



Managing Asthma in the Classroom

Professional Development

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How has **asthma** had an impact in your classroom?

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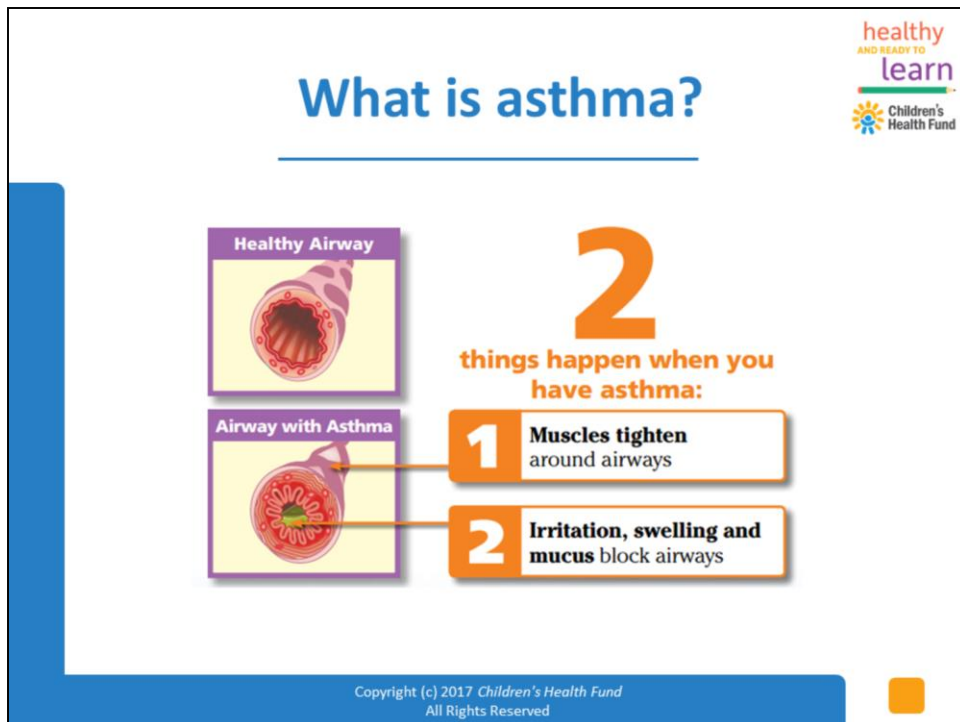
Facilitator Notes: Have 2-3 educators discuss times when asthma has “disrupted” their classroom

Today's Objectives

- Understanding the effects of Asthma in the classroom
- Recognizing students with uncontrolled asthma
- Creating a trigger-free school environment



Facilitator Notes: In this session we will... (read through the takeways) click for bullet points



Facilitator Note:

Asthma is a chronic disease of the lungs. If a student with asthma is exposed to certain triggers or irritants, symptoms may flare, making it difficult to breathe.

In asthma, 2 major things happen.

- 1) Muscle squeezing, which can happen suddenly-like in an asthma attack
- 2) Irritation, swelling, and production of extra mucus-which can worsen over time if not treated, causing daily symptoms

Asthma symptoms can come and go, but asthma is a chronic disease that can be managed but not cured. For some people, symptoms can become quite infrequent certain times of the year, as they get older, or when in environments with less triggers, but you don't out grow it and it doesn't go away. Asthmatics should be sure they still have access to their rescue inhaler even if they rarely have symptoms. (outgrowing asthma is a common myth we hear. A lot of people don't even realize that it is compromising them when it is very mild or intermittent)

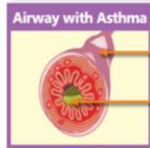
Image: CHF Asthma Guide

How does asthma work?



2

things happen when you
have asthma:



1 Muscles tighten
around airways

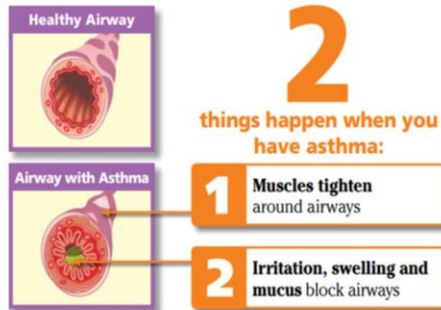
2 Irritation, swelling and
mucus block airways

When airways get too tight,
a child can't breathe.

Get medicine and help immediately.



How does asthma work?



Straw Activity:

What does an asthma attack feel like?

Instruction: The objective of this activity is to see how it feels to have an asthma attack by breathing through a straw. Have participants take a straw. Have them plug their nose using their thumb and middle finger. Next have them blow air through the straw.

