

# Causes, Symptoms, Management and Medications of Allergic Respiratory Disease

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## DESCRIPTION

Allergic respiratory diseases, often referred to as allergic airway diseases, are a group of chronic conditions that affect the respiratory system, causing a range of symptoms such as coughing, wheezing, shortness of breath, and nasal congestion. These conditions are triggered by allergens-substances that the immune system recognizes as harmful invaders. While the immune system's response is a protective mechanism, in the case of allergic respiratory diseases, it leads to uncomfortable and potentially serious symptoms. This article explores the causes, symptoms, and management of allergic respiratory diseases, shedding light on the impact they have on individuals and their quality of life.

## Types of allergic respiratory diseases

There are several common types of allergic respiratory diseases, each with its unique characteristics and triggers:

**Allergic rhinitis:** Also known as, hay fever, allergic rhinitis primarily affects the nasal passages. Symptoms include sneezing, runny or stuffy nose, and itching of the nose, eyes, or throat. Pollen from trees, grasses, and weeds is a common trigger.

**Allergic asthma:** Allergic asthma is a chronic lung disease characterized by inflamed airways and episodes of wheezing, coughing, and shortness of breath. Allergens such as dust mites, pet dander, pollen, and mold can trigger asthma attacks.

**Allergic conjunctivitis:** This condition affects the eyes, causing redness, itching, and excessive tearing. It often occurs alongside allergic rhinitis and can be triggered by the same allergens.

**Allergic Broncho Pulmonary Aspergillosis (ABPA):** ABPA is a hypersensitivity reaction to the fungus *Aspergillus*, leading to airway inflammation and respiratory symptoms. It is commonly seen in individuals with asthma or cystic fibrosis.

**Occupational asthma:** Some workplaces expose individuals to allergens or irritants that can trigger asthma symptoms. This is

known as occupational asthma and can develop even in individuals without a history of respiratory issues.

## Causes and triggers

Allergic respiratory diseases are primarily triggered by allergens. These substances can be found both indoors and outdoors and may include:

**Pollen:** Pollen from trees, grasses, and weeds is a major trigger for allergic rhinitis and asthma, especially during certain seasons.

**Dust mites:** These tiny insects thrive in household dust, bedding, and upholstery. Their waste products can trigger allergic reactions.

**Pet dander:** Proteins found in skin cells, saliva, and urine of pets like cats and dogs can trigger allergic symptoms in sensitive individuals.

**Mold:** Mold spores are present in damp and humid environments, such as bathrooms, basements, and outdoor areas.

## Symptoms

The symptoms of allergic respiratory diseases can vary in intensity and duration, but common signs include:

- Sneezing
- Runny or stuffy nose
- Itchy or watery eyes
- Coughing
- Wheezing
- Shortness of breath
- Chest tightness
- Fatigue

Symptoms can interfere with daily activities, disrupt sleep, and reduce overall quality of life. It is important to note that allergic respiratory diseases can coexist, and individuals with one condition may be at an increased risk of developing others.

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**Received:** 01-Sep-2023, Manuscript No. LDAMR-23-26012; **Editor assigned:** 04-Sep-2023, PreQC No. LDAMR-23-26012 (PQ); **Reviewed:** 18-Sep-2023, QC No. LDAMR-23-26012; **Revised:** 25-Sep-2023, Manuscript No. LDAMR-23-26012 (R); **Published:** 03-Oct-2023, DOI: 10.12715/2564-8942.23.6.039.

**Citation:** Singh PK (2023) Causes, Symptoms, Management and Medications of Allergic Respiratory Disease. J Adv Med Res.6:039.

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## Diagnosis

Diagnosing allergic respiratory diseases involves a combination of medical history, physical examination, and diagnostic tests. An allergist or immunologist may recommend:

**Allergy skin tests:** Small amounts of allergens are applied to the skin through scratches or injections. The skin's reaction helps identify specific triggers.

**Blood tests:** Blood samples can measure the levels of specific antibodies (IgE) produced in response to allergens.

**Lung function tests:** Spirometry and peak flow tests assess lung function and help diagnose or monitor conditions like asthma.

## Management and treatment

While there is no cure for allergic respiratory diseases, effective management strategies can help control symptoms and improve quality of life. Treatment options may include:

**Allergen avoidance:** Identifying and minimizing exposure to allergens is crucial. This may involve using allergen-proof bedding, maintaining a clean living environment, and limiting outdoor activities during high pollen seasons.

## Medications

**Antihistamines:** These drugs reduce allergic reactions and can alleviate symptoms like sneezing and itching.

**Nasal corticosteroids:** Sprays help reduce inflammation in the nasal passages.

**Bronchodilators:** Inhaled medications that relax and open airways, relieving asthma symptoms.

**Leukotriene modifiers:** These medications help control inflammation in the airways.

**Immunotherapy (allergy shots):** This long-term treatment involves gradually exposing the immune system to small amounts of allergens, reducing sensitivity over time.

## CONCLUSION

Allergic respiratory diseases are common chronic conditions that significantly affect individual's lives. Understanding the triggers, symptoms, and available management options is essential for those affected and their caregivers. By following a comprehensive treatment plan, individuals with allergic respiratory diseases can achieve better symptom control, improved lung function, and an enhanced quality of life. If you suspect you or a loved one may have allergic respiratory disease, seeking medical advice from a qualified healthcare professional is the first step towards effective management and relief.