

ASTHMA BASICS (ADULTS & CHILDREN)

Statement of the Problem

Twenty-two million people in the United States are affected by asthma. It is the most common chronic disease in childhood affecting more than 6 million children.

Asthma is a chronic disorder of the airways that is characterized by variable and recurring symptoms which involve airflow obstruction, inflammation and an exaggerated Broncho constrictor response to a wide variety of stimuli. There is no cure for asthma, but its symptoms can be managed with medication.¹

Background

WHAT IS ASTHMA?

Asthma is a chronic disease that affects one's ability to breathe normally. In fact, asthma is a serious and sometimes scary condition that may require a visit to the emergency room and if untreated could lead to death. While asthma cannot be cured, it can be controlled.

There is no clear way to predict how asthma will affect a patient in the long-term. While some people with asthma may have fewer (or even no) symptoms when they grow older, others will continue to be affected throughout the length of their life.

Asthma makes it difficult to breathe. This is because:

- The lining of the airways swell
- Muscles around the airways gets tighter and makes the airways narrow
- Mucus clogs the airways

When these things happen, people begin wheezing, coughing, and experience shortness of breath or feel their chest tighten. Wheezing, coughing and shortness of breath are some of the most common symptoms of asthma.

Asthma can be triggered by things like pollen, dust mites, mold, cats, dogs, rodents, cockroaches, changes in climate, cigarette and other types of smoke, strong odors, air pollution, exercise, and colds and other infections. While emotions do not cause asthma, stress, crying or laughing can set off an asthma attack. It is important to know what triggers cause an asthma attack and to develop a plan to avoid them.

ASTHMA MEDICATIONS

There is no cure for asthma. However, medications can help control it. This is because medications can help decrease the production of mucus and swelling. Medications also relax the muscles which are tightening up and narrowing the airway to allow more air to flow to the lungs.

There are *two* main types of asthma medicines:

- 1) **Controller** medicines, sometimes called “daily preventative medicines.” These are taken every day --- even if the asthmatic feels good --- and can help prevent asthma attacks. Think of them as a vitamin to keep asthma away. Controller medicines work by decreasing mucus and swelling from developing which aid in normal breathing. Controller medications take about 3 weeks to become effective.
- 2) **Reliever** medicines (sometimes called “rescue” or “quick relief”). These are taken when symptoms occur. Reliever medications work by relaxing the airway muscles quickly allowing the patient with asthma to breathe better. ***Note: if a patient is using reliever medicines more than twice a week, their asthma might not be under control and they should be advised to talk to their provider.**

Both controller and reliever medicines need to be used properly to be effective. A device, such as a spacer/holding chamber can help make sure the participant is getting the full dose of medicine when taking it.

If the patient has frequent asthma symptoms, or asthma episodes, have the patient talk with their provider about the medications they are taking and how they are taking them. Make sure they understand what their doctor is prescribing and how they should be taking it.

Asthma action plan

It is important to pay attention to asthma. If not treated properly, asthma can limit the ability to participate in activities, affect success in work or school, interfere with family activities, and even lead to visits to the emergency room, or in some cases death.

Good control of asthma should be encouraged. **“Good control”** means:

- Participating in work, play, physical activity and sports normally
- Living free from symptoms, day and night
- Being able to avoid serious episodes that lead to urgent clinic visits, emergency room visits, hospitalizations, missed school days, and missed work.

Advise the participant to talk with their doctor about creating an “Asthma action plan” -- a set of instructions on how best to manage their asthma, how to respond appropriately to an asthma attack and help them understand what to do if asthma symptoms or peak flow get worse.

Monitoring Asthma

Monitoring asthma symptoms is important because it can prevent a serious asthma attack. Patients can monitor their asthma in *two* ways:

- 1) By recognizing asthma symptoms.
- 2) By monitoring the amount of air they are breathing in and out with a peak flow meter.

