

LESSON

Asthma Basics

Wee Breathers™

*Asthma Education for
Families with Young Children*



Asthma and Allergy
Foundation of America

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LESSON 1 Asthma Basics

NOTES

CONTENT OUTLINE

This lesson is one of seven lessons on asthma management topics. Each lesson is designed to be taught one-on-one with a family by a home visitor or to a group of parents with young children who have asthma by a health professional in a child care setting.

Getting Ready

Things to Do

- Read the session carefully until you are comfortable with delivering the content. Jot down any notes that may help you.
- Gather all supplies needed for the session. See the *Materials, Equipment, and Supplies* section for more information.
- Make copies of handouts.
- Confirm session date and time.

Lesson Objectives

By the end of this lesson, participant(s) will be able to:

- define asthma;
- recognize three signs or symptoms of asthma; and
- recall one reason why learning how to manage asthma is important.

Agenda

- | | |
|-------------------------------|------------|
| • Greeting & Overview | 10 minutes |
| • What is Asthma? | 10 minutes |
| • Activity: Asthma Simulation | 10 minutes |
| • What Does Asthma Feel Like? | 10 minutes |
| • Facts About Asthma | 10 minutes |
| • Summary & Questions | 10 minutes |

Total Time: 60 minutes



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CONTENT OUTLINE

Materials, Equipment, and Supplies

- Drinking straws (one per participant)
- Pencil or pen (one per participant)

Teaching Tools

- TT #1: The Lungs
- TT #2: Pre/Post-Test Answer Key

Handouts

- HO #1: Pre-Test
- HO #2: Red Light, Green Light: Signs of Asthma (print in color only)
- HO #3: Post-Test

Recommended Resources

Asthma and Allergy Foundation of America
www.aafa.org or www.asmaalergia.org (Spanish)

Centers for Disease Control and Prevention
www.cdc.gov/asthma

Guidelines for the Diagnosis and Management of Asthma (EPR-3)
www.nhlbi.nih.gov/guidelines/asthma

Asthma Care Quick Reference: Diagnosing and Managing Asthma
www.nhlbi.nih.gov/guidelines/asthma/asthma-qrg.pdf

Environmental Protection Agency
www.epa.gov/asthma

American Academy of Allergy, Asthma & Immunology
www.aaaai.org/conditions-and-treatments/asthma.aspx

American College of Allergy, Asthma & Immunology
www.AllergyandAsthmaRelief.org

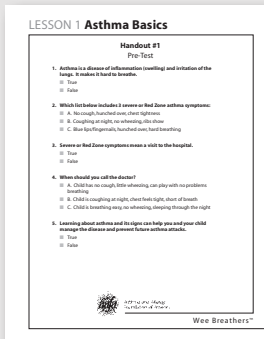


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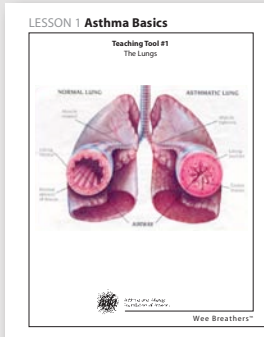
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10 mins.



10 mins.



CONTENT OUTLINE

Greeting & Overview

- Introduce yourself and get acquainted with the participant(s).
- Explain that you are going to discuss the following:
 - What is asthma?*
 - What does asthma feel like?*
 - Why is it important to control asthma?*

HO #1: Pre-Test

- Distribute the pre-test and allow 5 minutes for completion. Collect it when finished.

What is asthma?

- Asthma is the most common chronic (long-term) condition among children.¹
- Over 7 million children have asthma. That is equal to 1 in 11 children.²
- In children, boys are more likely to have asthma than girls.²
- Low-income and minority children bear the heaviest burden of asthma.³
- African-American children are 2 times more likely to have asthma than white children.²
- Nearly 1 in 2 children with asthma miss at least one day of school each year because of their asthma.²
- Explain that asthma is a chronic (long-term) lung disease that cannot be cured.
- Refer to **Teaching Tool #1: The Lungs**.

¹Wang L, Zhong Y, Wheeler L. Direct and indirect Costs of asthma in school-age children. Prev Chronic Dis. 2005 Jan. Available from http://www.cdc.gov/pcd/issues/2005/jan/04_0053.htm

²Asthma's Impact on the Nation: Data from the CDC National Asthma Control Program. Retrieved from http://www.cdc.gov/asthma/impacts_nation/AsthmaFactSheet.pdf

³Akinbami, L.J., Mooreman, J.E., Bailey, C., Sahran, H., King, M., Johnson, C., & Lui, X. Centers for Disease Control and Prevention, National Center for Health Statistics. (2012). Trends in asthma prevalence, health care use, and mortality in the United States, 2001- 2010. Retrieved from <http://www.cdc.gov/nchs/data/databriefs/db94.pdf>



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10 mins.

