Your Child's Asthma

Woman: I like to hike and bike and run and – before, I wasn't able to do anything, before I got treated.

Understanding Your Asthma

Kenneth Greene: Asthma – it's a long-term lung disease that can get in the way of something most everyone takes for granted – breathing. And when that happens, everyday activities become difficult. Worse, untreated or poorly controlled asthma can cause changes in the airways of your lungs that may be irreversible, even life-threatening. Hello, I'm Dr. Kenneth Greene, and we're going to take a look at a growing health risk – asthma. Almost one in every ten adults has been diagnosed with asthma at some time in their life, and each year in the United States, asthma attacks lead to two million emergency room visits and 5,000 deaths. The good news is that just by learning some simple things that you can do to control asthma, you can dramatically reduce the number of flare-ups and keep flare-ups that do occur from getting worse. The best treatment for asthma is prevention. To do this, you may need to treat asthma every day, even when you don't have any symptoms. You'll need to avoid exposure to triggers – the things that make your asthma worse. Use your quick relief medicines when you have difficulty breathing, and most likely, take your prescribed medicines every day to help reduce swelling and mucus in the breathing tubes.

What is Asthma?

Greene: When you breathe in, air travels down your windpipe, or trachea, to airways in your lungs called bronchial tubes, and then, through small airways or bronchials, to the air sacs, or alveoli. Asthma causes the lining of the bronchial tubes to swell; at the same time, the body makes lots of thick, sticky fluid called mucus inside the tubes. Muscles surrounding the tubes contract or squeeze; the result, a flare-up, because the air passages are reduced, which makes it harder to breathe.

Asthma Triggers

Greene: Many things can trigger asthma attacks, and different people may have different triggers. The four general types of triggers are: Allergens, irritants, infections and physical activity. Allergens are substances that, for some people, the immune system recognizes as foreign or dangerous and can trigger an asthma attack. Most people have no response to these same allergens. In the house, allergens include dust mites, which can be found in bed pillows, mattresses, carpets and upholstered furniture; others can be pets with fur or feathers, cockroaches and mole in the kitchen, bathroom, or in the soil of houseplants. Outdoor allergens include pollen and mold.

Woman: I had to change my lifestyle – changing everything from what I slept on to what I had in my home.

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Greene: Vacuuming your carpets and upholstery every week can help. If possible, use a vacuum cleaner equipped with either a Hepa filter, or a special bag for allergens. Dust mites love warm, humid places, so keep the humidity in your house as low as possible.

Woman: The purpose of me changing the filter in the furnace is to make sure that the air vents are free of dust or catch the majority of the dust inside of the furnace.

Greene: Since fur and feathers can trigger an asthma attack, it's important to keep animals outside. Or, if your pet has to be kept indoors, keep it from going into your bedroom. Testing can reveal what you're allergic to; talk to your doctor about whether allergy testing would be beneficial for you. Irritants to the lungs also trigger asthma attacks. Smoke is a major irritant – the smoke from cigarettes, fireplaces, incense, secondhand smoke, even the smoke from clothes of people who smoke can trigger asthma flares. Smog, heavy fragrances, aerosol sprays and fumes from many different products are also triggers. So… avoid smoke; stay inside on smoggy days; don't use aerosol sprays; and do wear a mask when you clean. Or, have someone else do the cleaning, if possible.

Woman: What triggers my asthma is the cold weather; smoke – like cigarette smoke within, you know, a couple of hours, I have an asthma attack; chemicals, like cleaning chemicals to clean the house and the hospital. You know, within a few hours, I get an asthma attack.

Greene: One of the most common triggers is an infection in the lungs or breathing passages. The vast majority of infections are viral, producing colds and flu. Other infections include sinus infections, bronchitis and pneumonia. Be conscientious about keeping your hands germ-free. If you sneeze, cover your mouth with your arm and wash your hands afterward, and dry them well. You can use commercially available hand sanitizers containing ethanol or isopropanol, if water is not available. Check the product label to make sure that the alcohol concentration is between 60 and 95 percent, the most effective level in killing germs. And, get a flu shot every fall. Physical activity can trigger a flare-up, too, but it's important to stay active. That's because regular physical activity strengthens your heart and lungs, helps reduce stress, and helps you to maintain a healthy weight. So, before you work out, use your quick relief medicine if exercise is one of your triggers. When you exercise outdoors on cold, dry days, wear a scarf over your mouth and nose. Swimming is good exercise for people with asthma, but be aware that indoor pools tend to have more chlorine in the air, and for some people, that can also trigger an attack. But, allergens, irritants, infections and physical activity aren't the only triggers. Stress and strong emotions, weather changes, changes in temperature, humidity and barometric pressure, some medications and some food additives can cause flare-ups, too. Talk with your doctor to identify your triggers. Your physician can help you figure out strategies to reduce or avoid exposures so that you can continue to enjoy your favorite activities.