If the participant continues to have frequent asthma symptoms and/or attacks or when peak flow worsens, encourage them to talk with their provider about the medications they are taking and review how they are taking them.

CHW Assessment

Questions to ask participant:

- 1) “Tell me what you know about asthma?”
 - a. (What have you learned from your (participant)’s healthcare provider or asthma nurse? (Listen or prompt for an understanding of how asthma affects the lungs and that asthma is a chronic disease. Also listen/prompt for proper use of medicines, inhaler technique, action plan, triggers, and self-monitoring).
- 2) “What more would you like to know or understand better about asthma?”
- 3) “How is (participant)’s asthma doing?”
- 4) “During the last **2 weeks**, how many days or nights did (participant) have any asthma symptoms, like wheezing, coughing, shortness of breath or chest tightness?”
- 5) “During the past **3 months**, how many times did (participant) stay overnight in the hospital, or go to the emergency room, or have to go right to the clinic because of asthma that was getting worse?”
- 6) “During the past **3 months**, has (participant) slowed down during play or not participated in usual activities because of asthma?”
- 7) “Has your asthma interfered with (participant)'s activities (like going to work or school getting things done around the house) or those of the family?” “How?”
- 8) “Are there any other ways in which your asthma has affected you?”

- 9) “What are *one* or *two* things you’d like to see change about the way asthma now affects school/work?”
- 10) “If a participant is a child: during the past three months, has (participant) missed **more than 5 days** of school because of asthma or asthma-related symptoms?”
- 11) “Has (participant)’s asthma interfered with your activities (like going to work or getting things done around the house or those of the family?” “How?”
- 12) “What is *one* or *two* things you would like to do now to help control (participant)'s asthma better?”
- 13) “Probe to identify priorities. Explore how life would be improved if asthma was better control”

Messages for Adults and Children

- Asthma is a chronic illness that can’t be cured, but it can be managed.
- It is important to pay attention to asthma. If not treated properly it can limit activities, lead to ER visits, and even can cause death.
- Asthma affects the airways.
- Triggers cause narrowing, swelling, and mucus production in the airways.
- Swelling blocks the airways and it’s hard to get air into and out of the lungs.
- Swelling can cause asthma symptoms such as wheezing, coughing, shortness of breath or chest tightness.
- Know the participant's triggers and develop a plan to keep away from them.
- Triggers include, but are not limited to:
 - Dust mites
 - Mold
 - Cats
 - Rodents
 - Roaches
 - Tobacco smoke
 - Pollens
 - Strong chemical odors
- There are *two* types of medications: **Controller** (use daily) and **Reliever** or rescue (use with symptoms). Good technique is essential. Taking them exactly as prescribed is essential.
- Good control means no symptoms day or night, participating in all activities, no ER visits or hospitalizations or missed school/work.
- Observe asthma symptoms and track them. Monitor the participant’s asthma. Follow the asthma action plan which was given to them by their provider. (Explain what a peak flow meter is if necessary and let the participants know you will talk more about this later.)
- Let participant know peak flow is not necessary if they continue to be observant. It is useful when symptoms escalate quickly, to test if other spaces outside the home could be making

asthma worse (school, work, child care, other home), and if participant is minimizing their symptoms.

MESSAGES FOR CAREGIVERS OF CHILDREN

- Take time to communicate daily with your child about home, school and child-care triggers s/he has noticed.
- If your child is **6 years old or older**, use a peak flow meter if symptoms are getting worse or if in the past you don't always know when asthma is getting worse and attacks sneak up.
- Parents and their providers are partners in keeping the child healthy. If symptoms worsen, or don't improve, they should call their provider. Talk with the provider about the medications being taken and how they are being taken. Always schedule and keep follow-up appointments.
- Widen your asthma team: Other important people you want on your asthma team besides you, your child and your child's provider are your child's teachers, PE teacher, child care center teachers and administrators, school nurses, clinic nurses and specialists. Be sure to communicate with them.