CONTENT OUTLINE

- Describe how we breathe.

*Inside the lungs are tubes, called **airways (bronchial tubes)**, that look like upside-down trees.*

*When we breathe in, air moves down a large hollow tube in the front of the neck (**windpipe or trachea**) through the bronchial tubes.*

At the end of each airway are tiny air sacs that fill up with air, like tiny balloons, each time we breathe in.

*Fresh air comes into our lungs each time we breathe in. This fresh air has **oxygen** in it.*

Oxygen has a special job. Its job is to help feed, or give energy to, all the parts of our body so we can walk, talk, eat, and play.

- Emphasize that asthma is inflammation (swelling) and irritation in the lungs.

People with asthma may describe their lungs as sensitive or “twitchy.”

When something bothers their lungs, they have trouble breathing.

It gets harder and harder to get air in and out because the tiny muscles around their airways pinch very tight and the air can't move in and out.

There is also a lot of swelling inside the tubes and more mucus being made inside the bronchial tubes, which makes it even harder to breathe.

Activity: Asthma Simulation

- Distribute straws to everyone and tell them that you have a fun way to show how we breathe.
- Provide the following instructions and ask participant(s) to follow along as you demonstrate.

Put the straw in your mouth.

Blow air into it like you are trying to blow bubbles in a glass of water or move pieces of paper on the table.

Put your hand near the bottom. Can you feel the air coming out of the bottom of the straw?

Now pinch the middle of the straw, and try to blow air out of the straw again.



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10 mins.

CONTENT OUTLINE

- Ask participant(s):
Is there any difference in the air coming out?
Do you have to blow harder to get the air through the straw?
Can you move the pieces of paper on the table? Why not?
- Explain that if the tube is pinched, not as much air can come through the straw. The opening for the air gets smaller. The same thing happens to your child's lungs when he or she has an asthma attack.
- Begin to transition to the next topic by sharing that these changes in the lungs can make your child cough and wheeze.

What does asthma feel like?

- Explain that the main symptoms of asthma are:
Coughing – with or without mucus
Wheezing – a whistling noise when you breathe
Chest tightness – a feeling that something is squeezing or sitting on your chest
Shortness of breath – not being able to catch your breath
- Explain that the symptoms are a sign of how bad the asthma is.
We can think of the symptoms like a stop light.
Red means "stop" – Go to the hospital and follow your Asthma Action Plan
Yellow means "slow down" – Follow your Asthma Action Plan and call the doctor
Green means "go" – Keep doing what you are doing

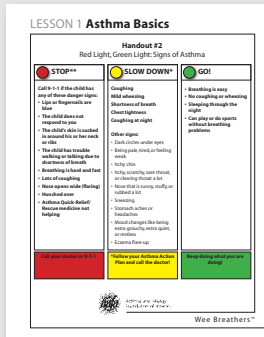
Note: If no Asthma Action Plan is available, encourage the family to obtain one from their child's doctor or asthma educator.



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10 mins.

CONTENT OUTLINE

HO #2: Red Light, Green Light: Signs of Asthma

- Review **HO #2**. (This handout must be printed in color for the participant to understand the comparison of asthma symptoms to a stop light.)
- Symptoms of asthma are reversible. Symptoms of asthma can be relieved or controlled with medicine and by staying away from things that set off the asthma (called "triggers"). Asthma medicines and triggers are discussed in other lessons.

Facts about Asthma

- Remind everyone that asthma is a chronic (long-term) disease and we do not know for sure what causes asthma. There are periods when the disease is active, called an **attack** (episode), and periods when children have few or no symptoms, sometimes called **remissions**.

During these periods without symptoms, you may believe, or be told, that the child has "outgrown" his or her asthma. However, children with a history of asthma, especially in the presence of allergies or eczema, are likely to continue to have airways that are sensitive and may have symptoms that come back during adulthood. Continue to follow your doctors orders for your child's asthma.

