Asthma is a respiratory disorder that affects the airways in children and adults. In school age children this can have a sudden onset and become a chronic condition. The symptoms of asthma are a result of the narrowing of the air passages, increased mucous production and inflammation of the air passages. The air passages that are affected are the bronchi; these are the large air passages that branch off of the trachea, or ‘windpipe’. The bronchi can spasm causing a bronchial spasm, another symptom of asthma. Managing your child’s asthma is the best way to insure that they are able to breathe easier and get the oxygen their bodies need. Imagine how tiny the air passages would be in a normal child, and then imagine these airways becoming smaller, filling with mucous and spasming. Those adults who have asthma know how it feels to struggle for a deep breath, and adult airways are much larger. Your child’s physical, mental and emotional development depends on oxygen; struggling to breathe to oxygenate the body can affect their growth, development and their immune system.

How do you know if your child has asthma? If your child has frequent coughing episodes, complains of tightness in their chest and/or complains that it is difficult to take a deep breath, these are some of the symptoms of asthma. Your child’s Pediatrician will make the diagnosis. Coughing frequently is a sign that the body is attempting to open the air passages. Waiting to hear if your child is wheezing is not wise, the air passages can be very narrow and inflamed before you hear wheezing. The Pediatrician or Family Practitioner will prescribe the best medications to manage your child’s asthma: Metered Dose Inhaler, oral medications and Nebulizer medications. They may prescribe the use of a Peak Flow Meter, a spacer and a Nebulizer to monitor the effectiveness of the medications and deliver the medications. They will also develop an Asthma Action Plan for your child.

A Peak Flow Meter is a device that measures the large airways function as well as narrowing or resistance. When your child feels good, has lots of energy and is not coughing, this is the best time to get the initial Peak Flow reading, or Personal Best. There are many types of Peak flow Meters but all have green, yellow and red markers that slide up the numbered scale. Have your child stand, take a deep breath, make a good seal around the mouth piece of the meter and blow hard. A good example is to tell them to blow hard enough to blow out the candles on a birthday cake across the room. Slide the green marker up to this number. Repeat this two times more for a total three readings. Mark the BEST number with the green marker; you want your child’s best number to be when they have the best open airways. Keep a log of this number. There are Peak Flow charts that break down the numbers into zones, based on your child’s height/weight. The zones are Green, Yellow and Red. The Green Zone reflects 80-100% of the Personal best, green is for “GO!” no restrictions are needed. The Yellow Zone reflects 50-80% of the Personal Best and this is a sign that the airways are narrowing and there may be some inflammation. Yellow means caution; it is time to assess if the medications are working, your child needs to rest and if your child needs to be assessed by a Healthcare Professional. The Red zone is serious; this indicates that your child has less than 50% of their personal best. A child can go from the Green Zone to the Yellow zone quickly and go from the Yellow Zone to the Red zone quickly also. Being aware of the Yellow and Red Zones is a proactive and safe way.
to manage your child’s asthma. It’s like racing through a yellow light at a street intersection; it’s dangerous and unpredictable and become an uncontrollable situation. Record the numbers of each Zone and keep them with your child’s asthma medications and equipment.

The medications that the Pediatrician/Family Practitioner will prescribe may be in pills, inhalers and nebulizer medications. An inhaler or a Metered Dose Inhaler must be used correctly to be effective. If a puff of an inhaler is delivered directly in the mouth, most of the medication falls on the tongue and very little makes it into the airways. Shake the inhaler for 10-15 seconds to mix the medication and additives. Inspect the mouth piece of the inhaler for secretions or build up. A spacer is a chamber that the inhaler is inserted into and there is a mouth piece on the other end. The mouth should make a good seal around the mouth piece, the child starts to take a breath and the inhaler is compressed. The medication enters the spacer chamber and the child continues to breathe in slowly. If the spacer makes a noise, like a goose honking, your child is inhaling too hard. After they have received the dose have them hold their breath for 5-10 seconds and then exhale. Some Pediatricians and Pulmonologists recommend that the child wait 20 seconds-1 minute to receive the second dose from the inhaler. Always inspect the spacer mouth piece and the inside of the spacer for secretions, buildup of medications or film; clean the spacer per the manufacturer’s recommendations. For small children there are masks that attach to the mouth piece to make it easier for them to breathe with the spacer. The nebulizer medications are delivered via a nebulizer machine, tubing and aerolizer cup and mouth piece or mask.

Make several copies of your child’s Asthma Action Plan: keep the original at your house, give a copy to the School Office, a copy to any groups that they attend at church, play or sports. This will provide the consistency of care that your child needs. I am more than happy to do the treatments at school should your child require more than two a day. I have a nebulizer, a spacer and a peak flow meter in my clinic kiosk.

Thank you for the opportunity to provide this information to you. We have some incredibly awesome parents whose children have asthma at the school. Their strengths are being a strong advocate for their child, keeping me posted on changes in the Asthma Action Plans, providing the medications that their children need for their asthma management and being proactive in their care. If you have any questions, I will be glad to answer them. There are some good resources available about asthma management:

cdc.gov/asthma/children The Centers for Disease Control
Nemours: Kids Health
Healthy Children.org The Academy of Pediatrics