



Caring For Kids with Asthma: Childcare Training Curriculum Guide

About Caring For Kids with Asthma

The *Caring For Kids with Asthma* curriculum was developed by the Controlling Asthma in American Cities Project (CAACP) Child Care Education Workgroup, and CAACP staff. The CAACP project, a program administered by the American Lung Association of Minnesota, was supported through a cooperative agreement with the Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, under program announcement 03030. Additional information for this curriculum was derived from the American Lung Association of Wisconsin's *Counting On You* curriculum and the Healthy Learners Asthma Initiative in Minneapolis Public Schools. The curriculum addresses knowledge and skills to help the childcare provider care for a child with asthma. This curriculum is delivered in one 90 to 120-minute session.

Curriculum Goal: To provide practical knowledge and skills about asthma for childcare providers.

Curriculum Objectives:

1. Ensure childcare providers understand: what is asthma, the signs and symptoms of respiratory distress, when to give medications, how to deliver medication and use equipment, and how to make environmental modifications in the childcare environment.
2. Include a variety of educational strategies in the in-service, including speakers, hands-on demonstrations, and participatory activities.

Curriculum Content Focus:

- Asthma as a chronic disease including pathophysiology, symptoms, management goals, triggers, environmental modifications, medications, and asthma action plan.
- The role of the childcare provider in caring for a child with asthma.
- Instructions on using a metered dose inhaler and a nebulizer.
- Information the childcare provider should provide to parents.

Session Timing: This session presentation is 90 to 120 minutes in length.

Recommended Trainers:

Public health nurses and health educators who have advanced training in asthma education have delivered this curriculum to family daycare and childcare centers in the Minneapolis / Saint Paul area and in Greater Minnesota. The recommended qualifications of speakers for this curriculum include a health educator, nurse, or respiratory therapist who has advanced training in asthma education, with a preference for certified asthma educators. Speakers should also have an understanding of childcare settings. Select dynamic speakers with good group discussion and facilitation skills.

Recommended Setting:

This curriculum has been successfully used in group education settings for both childcare centers and family childcare providers. Since this curriculum has a significant hands-on component for the demonstration of medication delivery devices, it is recommended to provide this training with less than 25 participants.

Evaluation Results:

This curriculum was pilot tested four times. It was subsequently revised and delivered over 30 times to over 450 childcare providers. A professor from the University of Minnesota School of Nursing, the CAACP staff, the CAACP evaluation team, and the CAACP Child Care Intervention Workgroup members have reviewed this curriculum for content. The evaluation results found participant's expectations were met and the majority found they were very satisfied with the amount, relevance, and quality of the information provided. The evaluation findings for this project are specific to the setting, target audience, and content of the program as delivered by CAACP. The program may not have the same results if delivered in a different type of setting, to a different type of audience, or with modified content.

The evaluation of this program is on-going. We ask for your feedback as you deliver the program in your community. Please see attached "Program Reporting Form."

Materials Included with *Caring for Kids with Asthma* Curriculum:

- *Caring for Kids with Asthma* curriculum PowerPoint presentation
- Curriculum evaluation form
- Handouts including:
 1. Asthma Knowledge Quiz

2. Asthma Triggers
3. Care and Cleaning of Spacers
4. How to Use a Metered Dose Inhaler & Care and Cleaning of a Metered Dose Inhaler (2-sided page)
5. How to Use the Compressor-Driven Nebulizer & Nebulizer Care and Cleaning (2-sided page)
6. Medication Information Sheet
7. Asthma Action Plan from the American Lung Association – color copied

Note: The Asthma Action Plan loses its impact if it is not printed in color, therefore, color copies of this form are recommended.

Additional Materials Needed:

- Name tags
- Stock of broccoli or American Lung Association poster of healthy and asthma affected lungs
- Posters or models of healthy and asthma affected bronchial tubes
- Placebos of nebulizers, metered dose inhalers, masks, and spacers
- Nebulizer machine
- Straws
- Trigger box including: chalk, stuffed animal – preferably dog or cat – or picture of dog or cat, toy mouse, picture of dust mite, aerosol spray container, example of pollen or allergy-causing plant, piece of carpet, example or picture of perfume, candy cigarettes or empty cigarette package (and examples of other environmental triggers)
- Asthma resource list - including programs or products available through the local American Lung Association Chapter (Contact your local chapter by calling 1-800-LUNG-USA)

For more information on how to order American Lung Association posters or materials contact the American Lung Association of Minnesota at 651-227-8014 or 800-586-4872.

