

MINUTE FOR HEALTH - ASTHMA

Asthma is a chronic lung disease that inflames and narrows the airways, and causes respiratory symptoms such as coughing, wheezing and shortness of breath. There are 2 types of asthma: Allergic and non-allergic. Allergic asthma it is caused by an autoimmune response in which the immune system reacts to certain allergens, such as cigarette smoke, dust mites, animal dander, indoor mold, grasses, and pollens, as it would to foreign invaders. Through a complex immune reaction, the cells in the small airways of the lungs release chemicals that cause the airways to contract and the lining of the airways to become inflamed. Non-allergic asthma does not involve the immune system and occurs when irritants that are not allergens, such as anxiety, stress, tobacco smoke, cold air, certain fragrances, and exercise, cause abnormal contraction of the airways.

Asthma is a disease of significant concern in the United States. The disease affects 25 million people in the United States (8% of the population), and the incidence of asthma increases each year. Asthma is responsible for more than 500,000 hospitalizations each year. Both children and adults can get asthma, and children are at added risk of developing allergic asthma if there is an existing allergic condition, or if there is a family history of asthma or allergies.

Symptoms of asthma include shortness of breath, difficulty exhaling, tightness in the chest, and wheezing. When the symptoms are persistent for an extended period of time, they may produce excessive fatigue after exertion, disturbed sleep, and difficulty recovering from upper respiratory infections. The diagnosis of asthma begins with a thorough evaluation and examination by your doctor. During consultation, a thorough family history and personal history of symptoms of asthma is taken, and a physical examination is performed. In addition, spirometry testing assesses lung function by measuring the quantity and speed of air inhaled and exhaled during a specified span of time. This testing is helpful to determine if airflow in the lungs is restricted.

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There are 3 types of medications used to treat asthma: Long-term controller medications, quick-reliever medications, and combined therapy. Long-term controller medications consist of an anti-inflammatory group and a bronchodilator group. The anti-inflammatory group intercept the chain of events that cause autoimmune inflammatory symptoms. The bronchodilator group does not reduce inflammation, but they open the airways for long periods of time to facilitate airflow. Quick-reliever medications provide immediate relief of symptoms by relaxing the muscles in the airways and improving airflow. And combined therapy medications contain both a controller medication and a reliever medication.

Autoimmune causes of allergic asthma cannot be prevented. However, the frequency and severity of asthma attacks can be minimized by avoiding certain allergens: Cigarette smoke, dust mites, high humidity, animal dander, mold, pollens and grasses. If you develop persistent or worsening wheezing, shortness of breath, difficulty sleeping because of wheezing and/or coughing, or rapid breathing, despite prompt intervention with quick-reliever medications, call your doctor or go to the emergency room immediately.

Michael J Lucherini MD MS