Actions

CHW ACTIONS

CHILD	ADULT
<ul style="list-style-type: none"> • Review basic lung function and basic asthma physiology using diagrams as needed and based on an assessment of participant knowledge. • Assess level of asthma control by reviewing asthma symptoms, number of urgent clinic visits, ED visits & hospitalizations in the past year. • Teach about asthma triggers. • Teach about the <i>two</i> types of asthma medications, relievers and controllers. 	<ul style="list-style-type: none"> • Review basic lung function and basic asthma physiology, showing diagrams to patient as needed, based on assessment of participant knowledge. • Assess level of control by reviewing asthma symptoms and number of urgent clinic visits, ED visits and hospitalizations in the past year. • If asthma has led to any of the following, suggest that the participant contact their doctor or nurse and let the CHW know: <ul style="list-style-type: none"> ○ Persistent asthma symptoms (symptoms more than 2 days per week) Any ED

	<p>visits/hospitalizations or 2 or more urgent clinic visits in the past 3 months.</p> <ul style="list-style-type: none"> ○ Slowing down and not participating in usual activities. ○ Missing more than 5 days of work or school in the past three months. ○ Disruption of caregiver or family activities.
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CAREGIVER/PATIENT ACTIONS

Participant should be able to:

- Communicate an understanding of the changes in the lungs that occur with asthma.
- Communicate an understanding of what to expect from good asthma control.
- Identify when to contact the doctor or nurse and understand why and when it is important to communicate with them.
- Identify personal triggers.

Describe own medications and when/how to take them properly.

CHW Follow-Up Visits

Determine level of control at every future visit.

MONITORING ASTHMA CONTROL FOR ADULT

Ask the participant:

- 1) “During the daytime in the **last 14 days**, how many days did (participant) have asthma symptoms, such as wheezing, shortness of breath, or tightness in the chest, or cough?”

- 2) “During the nighttime in the **last 14 nights**, how many nights did (participant) wake up because of asthma symptoms, such as wheezing, shortness of breath, or tightness in the chest, or cough?”

- 3) "How many asthma-related visits has (participant) made to the doctor, hospital or emergency room **since we last spoke**?"
 _____ doctor _____ hospital _____ ER
- 4) "How many days of school has (participant) missed in the **last month**?" _____
- 5) "Do you have any updates about (participant's) medication since **we last spoke**, such as changes in the medications, refills, running out of them, etc.?" _____
- 6) "How does the participant look?" _____
- 7) Optional: "How many refills for (participant's) rescue medications have you made in the **last year**?" _____
- 8) Progress on self-management goals _____

MONITORING ASTHMA CONTROL FOR CHILD

Ask the caregiver:

- 1) "Has your child's asthma awakened you at night or early morning? How many times in the past **14 days**?" _____
- 2) "Has your child needed more quick-relief bronchodilator medication (reliever med) than usual? How many times in the past **14 days**?" _____
- 3) "Has your child needed any urgent medical care for asthma, such as unscheduled visits to your doctor, an urgent care clinic, or the emergency room **since we last spoke**?"

- 4) "Is your child participating in your usual or desired activities?" _____
- 5) "If your child is using your peak flow, has it been below (his/her) personal best?"

Supplies

- CHW encounter form.

Education Handouts

- Patient and Family Education: What is Asthma?
<http://www.kingcounty.gov/healthservices/health/chronic/asthma/resources/~media/health/publichealth/documents/asthma/WhatIsAsthma.ashx>
- Patient and Family Education: Asthma Triggers for Children and Families.
<http://www.kingcounty.gov/healthservices/health/chronic/asthma/resources/~media/health/publichealth/documents/asthma/AsthmaTriggers.ashx>

- (Video) Asthma: What Happens in your Lungs

<https://media.healthwise.net/html/kbnet.002vl.enus/abo2359/en-us/55138bbef6c2e6be584c52729a973dc6702eca>

Referrals

Health Care Provider

ⁱ Expert Panel Report pages 1, 12