Manage Your Asthma

Greene: Knowing and avoiding your asthma triggers is the first step to managing your asthma and preventing flare-ups. It's also important to be aware of your own body, to monitor symptoms of the onset of an asthma attack. Every day, be aware of any symptoms you are having. As with triggers, asthma symptoms can be different for each person, and often, the symptoms are different for every flare-up.

Man: If I really exert myself physically – running for the bus, running for a ferry – I will feel a little tight in the chest.

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Woman: I know when I'm gonna get an asthma attack – I can just feel it. I can feel the tightness in my chest, and I start coughing and wheezing. So, that's when I know I have to use my rescue inhaler.

Greene: Paying attention to your asthma symptoms can help you anticipate a flare-up. Then, you can take some preventative measures to keep the flare-up from getting worse. You can tell a flare-up is coming when asthma symptoms occur more often than usual, or you experience more symptoms than usual. Maybe you need to use your quick relief medicine more often; perhaps your asthma is causing you to wake up during the night. A big part of controlling your asthma is recognizing your asthma symptoms before you have a flare-up. Take a moment – what are your asthma symptoms? Do you cough or get short of breath or wheeze? Does your chest get tight? Recognizing your symptoms before an asthma flare-up can help you feel more confident about managing your asthma at home and knowing when to call the doctor. Monitoring the air flow through your breathing tubes is another way to track your asthma. You can do this using a device called a peak flow meter. A peak flow meter lets you know when a flare-up is starting. It also helps you to determine how bad the flare-up is.

Woman: I will use the peak flow meter just to see where I'm at, because it is hard to tell – am I having a bad one, is it a moderate one, is it getting worse?

Greene: There are several different brands of peak flow meters and different models may give different readings, so it is best if you use the same peak flow meter and take it with you for routine medical checkups, or when you go to the Emergency Department.

Woman: I've done my peak flow and I write down what the peak flow was. And it's helpful, because it tells you whether you're coming down with something and you need to start on medication, or if you're fine.

Woman: I take my peak flow every day. I know what is my best, which is 500. Okay, and if it drops, I know I need to take my medication.

Greene: The peak flow meter helps you know how open your breathing tubes are. When you're feeling well and don't have any asthma symptoms, measure and write down your peak flow readings twice a day for one to two weeks. Your personal best is the highest peak flow reading that you achieve on three separate tries. Your breathing tubes are more open when the peak flow reading is closest to your personal best. It's helpful to use a peak flow meter every day. It will help you to monitor your asthma, will alert you to the onset of a flare-up, and will help you determine how bad the flare-up is.

Using Asthma Self-Management Plan

Greene: Your written asthma self-management plan is another tool to help manage your asthma. Your plan is based on your peak flow numbers and your symptoms. Asthma plans generally use three zones: Green, yellow and red. The plan tells you which medicines to use when your asthma is under control, or in the green zone; when you're having a mild flare-up, or in the yellow zone; and when you're having a severe flare-up, or in the red zone. At first, yellow zone symptoms may seem mild. Still, use your quick relief medicines up to every four hours, as needed, and follow your physician's instructions for using your controller medicines. If you're in the yellow zone for more than two days and you're not improving, follow your red zone plan and contact your physician or asthma care manager. If you're experiencing a cold, the flu, or allergies, check your peak flow meter twice a day and be ready to use your yellow zone plan if

