The concept of "Airborne allergies" started around 1819 when Dr John Bostock first described it as "Summer Catarrh".

As the initial association found was with hay, it soon started to be known as "Hayfever". Although it has "hay" in the name, in reality, we are talking about not just **pollen** allergy but any airborne allergy creating nasal and associated symptoms.

The medical term for symptoms associated with airborne allergies is "Allergic Rhinitis". Reason being the area where the allergens act:

- "Rhino" from the Greek meaning nose
- "Itis" from the Greek meaning inflammation

Since then, there was an increase in research to find what other airborne allergens could lead to similar symptoms as the ones caused by hay.

In 1946 and 1967, respectively, **house dust mite** and **cockroach** allergens were identified. Due to the increased incidence of allergic reactions and asthma, suspected to be associated with **pets**, **rodents** and **moulds**, several other allergens were also found over the last few decades. The main studies proving the association between those allergens and allergic rhinoconjunctivitis, asthma and eczema were the several NHANES (National Health and Nutrition Examination Survey) done in the USA.

Interestingly, the existence of such allergens has been suspected since 1600, in the case of house dust mites.

More recently, as the general public started using rodents as pets, the number of people showing signs of asthma or allergic rhinitis has been on the rise.

Children up to 11 or 12 years old are thought to have an increased risk of developing symptoms when there is an association with urban living, higher number of siblings and male sex.

It is thought that a genetic background of atopic disease is the main factor, but the gene involved has been hard to identify, and its mechanism is not fully understood.

The importance of understanding airborne allergies, primarily pollen allergy, is that allergic rhinitis, due to airborne allergens, is the most common cause of allergies worldwide.

With it comes the significant association with other pathologies like asthma and eczema, in what has been described as the "Atopic Triad".

In combination, they are thought to affect around 20% of the world population, with some estimates being raised to 25%.

## The most common symptoms are:

Sneezing

Itching of nose, eyes, ears or palate

Runny or blocked nose

Loss of smell

Runny, red or swollen eyes

Headache

Earache

**Tiredness** 

Prevention of symptoms starts with environment control and allergen avoidance by decreasing exposure.

If the symptoms are still persisting, medication, like nasal sprays and eye drops, can be started by any GP, and referral to an allergy specialist should be the next step.

The diagnosis is often made by performing skin prick tests. Occasionally primary care can also request blood tests to identify the allergens involved.

The use of immunotherapy is also widely available, is safe and proven to decrease symptoms and improve quality of life significantly.

In fact, some recent studies have suggested that immunotherapy might prevent the development of "Pollen Food Syndrome".

As such, due to the significant impact on quality of life, if there is a suspicion that an airborne allergen might cause some symptoms, act quickly.

Investigation and subsequent treatment can place those symptoms under control, and potentially we can prevent the development of asthma.

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https://www.thechildrensallergy.co.uk/ https://allerpack.co.uk/