Cuanto tomar	Cuando tomarlo									
Medicamento	Cuanto tomar	Cuando tomarlo											



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Nombre: _____

Fecha de Nacimiento: _____


Identificación del paciente: _____

Nombre: _____

Doctor: _____ Fecha: _____

Teléfono de Taxi o amigo: _____

Teléfono para el doctor o clínica: _____

<p>Zona Verde = Se Siente Bien</p> <ul style="list-style-type: none"> No hay tos, silbidos en la respiración, restricción en el pecho, o falta de aire durante el día o la noche. Puede hacer sus actividades usuales. <p>Si usted usa el medidor de máximo flujo: Flujo máximo es mayor que _____ (80% de lo mejor que puedo) Lo mejor que puedo del flujo máximo _____</p>	<p>Tome estas medicinas de control prolongado cada día y evite los causantes del asma</p> <table border="1"> <thead> <tr> <th>Medicina</th> <th>Cuanto tomar</th> <th>Cuando tomarla</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table> <p>Antes de hacer ejercicio Tomar: _____ <input type="checkbox"/> 2 soplos o <input type="checkbox"/> 4 soplos _____ minutos antes de hacer ejercicio</p>	Medicina	Cuanto tomar	Cuando tomarla									
Medicina	Cuanto tomar	Cuando tomarla											
<p>Zona Amarilla = Está Empeorando</p> <ul style="list-style-type: none"> Tos, silbidos, restricción del pecho, o falta de aire, o Despertar de noche a causa del asma, o Puede hacer algunas, pero no todas las actividades usuales.  <p>Si usa el medidor de máximo flujo: _____ a _____ (50 – 79% de lo mejor que puedo)</p>	<p>Incorpore la medicina de alivio rápido y continúe tomando su medicamento de la zona verde</p> <p>1° Tome su medicina de rápido alivio: <input type="checkbox"/> _____ <input type="checkbox"/> 2 soplos o <input type="checkbox"/> 4 soplos o <input type="checkbox"/> _____ cc's Nebulizador (Broncodilatador de corto alivio) cada 20 minutos hasta 1 hora</p> <p>2° Si vuelve a la zona verde después de 1 hora del tratamiento mencionado arriba: <input type="checkbox"/> Tome la medicina de alivio rápido cada _____ horas por 2 días <input type="checkbox"/> Doble la dosis de su esteroide inhalado por _____ días</p> <p>o Si no vuelve a la zona verde después de 1 hora del tratamiento mencionado arriba: <input type="checkbox"/> Tome: _____ <input type="checkbox"/> 2 soplos o <input type="checkbox"/> 4 soplos o <input type="checkbox"/> _____ cc's nebulizador (Broncodilatador de corto alivio) <input type="checkbox"/> Incorpore: _____ ml o mg por día por _____ días (Esteroide bucal) <input type="checkbox"/> Llame al doctor antes de tomar los esteroides bucales, o entre _____ horas de haber tomado el esteroide</p>												
<p>Zona Roja = ¡Alerta Médica!</p> <ul style="list-style-type: none"> Mucha falta de aire al respirar, o Las medicinas de alivio rápido no han ayudado, o No puede hacer actividades usuales, o Síntomas siguen igual o peor después de 24 horas en la zona amarilla. <p>Si usa el medidor de máximo flujo: Máximo flujo es menos de _____ (50% de lo mejor que puedo)</p>	<p>¡Busque la ayuda de un Doctor AHORA MISMO!</p> <p>Tome la siguiente medicina: <input type="checkbox"/> _____ <input type="checkbox"/> 4 soplos o <input type="checkbox"/> 6 soplos o <input type="checkbox"/> _____ cc's nebulizador (Broncodilatador de corto alivio) <input type="checkbox"/> _____ ml o mg. (Esteroides bucales)</p> <p>Llame a su doctor inmediatamente. Diríjase al hospital o llame a una ambulancia si:</p> <ul style="list-style-type: none"> Aun sigue en la zona roja después de 15 minutos Y No ha logrado hablar con su doctor <p>Señales de Alerta - Llame al 911 si:</p> <ul style="list-style-type: none"> Tiene dificultad para caminar o hablar por falta de aire Los labios o las uñas se le han puesto azul pálidos o grises. 												