Preparing For the Session:

This presentation has been developed in PowerPoint format and has a total of 48 slides. Prior to delivering this presentation, review the session outline. The same notes are available in the PowerPoint presentation by selecting “Notes Pages” under the “View” menu. The outline is

designed to provide scripts / instructions for each slide. Scripts are bracketed with quotation marks, and instructions to the speaker are underlined.

Session Outline

1. Caring for Kids with Asthma	
Slide Description	Title slide
Materials or Handouts	Sign-in sheet Asthma Knowledge Quiz
Speakers Notes	<p><u>Send around sign-in sheet.</u> <u>Consider having participants complete the Asthma Knowledge Quiz before beginning the presentation.</u></p> <p>“Good morning/afternoon. My name is: <u>provide your name and professional background.</u> Welcome to the <i>Caring for Kids with Asthma</i> training. Thank you for your interest in this training. This in-service is brought to you by <u>sponsoring organization.</u> I would like each of you to introduce yourself and tell us if you know someone or care for a child with asthma. Also if you have not signed the participant sheet, please do so. And finally, I will be providing a certificate of attendance to all participants at the end of the in-service.”</p>

2. Background	
Slide Description	Recent asthma statistics
Materials or Handouts	None
Speakers Notes	<p><u>Review information on the slide.</u> “Asthma is a chronic inflammatory disease of the lungs. The prevalence of asthma has been on the rise for the past 20 years.”</p>

3. What is Asthma?	
Slide Description	Defining the features of asthma
Materials or Handouts	Stock of broccoli, lung model, or poster of lungs
Speakers Notes	<p><u>Briefly review anatomy of lungs using an upside-down stock of broccoli or a diagram or model of the lungs. Use a stock of broccoli as hands-on model.</u></p> <p>“Let us review the defining features which are always present with asthma.” <u>Review the features listed on the slide.</u></p> <p>“A person with asthma has airways that are sensitive to irritants called triggers. Healthy airways can filter out these irritants. Let’s compare a normal airway to an airway when asthma is not in good control.”</p>

4. Lungs When Asthma is in Good Control	
Slide Description	Picture of a healthy-looking airway
Materials or Handouts	None
Speakers Notes	"Here is a picture of an airway with good control." <u>Point out the healthy features of the airway.</u>

5. Lungs When Asthma is <u>NOT</u> in Good Control	
Slide Description	Picture of an airway during an asthma episode
Materials or Handouts	None
Speakers Notes	"Here is a lung not in good control." <u>Review the picture, making note of the swelling, muscle constriction, and mucous plug.</u>

6 & 7. Symptoms of Asthma	
Slide Description	Listings of asthma symptoms
Materials or Handouts	None
Speakers Notes	"The symptoms of asthma are related to how the airways are sensitive to triggers and the tightening of muscles. For example, wheezing is the result of air squeaking through a narrow airway. As we just reviewed with the anatomy, the more swelling and muscle tightening – the harder it is to breathe." <u>Review the list of symptoms.</u>

8. Asthma Management Goals	
Slide Description	List of asthma management goals
Materials or Handouts	None
Speakers Notes	"The goals of managing asthma are listed here and are based on National Guidelines developed by the National Institutes of Health. If a child's asthma is managed well he or she will not have ongoing symptoms. The child should sleep through the night and participate in normal activities. Finally, the child should have near normal lung function."