Effect of Asthma on Students



About **8%** of children under 18 in the US have asthma

Rates may **double** in some low-income communities

Rates are higher in Non-Hispanic black children (13%) and Puerto Rican children (21%)

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Source: Retrieved from CDC website. http://www.cdc.gov/asthma/most_recent_data.htm All Rights Reserved. Source: 2013 National Health Interview Survey (NHIS).

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http://www.cdc.gov/asthma/most_recent_data.htm Source: 2013 National Health Interview Survey (NHIS).

Can anyone guess the rate of asthma in NYC?



Effect of Asthma on Students

In New York City, **30%** high school students in high-risk areas reported having current asthma or had asthma at some point in their lives

- South Bronx – 35%
- North and Central Brooklyn – 31%
- East and Central Harlem – 31%

Source: New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System - NYC Youth Risk Behavior Survey 2013. DATE VIEWED: February 29, 2016. <http://nyc.gov/health/epiquery>

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Effect of Asthma on Students



Asthma and Absences

- There is a strong association between asthma and chronic absenteeism
- Nationally, **49%** of students with asthma have missed at least one day because of asthma complications
- **13.8** million school days are missed because of asthma in the United States

Source: Taras, H., & Potts-Datema, W. (2005a). Childhood asthma and student performance at school. *Journal of School Health*, 75, 296-312.
Source: http://www.cdc.gov/asthma/asthma_stats/aststatchild_missed_school_days.pdf

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Asthma is a leading cause of absences from schools. Students who miss school because of uncontrolled asthma may fall risk of becoming chronically absent. However, if asthma is well managed, students can spend more time in the classroom.

Taras, H., & Potts-Datema, W. (2005a). Childhood asthma and student performance at school. *Journal of School Health*, 75, 296-312.

CDC Factsheet "Asthma-related Missed School Days among Children aged 5 – 17 Years."

Link: http://www.cdc.gov/asthma/asthma_stats/aststatchild_missed_school_days.pdf Source:

National Health Interview Survey (NHIS), 2003, 2008, 2013: question, "During the past 12 months, how many days of [daycare or preschool, school, school or work] did child miss because of his/her asthma?"

CDC Factsheet: Asthma-related Missed School Days among Children aged 5 – 17 Years.

Link: http://www.cdc.gov/asthma/asthma_stats/aststatchild_missed_school_days.pdf

[ays.pdf](#) Source:

National Health Interview Survey (NHIS) 2013: question “During the past 12 months, how many days of [daycare or preschool, school, school or work] did child miss because of his/her asthma?”. Asked of children with current asthma as defined by which covers children (aged 5 through 17 years) who answered “yes” to the questions: “Have you ever been told by a doctor, nurse, or other health professional that you had asthma?” and “Do you still have asthma?”.

Effect of Asthma on Students

Asthma and Learning

- Students who experience asthma symptoms at night perform worse on tests of memory and concentration
- Coughing at night may also keep them up at night and cause sleepiness at school

Source: Stores, G., Ellis, A.J., Wiggs, L., Crawford, C., & Thomson, A. (1998). Sleep and psychological disturbance in nocturnal asthma. *Archives of Disease in Childhood*, 78, 413-419.

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Nocturnal asthma can affect a student's wellbeing the next day. Students may be fatigued or unfocused because of lack of sleep and lingering symptoms.

Stores, G., Ellis, A.J., Wiggs, L., Crawford, C., & Thomson, A. (1998). Sleep and psychological disturbance in nocturnal asthma. *Archives of Disease in Childhood*, 78, 413-419.

Recognizing Students with Asthma



Students may suffer from different symptoms at varying severities

Symptoms may include:

- Coughing
- Wheezing
- Trouble breathing or shortness of breath while a student is playing or exercising
- Chest tightness
- Fatigue/ Tiredness
- Loud breathing

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Source: Centers for Disease Control <http://www.cdc.gov/asthma/parents.html> All Rights Reserved



Symptoms in children could be mild or severe. Each student with asthma may not suffer from the same symptoms as his/her peer.

These are some symptoms that may be present in a child suffering from uncontrollable asthma. If you see a student suffer from one or more symptoms on a daily basis, you should see this as a red flag.

For some asthmatics, especially the younger ones, cough at night may be the only symptom they have, so their parents may not even realize they have asthma-but it can still be significantly disrupting their sleep

Asthma and the School Nurse

- The school nurse can help manage a student's asthma (with the right paperwork!)
- Help make sure families submit a signed MAF to the nurse so a student can be given asthma medication during school hours
- If you notice a student suffering from any signs and symptoms of asthma, send the student to the school nurse



Asthma Myths

- Students with asthma should not exercise
- Asthma eventually “goes away”
- Asthma medications are dangerous
- If a child uses a rescue inhaler too much, it will stop working



There are some common myths about asthma that may affect how a student and their family perceives the condition.

