

Newsletter

Pollen allergy: causes and symptoms

Compiled by: Cerballiance

Allergy in a few words

- Respiratory allergies affect many people, especially allergic rhinitis which alone affects about 25% of adults. The symptoms vary and are most often non-specific to the allergy.
- When seasonal, pollens are often involved. There are also cross-reactions with certain plant-based foods, such as fruits, legumes or nuts.
- To complement the medical consultation, biological tests can first confirm the allergic origin of the symptoms, then in a second time will identify the allergens. Understanding the cause of the allergens will facilitate the making of preventive measures and possibly some level of desensitization in order to permanently suppress the symptoms.
- Pollen and pollination periods vary from region to region or county to county. The symptoms encountered in respiratory allergy are varied and there may be cross-reactions with certain foods. Biological tests allow quality diagnosis and management.

What is an allergen ?

Allergy is an inappropriate, harmful response of our body, which is called a hypersensitivity reaction. This reaction is triggered by exposure to a substance in our environment that should normally be tolerated, the allergen.

Allergy is related to the synthesis by our body of specific **antibodies, immunoglobulins E or IgE**. It is these antibodies that will interact with an allergen to trigger the allergic reaction.

The mechanism of allergy takes place in two stages. On the 1st contact, the body becomes aware of the allergen and produces IgE. It is from the 2nd contact that the symptoms appear, defining the allergy.

Note: the phenomena of intolerance are not to be confused with allergy. The mechanisms involved are different and the diagnostic tests are also distinct.

When are pollens found in the air?

Pollens are emitted by plants (trees, shrubs, herbaceous plants) at the time of their reproduction. Not all of them are allergenic. Only pollens that are disseminated via the wind may come into contact with the respiratory mucosa and thus cause allergy symptoms (unlike pollens that are disseminated by insects).

On the other hand, pollens are only present in the air for part of the year, which is specific to each variety. Their presence in the air varies depending on the region and climate. In dry weather, the amount of pollen in the air is greater. Indeed, the rain causes pollen to fall to the ground and reduces its amount in the air we breathe.

What are the symptoms?

The symptoms observed in respiratory allergy are varied. The diagnosis of allergy is sometimes difficult because these same symptoms can be encountered in other pathologies. In the case of pollen allergy, they are present only during the period of pollen in the air.

The most common symptoms are:

- **Hay fever or allergic rhinitis: itching, discharge, stuffy nose, sneezing;**
- **Asthma: wheezing, coughing, difficulty breathing, chest tightness;**
- **Conjunctivitis: itching, redness, lacrimation;**
- **Cough.**

Cross-reactions: What is it?

There is a structural community between proteins contained in pollen and those of certain foods of plant origin such as fruits, legumes, and nuts. It is, therefore, possible to become aware of this type of food secondary to a pollen allergy.

In this case, the reactions caused by the ingestion of these foods are generally small. This is most often an oral syndrome (pruritus, swelling of the lips).

Diagnosis of pollen allergy

The diagnosis of allergy is based on the combination of the results of allergy tests (skin OR blood), clinical examination and the history of the patient's allergy.

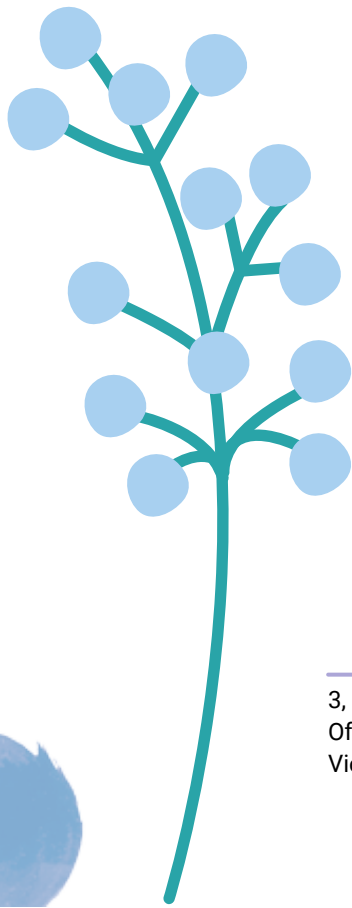
- A consultation with your doctor will identify symptoms suggestive of a respiratory allergy and suspect one or more allergens (pollens) that could be involved in the appearance of your symptoms
- There are blood tests for respiratory allergies, that can make it possible to affirm or exclude the allergic origin of symptoms, in addition to the medical consultation. In case of positive screening, blood identification tests (specific IgE assays) make it possible to specify the allergen(s) involved and to personalize the management of the allergy.
- Blood tests have the advantage that they can be performed at any age, are not influenced by treatments (including antihistamines) or symptoms and do not require fasting.
- In some cases, your doctor will advise you to see an allergist. The latter will be able to perform skin tests to identify the allergens involved: each allergen is introduced into the skin using a thin needle and triggers the formation of a pimple in case of allergy.
- The allergist may also prescribe identification blood tests (specific IgE tests) if the skin tests are impracticable or difficult to interpret or to supplement the results of the skin tests.

Treatment of pollen allergy

- Measures to limit or avoid exposure to the offending allergens may be put in place.
- These measures can be supplemented by treatments used to alleviate or suppress symptoms (antihistamine treatments, nasal vasoconstrictors, bronchodilators, etc.). But these treatments do not cure the allergy.
- There are also treatments that act on the cause of the allergy and can permanently suppress the symptoms. This is desensitization or specific immunotherapy. These are long-term treatments that can be implemented by the allergist when the allergens involved have been clearly identified.
- To optimize this care and thus improve the quality of life, it is very important to know all the allergens responsible for the symptoms. Indeed, you should know that 80% of allergic people are sensitized to several allergens at the same time (3 on average). It is the cumulative exposure to all of these allergens that triggers the symptoms.
For example, a person may be sensitized to an allergen present all year round (such as dust mites) and also have an allergy to birch pollen: symptoms occur during cumulative exposure to these two allergens (at the end of winter), but eviction measures to limit the presence of mites in the house can reduce or even eliminate the symptoms.

Resources:

Source: Pollen allergy: causes and symptoms | Cerballiance



There are 3 major pollen periods:

- End of winter: tree pollens.
- Spring: grass pollen.
- Late summer and early autumn: herbaceous and ragweed pollens.