9. Asthma Severity	
Slide Description	Description of asthma severity
Materials or Handouts	None
Speakers Notes	<p>"Part of managing asthma includes assessing the severity of a child's asthma, which has four levels. The symptoms determine the severity level. The severity level then determines the type, dosage, and frequency of medications. If a child's asthma impedes daily activity on a regular basis, the child could be considered disabled. This could entitle the child to different transportation (504). However, the goal of asthma management is to ensure that asthma does not impede the child's daily activity."</p>

10. Asthma Severity Levels	
Slide Description	Chart of the four asthma severity levels and the criteria for each
Materials or Handouts	None
Speakers Notes	<p>"This slide lists the four severity levels – mild intermittent, mild persistent, moderate persistent, and severe persistent – along with the symptoms and medications for each level."</p> <p><u>Participants may review the slide in more detail on their own. The intention of this slide is merely to make them aware of the categories and what factors contribute to designating severity.</u></p>

11-13. Myths and Truths about Asthma	
Slide Description	Listing of common myths about asthma and the corresponding truth
Materials or Handouts	None
Speakers Notes	<p>"Next I would like to discuss some of the myths that are often associated with asthma."</p> <p><u>Review the list on the three slides.</u></p>

14-16. Asthma Triggers	
Slide Description	Listing of asthma triggers by category (irritants, allergens, and other)
Materials or Handouts	Trigger box "Asthma Triggers" handout
Speakers Notes	<p>"Triggers are either irritants or allergens which begin asthma symptoms. When someone with asthma encounters a trigger, the airways become swollen, full of mucus, and tighten up. Triggers are common things in the environment. When someone has asthma, certain trigger factors can "turn on" their disease. Not everyone has the same triggers."</p> <p><u>Use the trigger box to review each of the triggers on slides 14-16.</u></p> <p>Slide 15: "Allergens are substances which cause super-sensitive reactions in the body."</p> <p>Slide 16: <u>Discuss the effects of secondhand smoke.</u></p>

17. Avoiding Triggers	
Slide Description	Ways to learn from parents how to avoid asthma triggers
Materials or Handouts	None
Speakers Notes	<p>"There are many things that can reduce triggers in childcare settings. Asking information from parents is key to avoiding triggers. If parents are unaware of what their child's triggers are, have a discussion about their experience with their child's asthma and when it acts up."</p>

18-20. Actions to Reduce Triggers at Childcare Sites	
Slide Description	Listing of action steps to reduce triggers
Materials or Handouts	None
Speakers Notes	<p>"Here is a list of the things you can do at your childcare facility to reduce triggers."</p> <p><u>Review the action steps on the slides.</u></p> <p>"Keeping your classroom free of clutter helps the center's custodian better clean your classroom. Instead of animals with fur, you may want to consider fish, lizards, snakes, or turtles."</p> <p><u>Ask participants about their experience with triggers.</u></p>

21. Early Warning Signs	
Slide Description	Listing of early warning signs of an asthma flare-up
Materials or Handouts	None
Speakers Notes	<p>"Most people with asthma have warning signs hours or days before an asthma episode. Warning signs are different for everyone. Here is a list of warning signs that may signal the beginning of an asthma episode."</p>

22. What to Look for...	
Slide Description	Physical symptoms to look for in a child that might signal an asthma flare-up
Materials or Handouts	None
Speakers Notes	<p>"During an asthma episode, the airways become swollen, have increased mucus production, and the muscles around the airways become tight. All of these changes cause the airways to narrow and make it difficult to breathe. Some of the things you might notice are listed on this slide, such as an anxious look on the child's face."</p> <p><u>Read the list on the slide.</u> <u>Demonstrate pursed lip breathing and hyperventilation.</u></p>

23. What to Listen for...	
Slide Description	Audible signs of an asthma flare-up in a child
Materials or Handouts	None
Speakers Notes	<p>"As a result of the symptoms that occur during an asthma episode, you will usually hear some of these signs."</p> <p><u>Read through the list.</u></p> <p>"A wheeze is a high-pitched sound heard when breathing out. It is the result of a narrow airway."</p>

24. What to Do for Asthma Episodes	
Slide Description	Action steps when a child is having an asthma episode
Materials or Handouts	Drinking straws
Speakers Notes	<p><u>Review list. Explain that an asthma action plan will be reviewed in more depth.</u></p> <p>"One way to get an idea of what asthma feels like is by using a straw."</p> <p><u>Demonstrate by taking a straw and breathing through it. Ask the participants to do the same. Ask participants, "Can you imagine how it would feel like to breathe through the straw for a long period of time?"</u></p>