Source: NAEPP
FIGHT ASTHMA MILWAUKEE



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DIARIO DEL ASMA

Zona Verde (Está Bien) – Sin síntomas de asma (tos, silbido del pecho, presión en el pecho, falta de aire) durante el día y la noche. La respiración está bien y puede hacer las actividades normales.

Zona Amarilla (Cuidado – Empeorándose) – Tiene síntomas (tos, silbido del pecho, presión en el pecho, despierta de noche). No puede hacer las actividades normales a gusto.

Zona Roja (Peligro) – Falta mucho aire, las medicinas de rescate no ayudan, la respiración es difícil y rápida, no puede hacer actividades normales.
Vaya al Doctor, Ahora!

FECHA														
Medida del Flujo														
ZONA (Verde, Amarilla, o Roja)	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R	<input type="checkbox"/> V <input type="checkbox"/> A <input type="checkbox"/> R

Medicinas de Control del asma a largo plazo (Ponga en la lista sus medicinas diarias y marque el número de veces que las usa todos los días)														

Medicines de alivio rápido (Escriba el número de veces que las usa todos los días)														

Síntomas (Marcar con una "X")														
Tos														
Restricción en el Pecho														
Falta de Aire														
Silbido en el Pecho														
Despierta de Noche														
Falta a la escuela o trabajo														
Hace menos Actividades														
Otros														

Causantes (Ponga una "X" al lado de cada causante que le molestó hoy)														
Humo														
Animales														
Clima														
Polvo														
Olores Fuertes														
Otros														

Adapted from NAEPP



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COMO USAR SU MEDIDOR DE MÁXIMO FLUJO

Un medidor de máximo flujo mide lo bien que se mueve el aire fuera de los pulmones. Los medidores de máximo flujo ayudan más a la gente que tiene asma a un nivel entre moderado y severo. Este guía le enseñará (1) como encontrar su mejor número posible de máximo flujo, (2) como usar su mejor número posible para establecer sus zonas de máximo flujo, (3) como tomar su mejor número posible de máximo flujo, y (4) cuando tomar su medida (número) de máximo flujo para examinarse el asma todos los días.

Empezando: Encuentre Su Mejor Número Posible De Máximo Flujo

Para encontrar su mejor número posible de máximo flujo, tómese la medida de su máximo flujo todos los días por un total de 2 a 3 semanas. Durante este tiempo su asma debe estar bien controlado. Tómese la medida de su máximo flujo lo más cercano posible a los tiempos indicados más adelante. Estos tiempos para tomar la medida de máximo flujo indicados abajo son solo para encontrar **su mejor número posible** de máximo flujo.

- Por lo menos 2 veces al día durante 2-3 semanas
- Al despertar, y entre las 12:00 de medio día y 2:00 p.m. todos los días
- Cada vez que se toma su medicina de alivio rápido para el alivio de los síntomas (mida su máximo flujo después de tomar la medicina)
- Cualquier otro tiempo que indique su doctor

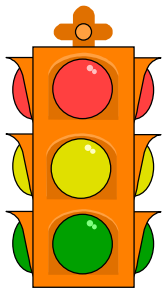
Escriba el número que obtiene por cada tomada de medida de máximo flujo. El número o la medida más alta que se repita que obtenga durante el período de las 2 a las 3 semanas es su mejor número posible de máximo flujo.

Su mejor número posible puede llegar a cambiar a medida que pasa el tiempo. Consulte con su medico sobre cuando se puede tomar su mejor número posible otra vez.

Para examinarse su asma todos los días, se tomará su máximo flujo por la mañana. Esto se explica en la siguiente página.

Sus Zonas de Máximo Flujo

Sus zonas de máximo flujo están basadas en su mejor número posible de máximo flujo. Estas zonas le ayudarán a examinar su asma para así tomar las medidas adecuadas para mantenerlo controlado. Los colores de las zonas vienen del semáforo de tráfico.