“Students with asthma should not exercise” - Children with well controlled asthma can (and should!) exercise and play. You should encourage parents to talk to their child’s doctor and the school nurse to make sure their asthma is controlled during the school day so students can play during gym class and recess.

“Asthma eventually “goes away” - Asthma may get better or worse as a child grows older. But, as a chronic disease, a child should keep visiting the doctor to make sure their asthma is well controlled.

“Asthma medications are dangerous” - A doctor will help but children on the right asthma medication regimen. Making sure you take the right medications at the right time will help students better control their asthma.

Creating a Trigger-Free Environment

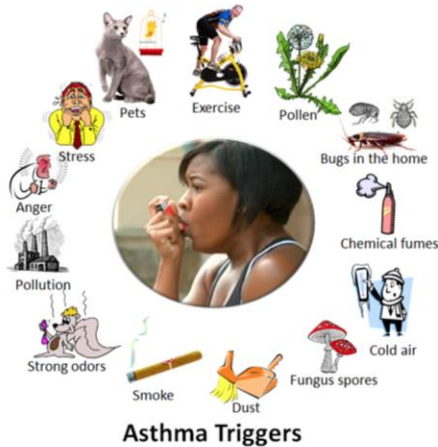


Image: https://upload.wikimedia.org/wikipedia/commons/9/97/Asthma_triggers_2.PNG

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Triggers include:

Allergens (pollen, pets, dust, cockroaches/bugs in the home, and fungus spores)

Irritants (cold air, chalk dust, strong odors (**like perfumes and markers**), pesticides, weather changes, and smoke)

Respiratory infections (cold or the flu)

Physical exercise especially in cold weather**

**While physical exercise may be an asthma trigger, proper management and treatment options can ensure students are engaging in physical activity (which promotes healthy lifestyles!)

Image Source:

https://upload.wikimedia.org/wikipedia/commons/9/97/Asthma_triggers_2.PNG

Creating a Trigger-Free Environment

- Triggers make asthma symptoms **flare up**.
- Can be found both **indoors** and **outdoors**.
- Helping a student **avoid triggers** helps with asthma control.
- Encourage students to wash their hands to prevent the spreading of sicknesses

COMMON TRIGGERS

INDOOR

- Dust / dust mites
- Cats, dogs, or other animals
- Rats or mice
- Cockroaches
- Mold

OUTDOOR

- Pollen
- Plants, flowers, grass, or trees
- Changes in weather or seasons

IRRITANTS

- Cigarette smoke
- Strong smells
(like cleaning products or perfumes)
- Air pollution or smog

OTHER

- Stress or worry
- Colds or sickness
- Exercise or play
- Food allergies
- Cold air



Creating a Trigger-Free Environment

What triggers may be present in your school or classroom?

COMMON TRIGGERS

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Facilitator Notes: Ask educators to think about what triggers could be present in the classroom or around the school.

Creating a Trigger-Free Environment



- Limit exposure to common triggers in your classroom (including ones that may be on your person such as perfume or cat hair)
- Work with appropriate school staff and administrators to eliminate school-wide triggers

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Be aware of chalk dust, strong odors (even the perfumes/cologne you wear and makers you use!), animal dander if you have a class pet, and plants you may have around the classroom. If you see students reacting negatively to these triggers, exposure to the triggers should be limited or eliminated.

Think. Pair. Share

- What can you do if you think a student has **uncontrolled asthma?**



Have educators pair off into groups of two and three to discuss strategies for working with children with uncontrolled asthma.

What you can do

- Talk to **your school nurse**. The nurse can help work with the student's family and physician.
- **Discuss** triggers and ways you see asthma impacting students learning with parents (i.e. attendance, sleepiness)
- **Observe** students in your classroom who have asthma to better understand their individual triggers and symptoms

In New York City, school nurses help manage asthma for students. School nurses can work with families and other school staff to make sure students with Asthma have a completed MAF and Asthma Action Plan.

Knowing which students have asthma and tracking their symptoms could help you understand if specific triggers are impacting your student's well being and worsening symptoms.

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Questions?



(old pic) Source:

<http://www.fda.gov/BiologicsBloodVaccines/ResourcesforYou/Consumers/ucm345587.htm#vaccines>

Thank you!

If you would like to see other asthma resources or find information on additional **Health Barriers to Learning**, please visit the **Healthy and Ready to Learn Resource and Training Center** at www.hrl.nyc