25. Asthma Medications	
Slide Description	Description of controller medications
Materials or Handouts	Medication Information Sheet Placebos of controller medications
Speakers Notes	<p>"A big piece of taking care of asthma is having the right medication, taking the right amount of it, and taking it at the right time. Asthma medications fall into two categories: controller medication and relievers, or rescue meds.</p> <p>"Asthma controllers (also called anti-inflammatory medication) help control asthma over time and prevent asthma symptoms. Controller medications are taken daily on a long-term basis to control persistent asthma. These medications help prevent swelling and mucus in your airways. This medicine will not relieve symptoms during an asthma episode or attack.</p> <p>"The preferred controller medicine is inhaled corticosteroids. Controller medications come in prescriptions that last one-month. Inhaled corticosteroids are given at a low dosage by an inhaler or a nebulizer. They are inhaled so they go directly to the lungs where they are needed. There are few side effects from taking inhaled corticosteroids for a long time."</p> <p><u>Pass around the placebos of the various controller medications.</u></p>

26. Asthma Medications	
Slide Description	Description of reliever medications and steroid bursts
Materials or Handouts	Medication Information Sheet Placebos of reliever medications
Speakers Notes	<p>"Asthma relievers, also known as bronchodilators, rescue medications, or "albuterol," help to relieve asthma symptoms temporarily. They provide quick relief as needed. These medicines are taken when symptoms begin, and they help reduce bronchospasms (where smooth muscles tighten like rubber bands around the airways). This medicine should work within 5-10 minutes.</p> <p>"Reliever inhalers contain 200 doses. The only way to know how many doses (puffs) remain in the inhaler is to count the number taken. When an inhaler is empty, there can still be noise when the canister is shaken. This noise is the propellant in the canister."</p> <p><u>Review the examples of reliever medicines and pass around placebos.</u></p> <p>"Oral steroids (taken in pill form by mouth) are taken short-term (5-7 days) to treat severe episodes of asthma. They are high-dosage and can have serious side effects if taken long-term. Because oral steroids are taken by mouth, they have to be absorbed from the stomach to work. An oral steroid like prednisone gives a very high dose, much higher than an inhaled steroid."</p>

27. Small Children Can Get Their Medications by...	
Slide Description	Use of nebulizers and MDI with spacer and mask for small children
Materials or Handouts	None
Speakers Notes	"Since smaller children (under 5 years old) are not able to coordinate using a metered dose inhaler, they often use a nebulizer to get their medication. An equally effective method of delivering the medication is to use a metered dose inhaler with a spacer and a mask."

28 & 29. Spacer Use with Inhalers	
Slide Description	Importance of using spacers with MDIs
Materials or Handouts	"Care and Cleaning of Spacers" handout
Speakers Notes	<p>"It is important that children use a spacer with an inhaler because they get more medication into the lungs with a spacer. For example, without a spacer, 9% of medication goes into the lungs. With a spacer, 21% of medication goes into the lungs." (Reference: ALA of Central New York)</p> <p>"Why is difficult to use an inhaler without spacers? First of all, it is hard to coordinate breathing and spraying at the same time. Frequently the user breathes in too fast or does not hold their breath. Also, the medicine comes out of the inhaler too fast. "</p> <p><u>Review the "Care and Cleaning of Spacers" handout.</u></p>

30. How to Use a Metered Dose Inhaler	
Slide Description	Steps for proper use of an MDI
Materials or Handouts	"How to use a Metered Dose Inhaler" and "Care and Cleaning a Metered Dose Inhaler" two-sided handout
Speakers Notes	<u>Read the slide. (Slide matches the handout.) Demonstrate these steps on how to use the inhaler and allow time for practice.</u>

31 & 32. Delivering Nebulizer Treatments	
Slide Description	Steps for proper medication delivery using a nebulizer
Materials or Handouts	Nebulizer machine to demonstrate "How to Use the Compressor-Driven Nebulizer" and "Nebulizer Care and Cleaning" two-sided handout
Speakers Notes	<u>Read through the two slides. (Slides match the handout.) Demonstrate how to give a nebulizer treatment using the nebulizer machine.</u>

33 & 34. Asthma Action Plan & Using an Asthma Action Plan	
Slide Description	What is an asthma action plan and how should it be used
Materials or Handouts	Sample asthma action plan from the American Lung Association
Speakers Notes	<p>Slide 33: "An asthma action plan is a written guide from the health care provider to assist in managing asthma. It provides guidelines for managing asthma episodes, medication information, and any special instructions."</p> <p><u>Review with participants the example asthma action plan in their packet.</u></p> <p>Slide 34: "We recommend you ask parents to have one completed by their child's health care provider. Parents can keep a copy handy for when symptoms occur. They also can provide you with one to keep at the childcare site."</p>

35. Zones of Asthma Episodes	
Slide Description	The three zones of asthma symptoms
Materials or Handouts	None
Speakers Notes	"For educational purposes, asthma symptoms are divided into zones. There are three asthma zones – Green, Yellow, and Red."

