

Editorial

Etiology and Risk Factors of Asthma

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Editor

The Etiology of asthma is still unknown as to the fundamental immunologic, Genetic and environmental mechanisms underlying the development of this condition and its increase expression, especially in the developed world. Asthma does not discriminate, it can be unpredictable, it is most common in women, it increases in city livings, it disrupts your life, cleaner environments raise it, winter season makes it worse and Asthma attacks can be life-threatening.

Allergic Asthma is most common, set off by inhaling allergens such as pet dander, pollen, mold or dust mites. Bronchial hyperactivity or hyper-responsiveness means bronchial tubes are more likely to spasm and constrict due to cold air, dry air, smoke and other irritants, such as pool chlorine.

There is a genetic component that predisposes a person to develop the disease, but typically certain environmental factors must also be in place. But although experts may not know for sure why one person has asthma and another doesn't, they do understand the changes in the body that lead to asthma symptoms – bronchoconstriction (narrowing of the bronchi, or airways) and excess mucus production that together restrict airflow. There also are a variety of known risk factors for asthma.

1-Genetics 2- Prenatal Risk Factors:

Prenatal Tobacco Smoke, Diet and Nutrition, Stress, Antibiotic use and Mode of delivery

3. Risk factors in childhood: Phenotypes of Asthma, Breastfeeding, Lung function, Family Structure, Socio-economic Status, Antibiotics & Infections, Allergic Sensitization, Exposure to Environmental Tobacco Smoke, Exposure to Animals, Gene-by-environment Interactions and sex and gender.

4. Adult Onset Asthma: Occupational Asthma and Others like Smoking Tobacco and Air Pollution.

Asthma Triggers are things that set off, worsen, or activate symptoms. They can vary widely from person to person. Common Triggers are following;

Indoor Triggers: Your home may harbor any of several common allergens known to bring on asthma symptoms.

Dust mites (*Dermatophagoides pteronyssinus*) are microscopic insects that exist in every home and feed on tiny flakes of skin and hair found on bedding (mattresses, pillows, bed covers), carpets, upholstered furniture or anything covered in fabric, and stuffed toys. Mold is most often found on wet or damp surfaces in bathrooms, kitchens, and basements.

Pests: Body parts, urine, and droppings of cockroaches and pests contain proteins that can trigger allergy symptoms.

Allergens from your pets' dead skin, droppings, urine, and saliva can trigger asthma.

Environmental tobacco smoke contains more than 250 different chemicals, including benzene, vinyl chloride, and arsenic, that may irritate airways and bring on asthma symptoms.

Nitrogen dioxide is a gas released by gas stoves, fireplaces, and gas space heaters. It can irritate lungs and lead to shortness of breath.

Outdoor Triggers: During the spring and fall, airborne pollens and molds commonly trigger asthma symptoms, among them:

Pollens are small, powdery granules that are essential for plant fertilization. Pollens from many different kinds of grasses, weeds, and trees may trigger allergy and asthma symptoms. The season and weather conditions greatly influence the amount of pollen in the air. Pollen season varies depending on location but typically lasts from February to October.

Mold growing in soil or on outdoor vegetation can become airborne and trigger asthma symptoms.

Certain weather conditions can make asthma triggers more problematic. Pollen is particularly plentiful when it's hot, dry, and windy outside, for example. Mold thrives in rainy or humid weather. Dry, cold, or windy weather can also set off asthma episodes.

Any type of respiratory infection – such as a common cold or the flu – can trigger asthma symptoms. If you have asthma, it's especially important to take measures to stay well:

Don't touch your nose or mouth while you're out in public or around someone who's sick.

Get a flu shot every year.

Less Common Asthma Triggers: Although these triggers are relatively uncommon, they are potentially serious for people who are sensitive to them.

A number of different medications are associated with asthma flare-ups, including pain medications (aspirin, ibuprofen, naproxen) and beta-blockers.

Some foods like fish, soy, eggs, wheat, and tree nuts are common food allergens. In some patients with life-threatening food allergies, eating these foods can also trigger asthma attacks, which can be deadly.

In the management of Asthma, the exercises and medical treatment are more effective.