Asthma and the Child with Special Needs
by Terra Janice

For the millions of families affected by asthma, the first signs of wheezing, coughing, and shortness of breath in their children signal the need to begin treatment aimed to keep the airways open and everyone out of the ER. An asthma attack can mean different things to different kids and their families, but it almost always means that immediate action needs to be taken, often involving medications, breathing treatments with a nebulizer, and an interruption of whatever daily activities had been taking place. Asthma rarely affects just the child; rather, it typically affects parents and caregivers, siblings, and a whole team of people who know what to do when a patient has an asthma attack or flare-up.

According to statistics compiled by a panel of pediatric pulmonologists, asthma affects millions of children in the US, and accounts for almost half of the ER department visits by children. Of those that seek emergency care, nearly 35% are hospitalized for further support and treatment. Asthma is one of the leading reasons children are hospitalized, and the ramifications of needing this level of support for a disease like asthma extend to many days of missed school for the children, and days of missed work for the parents of children with asthma. With as widespread of a disease as asthma is, it is no surprise that
many people are either personally affected by asthma, or know someone who is.

**What Really IS Asthma?**

Many people tend to think of asthma only in terms of the attacks that are so often heard of, and even those attacks tend to be over-generalized as the deep wheezing, life-threatening dramatic situations portrayed in movies and on TV. To be sure, asthma attacks CAN be heralded by loud whistle-sounding intakes of breath, and can even be a life-threatening emergency. But asthma can also affect children (and the adults who live with them) by causing shortness of breath, a tight feeling in the chest, coughing fits, or a generally lethargic period after lots of activity.

While all asthma is an inflammation of the airways in the lungs that causes them to narrow, asthma affects everyone in different ways, even within families. This is due in part to the health of each individual's lungs and his or her ability to recover from the narrowed airways that are a hallmark of asthma, as well as the fact that there are now several different types of asthma known and recognized by pediatricians, pulmonologists, and allergy/asthma doctors. Those that affect children are primarily Exercise-Induced Asthma (EIA), Allergen-Induced Asthma (AIA), and Non-Allergic Asthma.

**Exercise-Induced Asthma (EIA)** is one of the leading causes of asthma in school-aged children. It is often diagnosed when a child has shortness of breath that is more pronounced than would typically be expected with exercise, fits of coughing upon strenuous exercise, or audible wheezing with increased activity. While it can still be a scary and unexpected diagnosis for parents and children to hear, most EIA can be controlled with small doses of preventative medication, or perhaps with just a rescue inhaler prescribed to be used as needed.

**Allergen-Induced Asthma (AIE)** is another major type of asthma in children, and, like its name implies, is triggered or affected by a child's immunological responses to foreign antibodies (allergens). The symptoms are much the same as in EIA, including coughing
and wheezing, except that the symptoms are triggered by exposure to specific allergens, typically environmental, although food allergies may also play a role. The direct treatment for AIA is rescue inhalers and preventative medications, but allergy medications and treatments aimed at reducing the body's immune response to allergens may also be used to lessen the possibility of allergic responses triggering an asthma flare in the first place.

**Non-Allergic Asthma** is asthma that isn't specifically related to either of the above two causes, and is typically triggered by infections, usually respiratory in nature. Medications, air pollutants or particles, reflux, and fumes can also trigger this type of asthma. Doctors often take awhile to diagnose asthma of this nature, especially in young children, as the triggers or causes of the asthma may produce different symptoms at different times and with different severities. Pulmonary function testing cannot be properly used as a test of a child's lung function until after the age of five, so doctors are often left trying to piece together symptoms and patterns while not overlooking other possible causes of the shortness of breath, wheezy breathing, or coughing. This type of asthma is typically classified into three categories (mild, moderate, or severe) as well as by the frequency (intermittent or persistent).

**Asthma Treatment Plans**

Once a diagnosis has been made, an Asthma Treatment Plan is put into place. This plan is designed to eventually help children affected by asthma be able to achieve the highest possible level of activity with the least amount of symptoms or flares.

Many plans use a "stoplight" method to help families have a visual cue indicating the next steps for treatment in both the long term and in acute exacerbations. Being "in the
"Green" means that medications and exercises designed to strengthen the respiratory system are keeping the asthma under control. "Yellow light" status means that there are some break-through flare-ups in the asthma symptoms, and the child needs to be evaluated by his or her doctor to determine how best to adjust activities and medications. A child in "red light" status is typically having many break-through flares and needing ER/hospital level support to achieve opened airways and resume typical breathing.

Asthma treatment medications often involve the use of low-dose inhaled corticosteroids for long term control, hence falling under the term controller medications, along with a short-acting bronchodilator (inhaler) for help before activities or when a flare-up first starts to happen, known as rescue medications. Different doctors will prescribe different categories of meds within these two broad spectrums, and some may even add in long term use of allergy medicines to eliminate allergens as possible triggers. It can be a difficult adjustment to add in the use of new medications to a child's routine, especially when the long term controller meds seem to be taking too long to control the asthma.

**Coping with Asthma on Top of Other Complex Medical Needs**

A diagnosis of asthma in an otherwise healthy child can be devastating to a family and require that many adjustments be made to activities, bedtimes, and otherwise seemingly innocent illnesses. But when asthma is a part of the life of a child with more complex medical issues, the already difficult adjustments become gargantuan in their scope of difficulty.
Seeking the help and input of a quality, caring pulmonologist or asthma/allergy doctor is key to maintaining the best possible lung function for children with other medical issues. First off, these doctors must be acutely tuned to the nuances of the airway at both baseline and during times of illness, and create an asthma treatment plan with these details in mind. Becoming educated about asthma as its own disease and set of symptoms, although sometimes hard to distinguish from other medical conditions in a child requiring complex care, can go a long way towards helping parents recognize the slight shifts away from baseline that may signal other impending illnesses. Learning to take action at even the first signs of possible respiratory symptoms, while seemingly an overreaction for a "typical" child with asthma, can help offset the often detrimental toll that an asthma attack can have on top of other medical conditions.

A flare-up of asthma symptoms is usually easily identified in a typical child, but an asthma flare-up may be much farther down the list of differential diagnoses that the caretaker of a child with complex medical issues must go through, especially in children with other respiratory issues. In fact, more than a few families affected by asthma plus other medical conditions state that while asthma may be a part of the larger medical picture prompting an ER or urgent clinic visit, it is rarely because of asthma alone that the extra care and support of the ER is sought.

Learning to live with asthma is truly a lifelong process for any child affected by this disease. For children and families dealing with other conditions on top of the asthma, the process is often even longer and more complicated. But it is not a situation without hope. Research and education about asthma is happening every day, and new treatments that better help and control asthma are always on the horizon.

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