36. Green Zone	
Slide Description	Description of the green zone
Materials or Handouts	None
Speakers Notes	"During the green zone, a child's asthma is under control. Children are often on daily controller medication when in this zone. The goal is to participate in all activities and not be limited in any way."

37 & 38. Yellow Zone	
Slide Description	What asthma feels like in the yellow zone and a description of the yellow zone
Materials or Handouts	None
Speakers Notes	<p>Slide 37: "Here is a picture from a child's perspective of what it feels like to be in the yellow zone."</p> <p>Slide 38: "During the yellow zone, you need to be cautious. Children are usually taking reliever medications and daily controller medications. You might start to see early warning signs that we discussed earlier. The most important thing to note is that if a child is in the yellow zone for 12-24 hours or breathing symptoms are worse, you should contact a parent and a primary health care provider."</p>

39 & 40. Red Zone	
Slide Description	Description of the red zone and when to call 911
Materials or Handouts	None
Speakers Notes	<p>Slide 39: "Once a child is in the red zone, the reliever medicine is not effective, not available, or has been used too recently to repeat again. The area around the child's lips may appear bluish or the nail beds may appear blue. Children will have difficulty talking, walking, or drinking. The skin areas of the neck, throat, or chest suck in. There may be nasal flaring when the child breathes in, as the nostrils are opening wide to try to get more air in. A child is often in obvious distress (gasping for air, fearful, etc). An altered state of consciousness means that the child may be confused, not responsive, or not oriented to time, person, or place."</p> <p>Slide 40: <u>Read the statement on the slide.</u></p>

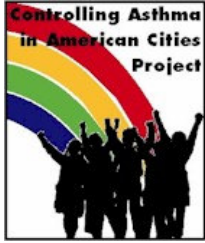
41-45. Scenarios	
Slide Description	Case scenarios
Materials or Handouts	None
Speakers Notes	<p>"Next we will review four case scenarios. For each one, I would like to discuss the following questions:</p> <ol style="list-style-type: none"> 1) What seems to be the trigger? 2) What signs/symptoms indicate that this child is having an episode? 3) What zone is this child in? 4) What should you do next? <p><u>Read through each of the scenarios and discuss responses to the four questions above with the group.</u></p>

46. Parents Need to Know...	
Slide Description	Information that parents need to know about their child's asthma
Materials or Handouts	None
Speakers Notes	<p><u>Review the information on the slide.</u></p> <p>"Children using reliever medications, such as albuterol, should not be using their inhaler more than every 4 hours. Typically, this should only be needed if the student has a cold or is having an acute asthma episode over a few days. Typically the child needing an inhaler every four hours or more should be under the care of a health care provider."</p>

47 & 48. Key points	
Slide Description	Key take-home points
Materials or Handouts	None
Speakers Notes	<p><u>Review the statements on the two slides.</u></p> <p><u>Ask if there are any questions.</u></p> <p><u>Add any closing remarks and remind participants to complete their evaluation forms.</u></p> <p>(<i>When applicable</i>, "We will be sending out a follow-up questionnaire to all participants so we can learn from your experience.")</p> <p>"Thank you for attending."</p> <p><u>Give out the certificate of attendance to all participants.</u></p>

Handouts

- I. Asthma Knowledge Quiz (2 pages)
- II. Asthma Triggers List
- III. Care and Cleaning of Spacers
- IV. How to use a Metered Dose Inhaler and Care and Cleaning of a Metered Dose Inhaler (2 sided)
- V. How to use a Compressor Drive Nebulizer and Care and Cleaning of a Nebulizer (2 sided)
- VI. Medication Information Sheet (separate attachment) (2 sided)
- VII. Asthma Action Plan (separate attachment – PDF)
- VIII. Evaluation Form
- IX. Program Reporting Form



Asthma Knowledge Quiz

The following quiz will test your knowledge about asthma. Always consult your physician for more information.

