



Explaining Asthma to a Child

Theory of Intellectual Development

Learning self-help skills is the best way to manage your asthma. Even young children can learn to manage some aspect of their care, and the earlier they feel they have some control the better. Piaget described the Theory of Intellectual Development based on four levels of development which we can use to help children learn about asthma.

Sensory Motor Stage (Birth to Age 2 Years)

During this period, learning is attained through sensation. Infants learn through simple, repetitive behavior and by imitation. Cause and effect by trial and error are the tools used to learn and reinforce behavior. If a child learns that if he fights hard enough or cries loud enough that Mom and Dad will stop the nebulizer treatment or not give it, the behavior is reinforced. If, however, the treatment is given when needed regardless of the behavior, most children will learn to cooperate. During the Sensory Motor Stage, object permanence is developed (the concept that even when out of sight, objects still exist). Object permanence is the prerequisite for all other mental activity.

Preoperational Stage (2-7 Years)

During this time, the child is very egocentric. They are unable to “put themselves in another's place” and see situations only as they relate to themselves. Everything is interpreted by how it relates to them. They cannot see things from any perspective other than their own and do not see any reason to do so. Reason beyond what is observable is not possible. Visual models are very helpful at the upper levels of this stage. Seeing the muscles around the airways and what inflammation looks like is very helpful. Recognizing that play is easier after treatment can help them cooperate with their care. Allowing older children to feel some control (do you want to do your medications before this story or after?) also helps.

Concrete Operational Stage (7-11 Years)

In this stage, thought becomes increasingly logical and coherent. These children are able to classify, sort, order, and organize, but they cannot deal in abstraction. They must solve problems in a concrete, systematic fashion based upon what information they can perceive. They can classify their asthma medications in this stage (relievers or controllers), use peak flow meters and spirometric readings to support changes in lung function and develop the ability to use their asthma action plans. They can understand how to work their asthma skills into their morning routine instead of doing everything right before running out of the house. At this age, relating new concepts to ones already established can increase positive outcomes (we use fluoride to prevent cavities, we use controller

medications to prevent asthma exacerbations). Also, tying new activities (taking controller medications) to already established activities (brushing our teeth morning and evening) can make the new activity part of the old one. Tying a MDI to the toothbrush for a few weeks so that every time they pick up the toothbrush, they are reminded of the inhaler is an example.

Formal Operational Stage (12-15 Years)

At this stage, learning is no longer restricted to the real or actual. Children in this stage are concerned with future possibilities and can understand the consequences of their actions. (This doesn't mean that they will do what is asked, only that they understand the consequences of such acts.) They can detect logical consistencies that all members of the health care team give the same information and instructions.

Understanding what developmental level your child is can help you in explaining asthma to your child, reduce your frustration, and give you reasonable expectations about what responsibilities your child is able to assume in the daily management of his /her asthma.

Based on article by Christine W. Wagner, MSN,RN,CPNP

HELPFUL EXAMPLES:

1. Asthma is a special health problem. When you have a runny nose, you have a cold. When you become short of breath, cough, and wheeze, you have asthma. There are a lot of children who have asthma.
2. Everybody has tubes that go from their throat to their lungs. Air moves from your nose, down your throat, and then into your lungs.
3. Everybody's tubes get smaller if they breathe in something bad. This is how nature protects your lungs.
4. People who have asthma have an increase in narrowing of the tubes. They close a little too much. This causes the wheezing, cough, and, shortness of breath.
5. The medicine you take makes your tubes open back up so there is room for you to breathe and feel better.
6. Treat taking daily medications as a part of life, the same as brushing teeth, eating meals, or getting dressed.
7. Use sticker boards or calendars to track positive behavior. Set simple weekly rewards such as, times for reading a favorite book, a trip to the library, or video store, or even better, offer quality one-on-one time with a parent.
8. Let the child have some control, such as when to take medicine (before or after breakfast, before or after their favorite show or before or after bath time).

9. Acknowledge the child's feelings when they express their frustration about taking medicine or that they feel different from their peers. Parents should reinforce that taking medicine will help them breathe better so that they can participate in activities and be like their peers.
10. Help them create an outlet for their frustration, such as throwing a ball, tearing up a paper with asthma written on it, writing their feelings in a journal, or drawing a picture.

Adolescents display abstract thinking and can conceptualize events that have never been experienced. Acceptance from peers becomes more important than acceptance from adults, and they begin declaring their independence by testing rules and boundaries. Adolescents believe in an imaginary audience and personal fable . The imaginary audience reflects the adolescents belief that the whole world is focused on them. The personal fable reflects the adolescents belief that they are so special and unique no one else could possibly understand what they are going through. They are risk-takers and are unable to appreciate the consequences of not adhering to their asthma management plan, especially when it comes to long-term control medications.

1. Encourage adolescents to express their feelings creatively.
2. Arrange a trip to asthma camp or encourage teens to join a support group. Some teenagers benefit from working with younger children with asthma. Contact the American Lung Association of Nebraska for information about programs and camps.
3. Allow them to take medications at home if feeling stigmatized affects their self-esteem. Let adolescents know that as they take on more responsibility for their own care they can initiate discussion with their health care provider to come up with a treatment plan together.
4. Use dry-powder inhalers, open-mouth technique or breath-actuated devices. Adolescents usually don't like using a spacer. Encourage them to ask about all the dry powder inhalers and breath activated inhalers available.
5. Reward positive behaviors when medications are taken regularly with a trip to the video store or evening with friends, etc.
6. Let the teen assume responsibility for their asthma as they demonstrate their maturity. Some parents leave their teenagers in charge of their own care before the teen is ready. Teens are still too young and immature to be in charge of their asthma management. Parents still need to watch their child to ensure proper delivery of medications. Let them be in charge of other aspects of their life.
7. Involve the teenager in the development of their daily and emergency asthma action plan.