



NATIONAL CENTER ON
Early Childhood Health and Wellness



Asthma

Asthma is a leading chronic illness among children and youth in the United States with nearly 7.¹ million asthma sufferers under the age of 18. Children living below the poverty level, children in the Northeast, African Americans, and Puerto Ricans, have higher rates of asthma.² It can disrupt a child's sleep, ability to concentrate, memory, and participation in program activities, and is a leading cause of missed school days. Head Start and Early Head Start programs can partner with health care providers and families to reduce children's exposure to triggers, recognize early warning signs, promptly treat asthma symptoms, and prevent asthma episodes.

1. American Lung Association Asthma and Children Factsheet
<https://www.lung.org/lung-health-and-diseases/lung-disease-lookup/asthma/learn-about-asthma/asthma-children-facts-sheet.html>
2. Centers for Disease Control and Prevention, Breathing Easier.
https://www.cdc.gov/asthma/pdfs/breathing_easier_brochure.pdf

Normally the airways to our lungs are fully open when we breathe, allowing the air to move in and out. Children who have asthma have very sensitive airways that can become inflamed easily. During an asthma episode, young children with asthma may cough, wheeze, experience chest tightness or pain, shortness of breath, and lack of energy. These symptoms are due to inflammation and tightening of the airways in the respiratory system.

Asthma affects each child differently. The triggers for asthma episodes, the signs and symptoms, treatment needed, and the severity all differ based on the individual child. Some children have repeated episodes or "attacks," and need daily medications and modified activities. Others may only need medication during an asthma episode. Children's asthma is commonly



characterized as “mild,” “moderate,” or “severe,” but it can remain constant in severity, can come and go, or change over time. The health manager plays a pivotal role in implementing a plan, sometimes referred to as an Asthma Action Plan, to ensure a child who has asthma is able to participate successfully in all program activities. Additionally, the health manager is integrally involved in communicating with the family.

Health care providers might be reluctant to diagnose a young child with asthma. Prior to a diagnosis of asthma, a child may have another diagnosis such as reactive airway, bronchiolitis, or frequent upper respiratory infection requiring nebulizer treatments. As the family and medical home learn about a child’s symptoms, it is important programs share what signs and symptoms show improvement (with medication treatment) as well as worsen (during different triggers) to help in identifying patterns.

Programs should be aware of medication changes, even if not given in the program, so they can support the family in sharing appropriate information with the medical home. Staff can support families and the medical home by carefully observing children, recording their observations on the Daily Health Check, and sharing these reports with the child’s family and the provider.

Triggers

A trigger is something that causes asthma symptoms. Each child has his or her own set of triggers. When a program knows what they are, staff can work to minimize the child’s chance of exposure to these triggers.

Common triggers include:

- Dust mites (found in carpet, clothes, stuffed toys and fabric-covered items)
- Secondhand smoke
- Pollen (some children will have asthma flare-ups in the spring when the pollen counts are high or when grass is freshly cut, especially if windows are left open)
- Mold
- Animal dander
- Pollution/Air Quality (outdoor air pollution, including diesel exhaust from school buses, can cause asthma episodes. Poor outdoor air quality can also be a problem)
- Cleaning supplies and pesticides
- Perfume and cologne (consider developing a policy that does not allow staff to wear perfumes)
- Temperature and weather changes
- Physical activity (referred to as exercise-induced asthma)
- Respiratory infections, flu, and colds (most common cause of asthma episodes).
- Foods (typically accompanied by additional symptoms such as hives, rash, vomiting, and diarrhea)



Supporting Children With Asthma

The Head Start program, family, and medical home should routinely communicate to ensure proper care for children with asthma. Head Start programs can support family strengths by recognizing parents know a great deal about their child and can educate staff about how best to care for their child. For example an older child may be able to tell a teacher if his chest feels tight, while a younger child may withdraw and sit quietly in a corner. Strategies for engaging families:

- Conduct a home visit to help the family identify and develop a plan to address triggers.
- Help the family [prepare for healthcare visits](#) by creating a list of questions, concerns, and descriptions of recent episodes.
- Educate family members who do not understand asthma and may not know how to recognize a child's symptoms.
- Work with the child's medical home or your Health Services Advisory Committee to identify community resources that can provide asthma education and support.
- Convene a meeting with the family and everyone who works with the child including teachers, caregivers, food service personnel, bus drivers, and monitors, to

make sure everyone understands the child's Asthma Action Plan. Communicate regularly with the child's medical home to ensure your program is updated on changes in treatment. The plan should include:

- Specific accommodations needed in the child's daily activities (diet, classroom activities, outdoor activities, field trips, etc.).
- The child's regular and emergency medications including: the name, dose, route, schedule, indications for administration, and possible side effects.
- The signs and symptoms of an asthma attack and appropriate responses (eg, removal from triggers, medication, observation, emergency plan).

As with any medical condition, you should review the child's individual Asthma Action Plan at least every three to six months and after any change in medication, emergency room visit, or hospitalization.

Asthma Action Plan

For: _____ Doctor: _____ Hospital/Emergency Department Phone Number: _____ Date: _____
 Doctor's Phone Number: _____

GREEN ZONE **Doing Well** Take these long-term control medicines each day (include an anti-inflammatory).
Medicine _____ **How much to take** _____ **When to take it** _____
 No cough, wheeze, chest tightness, or shortness of breath during the day or night
 Can do usual activities
And, if a peak flow meter is used,
Peak flow: more than _____
 (80 percent or more of my best peak flow)
 My best peak flow is: _____
 Before exercise: _____ or 2 or 4 puffs, _____ 5 minutes before exercise

YELLOW ZONE **Asthma Is Getting Worse** Add quick-relief medicine—and keep taking your GREEN ZONE medicine.
 Cough, wheeze, chest tightness, or shortness of breath, or
 Waking at night due to asthma, or
 Can do some, but not all, usual activities
On: _____ or 2 or 4 puffs, every 30 minutes for up to 1 hour (short-acting beta₂-agonist) or Nebulizer, once
If your symptoms (and peak flow, if used) return to GREEN ZONE after 1 hour of above treatment:
 Continue monitoring to be sure you stay in the green zone.
On: _____
If your symptoms (and peak flow, if used) do not return to GREEN ZONE after 1 hour of above treatment:
Peak flow: _____ to _____ (50 to 75 percent of my best peak flow)
On: _____ (short-acting beta₂-agonist) _____ mg per day For _____ (3-10) days
 Add _____ (oral steroid) _____ hours after taking the oral steroid.
 Call the doctor or before/within _____ hours after taking the oral steroid.

RED ZONE **Medical Alert** Take this medicine:
 _____ or 4 or 6 puffs, every 30 minutes for up to 1 hour (short-acting beta₂-agonist) or Nebulizer, once
 _____ mg (oral steroid)
Then call your doctor NOW. Go to the hospital or call an ambulance if:
 You are still in the red zone after 15 minutes AND
 You have not reached your doctor.

DANGER SIGNS Trouble walking and talking due to shortness of breath Take 4 or 6 puffs of your quick-relief medicine AND
 Lips or fingernails are blue Go to the hospital or call for an ambulance NOW!
 (phone)