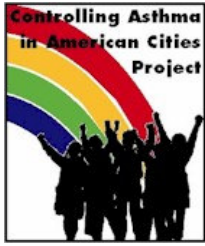
True or false questions:

1. One-third of all people with asthma in the US are children. T F
2. Asthma is a disease that rarely complicates pregnancies. T F
3. There is no cure for asthma. T F
4. Tobacco smoke can make asthma episodes more severe. T F
5. Asthma can be caused by emotional stress or other psychological problems. T F
6. Although asthma causes breathing problems, asthma episodes are not dangerous. T F
7. Lung function cannot be measured and monitored by the person with asthma. T F
8. Many triggers exist that can cause an asthma episode. T F
9. There are different medications that help to control asthma, depending on the severity of the disease. T F
10. Asthma episodes always occur suddenly, without warning. T F

Answers:

1. True. About 6.3 million children under the age of 18 have asthma.
2. False. In fact, asthma is one of the most common diseases to complicate a pregnancy.
3. True. However, with proper asthma control and management, most people can lead healthy lives.
4. True. Tobacco smoke from pipes, cigars, and cigarettes can trigger and worsen an asthma episode. Other types of smoke that can increase the severity of asthma symptoms include smoke from fireplaces and outdoor smog.
5. False. Although strong emotions can make asthma symptoms more severe, asthma is a physical disease of the lungs and airways.
6. False. An uncontrolled asthma episode can lead to hospitalization and even death. Chronic, uncontrolled asthma - even mild asthma - also affects quality of life; consequently, a person with uncontrolled asthma may become less active.
7. False. A peak flow meter, which is a small device that measures airflow out of the lungs, can be used to measure lung function at home, school, or work.
8. True. Many asthma episodes are triggered by a combination of factors, including pollen, dust, weather, smoke, foods, odors, cold or flu, or pets.
9. True. Some people with mild asthma may only need to take medication when experiencing symptoms, while others with more severe asthma may need to take daily medication to keep the asthma under control. Specific asthma medications will be prescribed by your physician based on your medical history and the severity of your symptoms.
10. False. Some asthma episodes may occur suddenly, without warning. However, most asthma episodes, even those with sudden onset, are usually preceded by certain symptoms such as a cough, scratchy throat, and chest tightness. It is important to learn what the early warning signs of an asthma episode are, so that you can take preventive management steps (such as proper medication) to avoid a serious asthma episode.

Source: This quiz is available on multiple hospital websites across the US.
Asthma and Allergy: Asthma Knowledge Quiz Retrieved from the World Wide Web
<http://content.jeffersonhospital.org/content.asp?pageid=P00032>



Asthma Triggers

What is an asthma trigger? Triggers are either irritants or allergens that can start asthma symptoms.

Irritants: Things that may bring on asthma symptoms



Tobacco smoke is a potent trigger for asthma and upper respiratory tract infections. Even being in a home or car where smoke lingers can bring on an asthma episode.



Strong odors such as perfumes, room deodorizers, cleaning chemicals, paint, and talcum powder are examples of triggers that should be avoided.

Dust and Chalk Dust



Hot or Cold Air



Allergens: An allergy is a super-sensitivity to particles including: animal dander from cats and dogs

Dust mites



Pollen / Grasses



Certain foods / drugs such as peanuts, shrimp, tree nuts, fish, Sulfites, Aspirin

Other Triggers include:

Exercise – with use of warm up exercises and inhaled bronchodilator before exercise, most people can exercise normally.

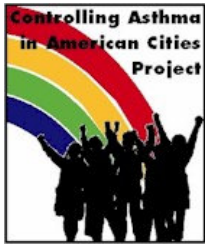


Viruses (or colds)



Strong Emotions





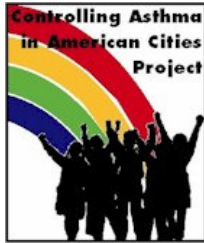
Care and Cleaning of Spacers

Regular cleaning will prevent powder accumulation inside the device.

