

Highlights of Asthma Basics

(Education points for families)

1. Asthma is a disease of the small airways of the lung.
2. The function of the lung is to bring oxygen in the air to the bloodstream, and to bring carbon dioxide (a waste product) from the bloodstream out of the body in exhaled air.
3. In an asthma attack, 3 things happen:
 - a. the wall of the airway gets swollen and inflamed
 - b. the muscles surrounding the airway spasm (squeeze down)
 - c. mucus fills the air passages
4. These 3 things make the airway narrower, so it's harder to get air through, and less oxygen reaches the blood.
5. When people have an asthma attack – they can feel chest tightness, throat tightness, they can wheeze (a musical whistling sound), and can cough a lot.
6. Things that bring on an asthma attack are called triggers. Different people have different triggers that are important for them.
7. Some triggers irritate the airway (like a brillo pad rubbing your arm). These include:
 - a. dust
 - b. smoke
 - c. fumes/chemicals/smells
 - d. cold air or change in weather
 - e. respiratory illnesses (colds and flus)
 - f. air pollution/air quality – especially particles in the air
8. Some triggers cause an allergic reaction in the airways (your body's immune system is reacting to something). These include:
 - a. dust mites
 - b. cockroaches
 - c. cats/dogs/gerbils/rats/mice
 - d. feathers
 - e. grasses, pollens, ragweed
 - f. molds, mildew
9. Some of these triggers will stick to fabric (clothes, bedding, stuffed animals, upholstery) – so people can be exposed even if the cat isn't around, or the cigarette isn't lit.
10. It's possible to control asthma by changing the environment (cleaning the air) and by taking the right medicines.
11. *If you don't control your asthma, it will control you*, and the lives of the people around you.
12. People in good control of their asthma can have normal airways, participate in all normal activities, and excel in sports. (Jackie Joyner-Kersey, Jerome Bettis)

13. The main focus of the CES is to educate families about how they can make changes to their home environment so that their child with asthma isn't exposed to triggers.
14. There are two types of medicines for asthma:
 - a. controllers (anti-inflammatory medicines)
 - b. quick relief/emergency (bronchodilators)
15. It's important to respond to early asthma symptoms – think of early asthma symptoms as smoldering embers. Should you sit back and see what happens or do something to put them out before a real fire starts?
16. Bronchodilators give quick-relief – they put out the flames of the fire. But they don't do anything for the inflammation – so the embers are still smoldering. If the inflammation is still there, it doesn't take much to trigger a full asthma flare-up. In general, kids should only take the bronchodilators when they are having asthma symptoms.
17. Anti-inflammatory medications are needed to get rid of the inflammation and swelling. They “soothe” the airways and make the airways less likely to react to triggers. This is like throwing water on those embers to put them out.
18. All of the kids in this study reported symptoms of persistent asthma on the original screening questionnaire. Not all of these kids have been diagnosed with asthma.
19. If kids have not been diagnosed with asthma, or are not on controller medicines, families should be educated about the signs and symptoms of asthma, and should be referred back to their doctors.
20. Asthma is diagnosed by asking detailed questions about asthma symptoms and what brings them on. Sometimes doctors will give a child asthma medicines to try for a few weeks to help make the diagnosis. If the symptoms get better on the medicine, then there is a good chance that the child has asthma. Hearing a child wheeze during an attack can help make the diagnosis of asthma. Having a normal physical exam on a day when a child is feeling well, doesn't rule out the possibility of asthma. There is no single test to tell for sure if someone has asthma.
21. Community Action Against Asthma is a community-based effort to help families in Detroit get control of their children's asthma by improving air quality. Future visits will talk about ways to help reduce _____'s (child's name) exposure to things that trigger their asthma.