- There is no cure for asthma, but it can be controlled.
- The **goal of asthma control** is:
 - No coughing, wheezing or chest tightness.*
 - No difficulty breathing.*
 - No waking up at night because of asthma symptoms.*
 - Normal activities such as play, sports, exercise, or other school or child care activities.*
 - No acute episodes of asthma that require a trip to the doctor, emergency department, or urgent care.*
 - No absences from school or activities.*
 - No missed time from work or other activities for the parent or caregiver.*
 - Normal (or near normal) lung function.*

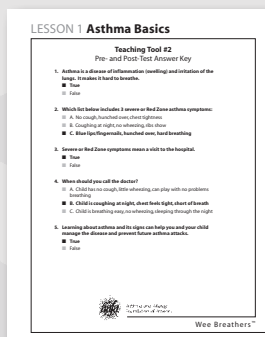
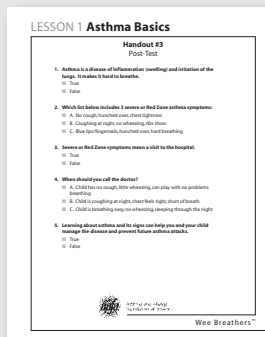


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10 mins.



CONTENT OUTLINE

- The **goal of asthma treatment** is:
*To **prevent** symptoms when possible;*
*To **act quickly** if symptoms occur; and*
*To **keep** the symptoms from getting worse.*
- Learning about asthma and its signs can help you and your child manage the disease and work to prevent future asthma attacks.

Summary & Questions

- Ask participant(s) to summarize what you have discussed today.
Correct any misinformation and emphasize key points.
- Share local and national asthma resources with the participant(s).
- Answer any questions.

HO #3: Post-Test

- Distribute post-test and allow 5 minutes for completion.
Collect when finished.
Review questions and answers.
Correct any misinformation and emphasize key points.
- Share local and national asthma resources with the participant(s).
- Confirm next session date and time, if appropriate.
- Thank participant(s) for participating.

After the Session

Things to Do

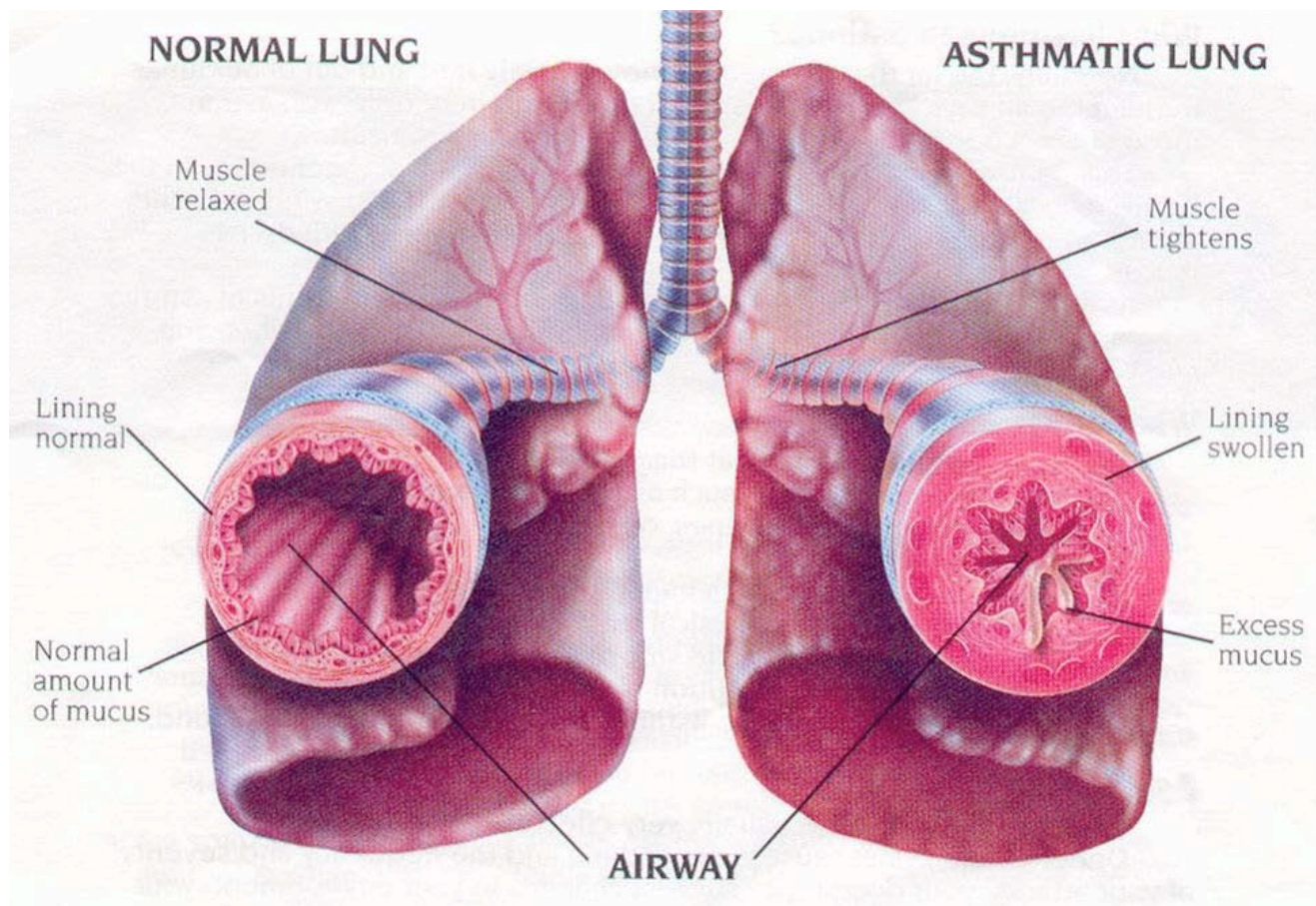
- Grade pre- and post-tests, using **Teaching Tool #2: Pre- and Post-Test Answer Key**. Plan to review and emphasize key messages, as indicated, at next session.
- Schedule next session, if appropriate.