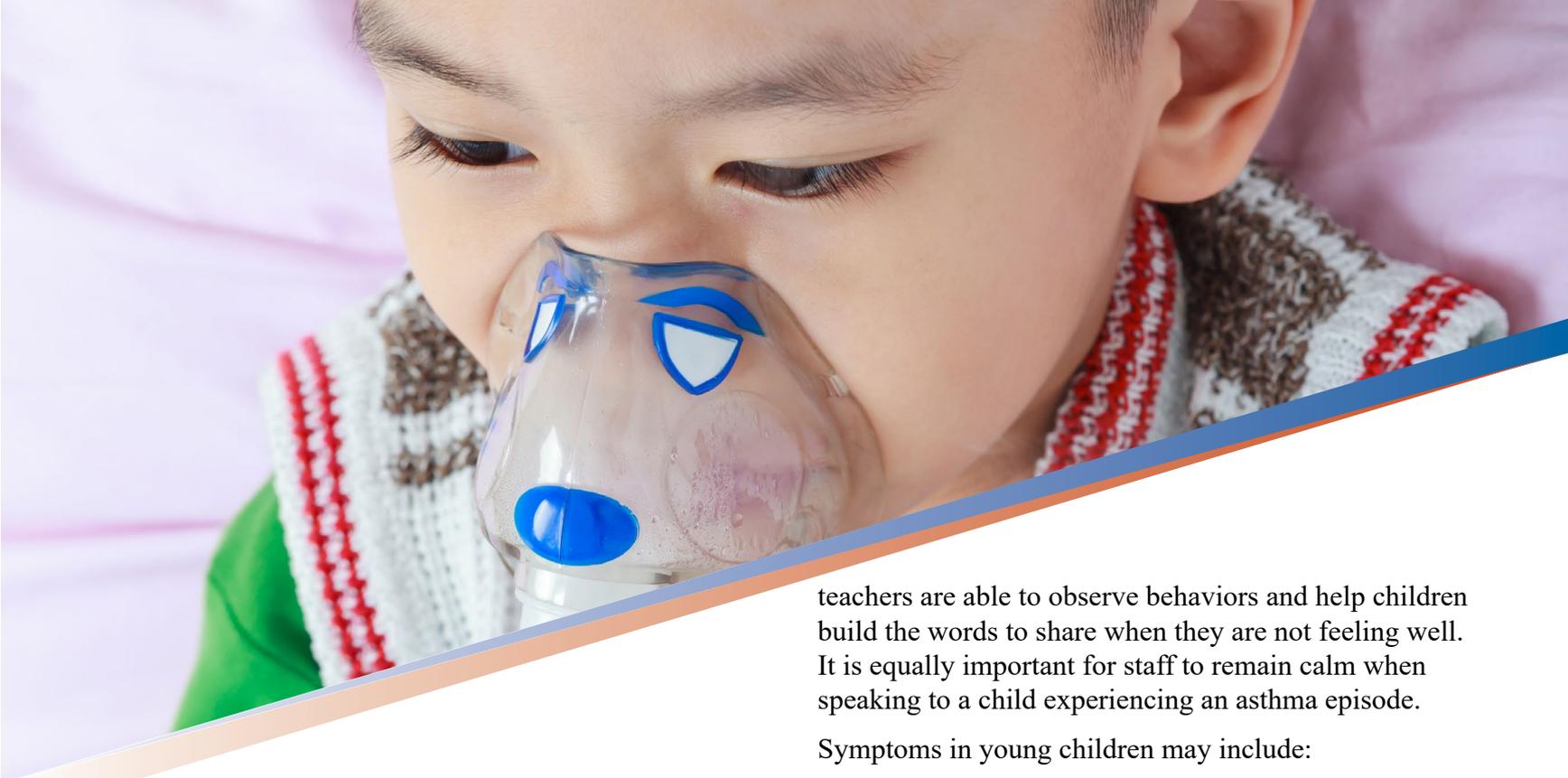
See the reverse side for things you can do to avoid your asthma triggers.



