

# November 2015

## **Winter is on its Way!**

Cold, wintry weather keeps all of us indoors more, so remember that your home can contain allergy and asthma triggers, according to the U.S. Environmental Protection Agency (EPA). If you have asthma, it's a good idea to ensure that your home is as free of triggers as possible - or at least find ways to reduce your exposure. Your primary care provider or asthma specialist can help you develop a plan, but here is some advice to get you started:

### **Dust Mites:**

Microscopic insects called dust mites are the most common indoor allergy and asthma symptom trigger, according to the American Academy of Allergy, Asthma and Immunology (AAAAI). They feed on human skin flakes and tend to thrive when rooms are above 40 percent humidity and at temperatures above 70 degrees. While they like bedding and soft furnishings the most, they can be found anywhere in the house. To ward off dust mites, allergists recommend purchasing

allergen proof encasings for pillows, mattresses, and box springs, and washing linens in 130-degree temperatures every seven days. When it comes to cleaning, you might have someone else handle the vacuuming, or wear a mask. Remember to use a vacuum that contains a HEPA filter or double-layered bag. Since stuffed animals collect dust mites, too, you'll need a simple way to keep your child's favorites trouble-free. Take the stuffed toy, put it in a freezer bag, and then put it in the freezer for three to five hours per week or wash it in hot water weekly. Freezing the toy kills the dust mites. When purchasing other types of toys, stick with products that are washable or easy to wipe off.

### **Pets:**

The dander shed by furry friends can cause symptoms in susceptible people. While there is no such thing as a hypoallergenic dog, make sure you keep all pets out of your or your children's bedroom. Even if you are not allergic to dogs or cats, they bring in pollen, grass, and dust particles from outside into your home. Keeping your bedroom pet and allergy free is the best to help you sleep and breathe easy at night.

The EPA recommends three strategies for reducing indoor air pollution:

- Controlling sources of pollution,
- Ventilating adequately and
- Cleaning indoor air.

Effective allergen avoidance requires a comprehensive approach including: preventing the pet from having access to the bedroom, using a HEPA (high efficiency particulate air) cleaner in the bedroom, especially for individuals who are pet-allergic, and encasing the mattress, pillow and box spring in allergen impermeable encasings.

**Mold:**

Indoor mold tends to grow in damp, dark environments, such as basements, showers, and bathtubs. Mold growth should be cleaned thoroughly using water, detergent, and 5 percent bleach, if needed. If mold spreads over an area larger than 10 square feet, the help of an indoor environmental professional may be needed.

## **Rhinoviruses Related to Asthma Exacerbations**

Rhinoviruses are a major cause of asthma exacerbations in children and adults. With the use of sensitive RT-PCR methods, respiratory viruses are found in approximately 80% of wheezing episodes in children and in approximately one half of such episodes in adults. Rhinovirus is a member of the family Picornaviridae, and acute rhinovirus infections occur predominantly in the upper airway. This virus has also been identified in the lower airway, and it might cause acute wheezing through the production of proinflammatory mediators with a resulting neutrophilic inflammatory response. Precisely how this process leads to increases in airway hyperresponsiveness and airway obstruction is not fully established. However, risk factors for wheezing with colds include asthma and atopy, extremes in age, and perhaps having a deficient TH1 response to rhinovirus. With the use of in vitro models and experimental inoculation studies, significant advances have led to a better understanding of the mechanisms by which rhinovirus infections cause asthma exacerbations. Advances in our understanding of this interaction might provide knowledge that could ultimately lead to specific treatment modalities to prevent and/or treat this significant burden of asthma exacerbations.

**Reference:**

<http://www.ncbi.nlm.nih.gov/pubmed/16083778>

## **Asthma in the News**

### **LABA + Steroids Not Always a Winning Combo for Black Adults**

Asthma exacerbations were not reduced in black adults when a long acting beta-agonist (LABA) was added to treatment with inhaled corticosteroids (ICS), a randomized trial concluded.

<http://bit.ly/1Md1y2N>

### **FDA Approves Nucala To Treat Severe Asthma**

The FDA has approved mepolizumab (Nucala, GlaxoSmithKline) for use with other asthma medicines for the maintenance treatment of asthma in patients aged 12 years and older with an eosinophilic phenotype who have a history of severe exacerbations despite treatment.

<http://bit.ly/1MjUJJ9>

### **Improving Asthma in Hispanic Families Through a Home-Based Educational Intervention**

Researchers showed significant improvements in frequency of asthma attacks and symptoms, hospitalization rates and acute care visits, quality of life, and asthma knowledge among a largely Hispanic population following a home-based approach to educating families that have children with asthma.

<http://bit.ly/1NHP4RJ>

## **New Model May Aid in Early Prediction of Asthma Deterioration in Children**

Using a self-monitoring tool for asthma called the Asthma Symptom Tracker, researchers were able to predict asthma attacks in children 1 week before the occurrence, with a success rate around 75%. <http://www.biomedcentral.com/1472-6947/15/84>

## **Foradil Aerolizer Discontinued**

Novartis (manufacturer) and Merck have jointly decided to voluntarily discontinue manufacture of FORADIL AEROLIZER for business reasons. Inventory will likely be exhausted and no longer distributed in or around January 2016, though inventory may be exhausted earlier. Health care providers are encouraged to identify an appropriate alternative treatment as soon as possible. <http://1.usa.gov/1RxVpxW>

## **Hyperinflation Prevalent in Patients with Poorly Controlled Asthma, Dyspnea**

A new study showed that hyperinflation is highly prevalent in poorly controlled asthmatics suggesting small airway dysfunction, and may represent an additional criteria for evaluating responsiveness to bronchodilators. <http://bit.ly/1X2i5YY>

## **iPhone App Improves Residents' Familiarity, Use of Asthma Action Plan**

The introduction of an iPhone asthma action plan app to residents improved their familiarity and use of the plan in practice, according to study results. <http://bit.ly/1kAgden>

### **Substantial Increase in Costs for Uncontrolled Asthma**

A considerable proportion of patients with mild to moderate asthma are symptomatically uncontrolled, and uncontrolled asthma is associated with significantly increased costs, according to a recent study.

<http://bit.ly/1QqkgGM>

### **New Study Explores How Anxiety Can Aggravate Asthma**

When people with anxiety sensitivity (fear of fear) also have asthma, their suffering can be far more debilitating and dangerous, because they have difficulty managing their asthma.

<http://bit.ly/1N6IJjV>

### **Improving Pediatric Asthma Care and Outcomes Across Multiple Hospitals**

A recent study tracked over 3,500 children with asthma after hospital discharge, and found a decreased readmission rate which was sustained for 5 years after implementation of pediatric inpatient asthma interventions across a tertiary care and community hospitals.

<http://bit.ly/1MMLfKg>

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## **NAECB Newsletter Editors:**

**Kimberly Byrne, RN, BSN, CPN, AE-C**  
**Karen Meyerson, MSN, APRN, FNP-C, AE-C**

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© Copyright 2013. National Asthma Educator Certification Board  
4001 E. Baseline Suite 206, Gilbert AZ 85234  
Telephone No: 877.408.0072 | Email Adress: [info@naecb.org](mailto:info@naecb.org)