Zona Verde

(El 80 al 100 por ciento de su mejor máximo flujo) Significa “buen control”. Tómese sus medicinas usuales diarias de control a largo plazo, si las está tomando. Siga tomando estas medicinas aun cuando se encuentra en las zonas amarilla o roja.

Zona Amarilla

(El 50 al 79 por ciento de su mejor máximo flujo) Significa “precaución”. Su asma empieza a empeorar. Incorpore las medicinas de alivio rápido. Quizás sea necesario que aumente las otras medicinas según se las haya recetado su doctor.

Zona Roja

(Abajo del 50 por ciento de su mejor máximo flujo) Significa “¡alerta médica!” Agregue o aumente las medicinas de alivio rápido y llame a su doctor ahora mismo.

Pida A Su Doctor Que Escriba Un Plan de Acción Que incluya:

- Los números de su máximo flujo para sus zonas verde, amarilla y roja. Marque en su medidor de máximo flujo sus zonas con cinta adhesiva de colores o plumones de colores.
- Las medicinas que usted debe tomar cuando se encuentra en cada una de sus zonas de máximo flujo.

Como Tomarse Los Números O Las Medidas De Su Máximo Flujo

1. Coloque el marcador hacia abajo de la escala.
2. Póngase de pie o siéntese derecho.
3. Respire profundamente, llenando completamente sus pulmones.
4. Detenga el aire dentro de sus pulmones mientras coloca la pieza bucal en su boca, entre sus dientes. Apriete la pieza con sus labios. No meta la lengua dentro de la abertura.
5. Sople lo más fuerte y rápido que pueda. Su medidor de máximo flujo le marcará lo más rápido que usted puede soplar.
6. Apunte el número que marcó el medidor de máximo flujo. Pero si usted tosió o hizo algún error, no apunte el número, sino hágalo de nuevo.
7. Repita los pasos 1 a 6 dos veces más. Apunte el número más alto de las 3 veces. Este es su número de máximo flujo.
8. Observe en que **zona** de máximo flujo se encuentra su **número** de máximo flujo. Tome los pasos indicados por su doctor cuando usted se encuentra en tal zona.

Es posible que su doctor le pida que apunte el número de su máximo flujo todos los días. Esto lo puede apuntar en un calendario o algún otro cuaderno. Esto les ayudará a usted y a su doctor ver como le está yendo con su asma a medida que pasa el tiempo.

Examinándose El Asma: Cuando Debe Usar Su Medidor de Máximo Flujo

- Todos los días al despertar, antes de tomar su medicamento. Conviértalo en parte de su rutina diaria.
- Cuando está teniendo síntomas de asma o un ataque. Y después de tomar medicina para el ataque de asma. Esto le puede indicar la gravedad de su ataque y si su medicamento está funcionando.
- Cualquier otro tiempo que su médico le sugiera. Si usted usa más de un medidor de máximo flujo, como uno en casa y otro en la escuela, asegúrese que los dos sean de la misma marca.

Lo Que Debe Llevar Consigo A Cada Consulta Con Su Doctor:

- Su medidor de máximo flujo.
 - Sus números de máximo flujo si los ha estado apuntando todos los días.
- También, pida a su doctor o enfermera que lo(a) observe usar su medidor de máximo flujo para asegurar que usted lo está usando correctamente.

Source: NAEPP



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Fecha: _____ Viviendo con asthma para _____

Por favor, llene esta encuesta. Sus respuestas nos ayudarán a proveerle un mejor cuidado a su niño/a con asma. Si requiere asistencia, por favor, hable con la recepcionista. ¡Gracias!

1. Mi niño/a está aquí hoy para:

- Una consulta regular (para el cuidado de un niño sano, consulta de asma, un repaso de cómo le está yendo a mi hijo/a)
 Una consulta de "enfermo" con problemas de asma. ¿Si es una consulta de enfermo, que fue lo que causó el problema de asma?