What Your Program Can Do

Head Start programs should have an organized and systematic way to support children with asthma. Your program can:

- **Use your Head Start management systems.** Ensure families, teachers, and bus drivers are equipped to monitor and communicate information including: changes in the child's health care plan, changes in medication, the child's condition, and when medication were last administered.
- **Does your program track when children experience asthma episodes or are absent due to asthma?** Consult your medication administration policy, emergency protocols, daily health check, and attendance tracking.
- **Provide education for all staff.** Do staff know what to do in the event of an asthma attack? Are staff trained in medication administration for rescue inhalers and nebulizers?
- **Have an Asthma Action Plan for each child with asthma.** Do all staff know where it is? Can all of the child's caregivers identify his or her individualized triggers and symptoms?
- **Educate older toddlers and preschool children about asthma.** Talk often with the children about asthma, its symptoms, and what you will do in the event of an asthma attack.
- **Remove or reduce triggers.** Plan indoor activities on high ozone days.
- **Improve ventilation throughout the building.** Replace HEPA filters regularly.
- **Ensure proper maintenance of heating and air conditioning systems.**
- **Routinely clean carpet.**
- **Reduce exposure to second and thirdhand smoke.** For example, ask staff who smoke at home to change their clothes when they arrive at the program; and develop a policy that does not permit staff or families to smoke on the grounds of the facility.
- **Partner with the medical home.** The child's healthcare provider can provide information regarding the severity, frequency, triggers, signs and symptoms, and recommended interventions.
- **Facilitate transition to kindergarten or another program.** Ask the family for permission to make sure the next placement is aware of the child's needs, and ensure the family has developed an Asthma Action Plan prior to transitioning from your program.



Asthma Action Plan

An Asthma Action Plan should support the program in caring for a child with asthma, as well as communicate with the family and provider. It should include:

- Medications taken, when, how, and possible side effects.
- Where the medication should be stored at all times, including: when going outside, on field trips, and during fire drills or other emergency preparedness activities.
- Specific allergies or triggers, their symptoms, and what to do to minimize exposure.
- What symptoms indicate an emergency.
- What steps to take in the event of an emergency.
- Family and health care provider contact information.
- Specific instructions for environmental conditions, ie, participation in outdoor play on high ozone days. You can find examples at: [ECLKC](#), [CDC.gov](#), [American Academy of Pediatrics](#), [American Lung Association](#)

Signs & Symptoms

Older children and adults are often able to describe their symptoms of an asthma episode. However, younger children may not have the language or communication skills to verbally describe their symptoms. It is important

teachers are able to observe behaviors and help children build the words to share when they are not feeling well. It is equally important for staff to remain calm when speaking to a child experiencing an asthma episode.

Symptoms in young children may include:

- **Wheezing.** Sounds like a high pitched raspy whistle. You may hear the wheeze when the child exhales. As the episode progresses, you may hear the wheeze when the child inhales and exhales.
- **Tightness in the chest.** Younger children may show signs of difficulty breathing or speaking. They might press down on their chest or sit quietly in a corner.
- **Shortness of breath.** The child may complain of being winded or not being able to catch his or her breath. You may observe younger children sitting quietly trying to catch their breath. Be watchful for panting or noisy and increased breathing. Signs of shortness of breath might include rapid movement of nostrils; the ribs or stomach moving in and out deeply and rapidly; or expanded chest that does not deflate when the child exhales.
- **Frequent cough.** This may be more common at night. The child may or may not cough up mucus.
- **Lethargy or disinterest in normal or favorite activities.**
- **Difficulty sucking or eating.**
- **Crying sounds softer, different.**



Asthma Resources Toolkit

You can find numerous resources on ECLKC. The resources may be used to raise awareness about asthma and environmental triggers, to help families manage or eliminate environmental triggers in their homes, and to reduce children's exposure to indoor asthma triggers in Head Start and child care facilities. You can find:

- Training presentations for staff and families
- Activities for children
- Posters
- Checklists for programs and families
- Staff tipsheets specifically for Program Directors, Health Services Advisory Committee members, Family Service Workers, and more.



NATIONAL CENTER ON

Early Childhood Health and Wellness

School readiness begins with health!

1-888-227-5125 • health@ecetta.info