1. Remove the rubber-like end of the chamber that holds the inhaler.
2. Soak both parts in warm water with a mild detergent for 15 minutes. Agitate gently to dislodge or loosen any residue.
3. Rinse the parts with clean, warm water. Shake of the excess water and allow chamber to air dry
4. Replace the rubber end when the chamber is completely dry and ready for use.
5. Over time the flap valve may harden and start to curl. If this happens, the device should be replaced.

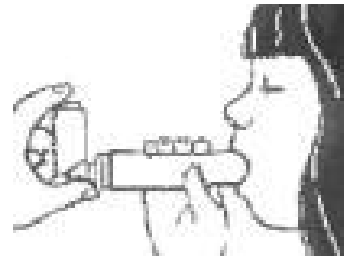
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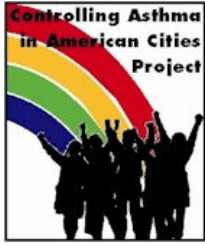




How to Use a Metered Dose Inhaler

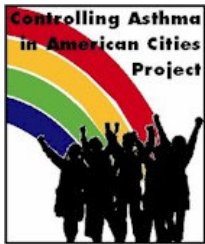
1. Shake the inhaler well for at least 10 seconds, and then remove the cap.
2. Insert inhaler into spacer.
3. Breathe out fully with chin up to empty the lungs.
4. Put mouthpiece between the teeth and close lips around it. Do not block opening with your tongue.
5. Press down once on the inhaler.
6. Continue breathing in slowly for 3-5 seconds.
7. Hold breath for 10 seconds to get medication deep into the lungs.
8. Wait 1 to 2 minutes between puffs before repeating a dosage if directed.
9. When using a steroid (controller) inhaler, rinse mouth afterward.





Care and Cleaning of a Metered Dose Inhaler

1. Look inside the mouthpiece of the inhaler.
2. If you see “powder” debris in or around the spray outlet, clean the inhaler. Ideally, clean once/day for routine-use inhalers.
3. After removing the metal canister, clean the plastic case and cap by rinsing thoroughly with warm, running water.
4. Dry thoroughly, or let dry overnight. When dry, place the canister firmly back inside the plastic case and put the cap on.
5. Store between 2° and 30°C (36° and 86°F). Store canister with nozzle end down. Protect from freezing temperatures and direct sunlight.
6. For best results, the canister should be at room temperature before use.



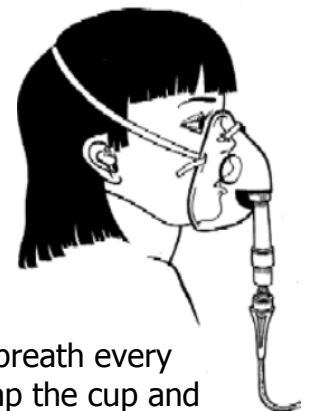
How to Use the Compressor-Driven Nebulizer

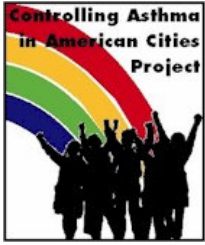
Assembling the Nebulizer:

1. Wash your hands.
2. Remove all nebulizer parts from the plastic bag, including mask/mouthpiece, flex tubing, nebulizer cup, and connecting tubing.
3. Check to ensure written order for medication is available from health care provider
4. Assemble the nebulizer by attaching the t-piece to the nebulizer cup, and then attaching flex tubing to one end of the t-piece and mouthpiece or mask to the other end.
5. Attach connecting tubing to the outlet on the bottom of the nebulizer cup. Attach the other end of the tubing to the outlet on the nebulizer compressor.

Using the Nebulizer:

1. Sit upright in a comfortable chair. An infant or small child may be held upright on a lap or in arms.
2. Place mouthpiece in the mouth or place mask on infant or child.
3. Turn switch on compressor to the "on" position.
4. Breathe normally through the mouthpiece or mask, taking a deep breath every minute or so. Continue until neb cup begins to sputter. Shake or tap the cup and continue breathing through the mouthpiece/mask until nearly all liquid in neb cup is gone.