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your peak flow reading drops, even before you become aware of asthma symptoms. Being in the red zone means a severe flare-up has started and this can be very dangerous. Take action immediately. First, use your quick relief medicine; take four to six puffs from an inhaler, or use your nebulizer every 20 minutes for up to three times. Take the flare-up reversing, or Burst medicine that your doctor prescribed. If you have followed these steps and still have symptoms, contact your physician or asthma care manager, or go to the Emergency Department. Continue to avoid triggers. Always let your physician know if you have recently been in the red zone, or if you have been seen in the Emergency Department for asthma. When you're in the red zone, you need to watch for danger signs that indicate you're at greater risk from a severe asthma flare-up. Call 9-1-1, or go immediately to the nearest Emergency Room, if you have any of the following signs: If you have any difficulty walking, talking or breathing because of any exertion due to breathing problems; you're severely short of breath; skin sucked in between your ribs or at the base of your throat; you wheeze when you breathe in and when you breathe out; your lips or nails turn blue. You can live with asthma, but you can also die from it. Make certain you carry your quick relief medicine with you at all times. And work with your doctor to create a personal asthma self-management plan that's designed for you. You can manage your asthma and lead an active and healthy life. How do you know when your asthma is not in good control? We talk about the rule of twos – if asthma wakes you up more than twice a month, or if you need to use your quick relief medications more than twice a week – except for exercise – your asthma is not in good control. Be sure to see your doctor or asthma care manager to adjust your medications and to discuss your triggers and how to avoid them.

Asthma Medicines

Greene: Most people use more than one type of medicine to control their asthma. These include long-term control medicines, quick relief medicines, and medicines to take during a flare-up.

Man: When I use my controlled inhaler, I use it in the morning and I use it in the evenings, and to me, I see it primarily as preventive medicine.

Woman: I had always just used an inhaler as an episodic reliever – oh, gosh, I'm wheezing and so, I need to use my inhaler. That there was a medication that would literally help keep the attack from happening, I hadn't known.

Greene: Long-term control medicines, also known as preventers or controllers, are the most important medicines for managing your asthma and preventing asthma flares. They help prevent and control swelling in the breathing tubes and reduce mucus production. It may take up to a week for the controller medicine to start working, and a month or more to become fully effective. It's important to continue using your controller medicine even when your asthma is in good control and in the green zone. Quick relief medicines relax the muscles around the breathing tubes, which quickly helps to make breathing easier. These medicines don't reduce inflammation, swelling, or mucus production. If you're using your quick relief medicine frequently, except for exercise, your asthma is not in good control. Flare-up or Burst medicines are used when you have a moderate or severe flare-up. These medicines, which are administered as pills or injections, reduce the swelling inside your breathing tubes and help stop the flare-up. Even when you're taking flare-up or Burst medicines, you should continue to take your controller and quick relief medicines. It's important for you to know which medication to take and when; and it's important to take your controller medicine even when you're feeling fine. If you're using any over-the-counter medicines, herbs, supplements or complementary therapies, like acupuncture or massage to treat your asthma, make certain your doctor knows.

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Asthma Inhalers

Greene: Most asthma medicine is inhaled so that it can go directly to the lungs to work. And asthma experts agree that using inhaled corticosteroids is one of the best ways to control asthma. There are three types of inhalers: metered dose inhalers, dry powder inhalers and nebulizers. Metered dose inhalers, or MDIs, deliver the medicine as a spray. Some people call them inhalers, others call them puffers. Most people find that metered dose inhalers work best with a spacer. That's because a spacer increases the amount of medicine that gets into the lungs, which also helps prevent side effects. Shake the MDI well before you use it. Take a deep, slow breath to fill your lungs as completely as possible with the medicine, and if you need to take another puff, wait one minute to administer another dose. Once you're done with your controller medication, rinse your mouth out with water. Don't swallow the water, though – spit it out. Dry powder inhalers, or DPI, deliver the medicine as a powder. To use one, release a dose of medicine into the inhaler chamber according to the instructions for your DPI. Breathe in fast and deep. Afterwards, rinse your mouth with water and then spit the water out – don't swallow it. Nebulizers are machines that deliver quick relief medicine as a fine mist. They're not as convenient as other inhalers, so they're mostly used in emergency rooms, or for people who cannot correctly use an inhaler with a spacer.

Living with Asthma

Greene: You can manage your asthma and lead an active and healthy life. Know your triggers and avoid them. Recognize your asthma symptoms and take action quickly to prevent your asthma from getting worse.

Man: I think I've better learned how to take care of my asthma and what I do in the preventative way is, I take my medicine.

Greene: You can live well with asthma and help prevent asthma from causing irreversible damage to your lungs. Remember to exercise, quit smoking, manage your stress, and maintain a healthy weight.

Woman: I couldn't live my life overwhelmed by sickness; I had to start to make a change every day when I'm well, when I'm sick.

Woman: The advice I would give anyone who has asthma is: Listen to your doctor and take your medications every day. Even if you feel good, take them, because what they're doing is controlling your asthma.

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