Otra razón: _____

Para preguntas 2 y 3, marque una opción para cada pregunta describiendo la salud de su niño/a durante las últimas 2 semanas:

2. Durante las últimas 2 semanas, mi niño/a ha tenido tos, silbidos en el pecho, falta de aire DURANTE EL DIA:

Todos los días, todo el tiempo

Todos los días, pero no todo el tiempo

Más de 2 veces a la semana, pero no todos los días

2 veces a la semana o menos

Nunca

3. Durante las últimas 2 semanas, mi niño/a ha sentido molestia de tos, silbidos en el pecho, o falta de aire durante la noche:

Frecuentemente/Todas las noches

Más que una vez a la semana

Una vez a la semana

Una vez cada 2 semanas o menos

Nunca

Para el uso del Doctor:

Classify severity:

Before therapy is attained: by symptoms and objective measures.

After optimal therapy: by treatment needed to maintain control.

- Mild Intermittent
 Mild Persistent
 Moderate Persistent
 Severe Persistent

4. Durante los últimos 30 días, incluyendo a usted mismo ¿Alguien ha fumado tabaco dentro de su casa o en alguna casa que su niño/a frecuenta?
 No Sí No estoy segura/a

5. Durante los últimos 2 meses:

Yo u otra persona de mi familia hemos faltado a la escuela o trabajoa causa del asma de mi niño/a:

- No Sí → Si contesta "SI", ¿Cuántos días han faltado? _____ No asisto a la escuela, o no trabajo fuera de la casa

Mi niño/a ha faltado a la escuela o a la guardería por causa del asma:

- No Sí → Si contesta "SI", ¿Cuántos días han faltado? _____ Mi niño/a no asiste a la escuela o guardería

6. Durante los últimos 2 meses, he hecho lo siguiente en mi casa para reducir las síntomas de mi niño/a (marque todos que aliquen):

- Cambie el hábito de fumar Cobertores de colchón y almohadas Lavé sábanas en agua caliente Otra: _____
 Aumenté el aspirar Reduje el contacto con mascotas Tratamiento antes de ejercicio No he hecho nada

7. Durante los últimos 6 meses, mi niño/a ha visitado lo(s) siguiente(s) por causa de un ataque de asma:

- Una oficina o clínica de doctor No Sí → Si responde "SI", ¿Cuántas veces?: _____
 Sala de Emergencia No Sí → Si responde "SI", ¿Cuántas veces?: _____
 Le internaron No Sí → Si responde "SI", ¿Cuántas veces?: _____

8. ¿Está de acuerdo que usted se siente segura en cuanto a como manejar su asma o el de su niño/a?

- Muy de acuerdo De acuerdo Neutral Desacuerdo Muy desacuerdo

9. Ponga un círculo alrededor de cada medicina de asma que usa su niño/a, y marque la frecuencia con la que la usa.

Grupo de medicina para el asma	Cada día	3 veces o más en la última semana	1-2 veces durante la última semana	No usó
Alivio Rápido (Proventil, Ventolin), Maxair, Xopenex				
Esteroides Inhalados —Flovent, Pulmicort, Advair, AeroBid, Azmacort, Beclovent, Vanceril				
Singulair, Accolate, Zyflo				
Cromolyn (Intal), Tilade				
"Albuterol" Sostenido/soltado - Serevent, Proventil Repetabs, Volmax				
Esteroides Bucales --Prednisone, Prelone, Pediapred, Decadron				

10. Un plan para el cuidado del asma tiene instrucciones escritas, de cómo cuidar del asma de su niño/a, con diferentes tratamientos según la condición del asma de su niño/a. ¿Tiene usted una copia al día de un plan de asma para su niño/a?

- No → Si responde "No," ha terminado la encuesta No Sé → Si No está seguro/a ha terminado la encuesta.
 Sí → Si responde "SI," ¿Quién tiene una copia del plan? (marque todos los que apliquen):
 Tengo un plan en la casa La guardería o escuela de mi niño/a tiene una copia del plan.

Por favor, devuelva la encuesta a la recepcionista. ¡Muchas Gracias por llenar la encuesta!

Clinician Signature: _____

Date: _____

Source: Fight Asthma Milwaukee Allies, Adapted from National Initiative for Children's Healthcare Quality