Nebulizer Care and Cleaning

After each treatment

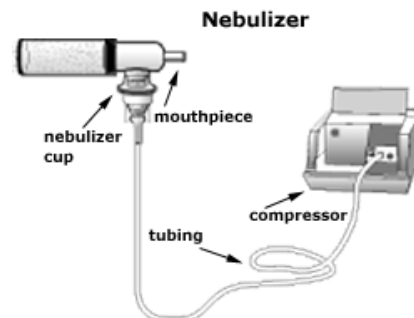
Rinse cup, mask and mouthpiece.

Every Day, if using Nebulizer machine

Wash the Nebulizer, mask, and cup in warm soapy water. Rinse well and air dry.

At least once per week if using Nebulizer routinely:

- Step 1: Wash your hands. Hands must be clean prior to handling supplies and solutions. Wash hands before any procedure.
- Step 2: Remove the mask/mouthpiece, flex/tubing and nebulizer cup.
- Step 3: Disassemble the nebulizer cup and empty it.
- Step 4: Wash parts in warm water with a mild liquid detergent and rinse well.
- Step 5: Soak for 20 to 30 minutes to disinfect in a solution of one part white vinegar to three parts water. Use new solution each time.
- Step 6: Remove from solution and rinse in warm running water
- Step 7: Shake off excess moisture. Place nebulizer parts on a paper towel to dry. Cover with another paper towel to keep dust free. Once all parts are completely dry, store in a sealed plastic bag.
- Step 8: Wipe air tubing with warm soapy cloth.
- Step 9: Check air filter



CARING FOR KIDS WITH ASTHMA

PARTICIPANT EVALUATION

In order to demonstrate how effectively the American Lung Association of Minnesota and the Controlling Asthma in American Cities Project are providing training and resources to childcare providers, we are asking participants in this training to complete the following post-training survey.

Please circle one choice for each of the following questions. If you have comments related to one of the questions, please write them in the space provided after each question.

1. How many *kids with asthma* do you care for right now? _____

2. Which parts of this training were most useful to you? (Check all that apply.)

- What is asthma
- Signs and symptoms of respiratory distress
- When to give medications
- How to use equipment
- How to make environmental modifications
- Other: _____

Comments:

3. How satisfied were you with the amount of information you received in this training?	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	I Don't Know
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Comments:

4. How satisfied were you with the quality of the information you received in this training?	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	I Don't Know
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Comments:

5. How satisfied were you with the organization of the training?	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	I Don't Know
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Comments:

6. How satisfied were you with the relevance of this training to your work?	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	I Don't Know
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Comments:

OVER

7. How satisfied were you with the written materials provided in this training? <i>Comments:</i>	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	I Don't Know
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8. The information presented increased my knowledge in working with children with asthma. <i>Comments:</i>	Strongly <i>Disagree</i> 1	2	3	4	Strongly Agree 5
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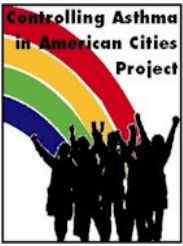
9. The program was useful in preparing me to care for a child with asthma. <i>Comments:</i>	Strongly <i>Disagree</i> 1	2	3	4	Strongly Agree 5
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10. Overall, how satisfied were you with the training? <i>Comments:</i>	Very Satisfied	Somewhat Satisfied	Somewhat Dissatisfied	Very Dissatisfied	I Don't Know
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12. How likely is it that you will use what you learned during this training in your work? <i>Comments:</i>	Very Likely	Somewhat Likely	Not Very Likely	Not at All Likely	I Don't Know
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13. Do you have any other suggestions for improving the in-service?

Thank you for completing the survey!



Caring for Kids with Asthma
Training Program for Childcare Providers

Program Reporting Form

As you deliver the *Caring for Kids with Asthma* program in your community, we ask that you provide us with your feedback. After you have delivered this program, please complete this form and send it to us at the address provided below.

1. How many times have you implemented this program? In what type setting? Who was your target audience?

2. How many participants attended each session?

3. Based on your evaluation methods, please describe the success of your program.

4. What problems or issues did you encounter in delivering the program?

5. From your experience delivering this program, please describe any recommendations for changes or modifications to the curriculum.

**Please mail this form to: American Lung Association of Minnesota, ATTN Jill Heins,
490 Concordia Ave, Saint Paul, MN 55103**