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Teaching Tool #1 The Lungs



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Teaching Tool #2 Pre- and Post-Test Answer Key

- 1. Asthma is a disease of inflammation (swelling) and irritation of the lungs. It makes it hard to breathe.**
 - True
 - False
- 2. Which list below includes 3 severe or Red Zone asthma symptoms:**
 - A. No cough, hunched over, chest tightness
 - B. Coughing at night, no wheezing, ribs show
 - C. Blue lips/fingernails, hunched over, hard breathing
- 3. Severe or Red Zone symptoms mean a visit to the hospital.**
 - True
 - False
- 4. When should you call the doctor?**
 - A. Child has no cough, little wheezing, can play with no problems breathing
 - B. Child is coughing at night, chest feels tight, short of breath
 - C. Child is breathing easy, no wheezing, sleeping through the night
- 5. Learning about asthma and its signs can help you and your child manage the disease and prevent future asthma attacks.**
 - True
 - False



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Handout #1

Pre-Test

- 1. Asthma is a disease of inflammation (swelling) and irritation of the lungs. It makes it hard to breathe.**
 - True
 - False
- 2. Which list below includes 3 severe or Red Zone asthma symptoms:**
 - A. No cough, hunched over, chest tightness
 - B. Coughing at night, no wheezing, ribs show
 - C. Blue lips/fingernails, hunched over, hard breathing
- 3. Severe or Red Zone symptoms mean a visit to the hospital.**
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- 5. Learning about asthma and its signs can help you and your child manage the disease and prevent future asthma attacks.**
 - True
 - False



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Handout #2

Red Light, Green Light: Signs of Asthma



STOP**

Call 9-1-1 if the child has any of these danger signs:

- Lips or fingernails are blue
- The child does not respond to you
- The child's skin is sucked in around his or her neck or ribs
- The child has trouble walking or talking due to shortness of breath
- Breathing is hard and fast
- Lots of coughing
- Nose opens wide (flaring)
- Hunched over
- Asthma Quick-Relief/Rescue medicine not helping

Call your doctor or 9-1-1



SLOW DOWN*

Coughing

Mild wheezing

Shortness of breath

Chest tightness

Coughing at night

Other signs:

- Dark circles under eyes
- Being pale, tired, or feeling weak
- Itchy chin
- Itchy, scratchy, sore throat, or clearing throat a lot
- Nose that is runny, stuffy, or rubbed a lot
- Sneezing
- Stomach aches or headaches
- Mood changes like being extra grouchy, extra quiet, or restless
- Eczema flare-up

***Follow your Asthma Action Plan and call the doctor!**



GO!

- Breathing is easy
- No coughing or wheezing
- Sleeping through the night
- Can play or do sports without breathing problems

Keep doing what you are doing!



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Handout #3

Post-Test

- 1. Asthma is a disease of inflammation (swelling) and irritation of the lungs. It makes it hard to breathe.**
 - True
 - False
- 2. Which list below includes 3 severe or Red Zone asthma symptoms:**
 - A. No cough, hunched over, chest tightness
 - B. Coughing at night, no wheezing, ribs show
 - C. Blue lips/fingernails, hunched over, hard breathing
- 3. Severe or Red Zone symptoms mean a visit to the hospital.**
 - True
 - False
- 4. When should you call the doctor?**
 - A. Child has no cough, little wheezing, can play with no problems breathing
 - B. Child is coughing at night, chest feels tight, short of breath
 - C. Child is breathing easy, no wheezing, sleeping through the night
- 5. Learning about asthma and its signs can help you and your child manage the disease and prevent future asthma attacks.**
 - True
 - False



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