

## AN OVERREACTION OF YOUR DEFENSE SYSTEM, AN ESCALATING PANDEMIC, A BIG BURDEN FOR THE EU

With 1 in every 2 Europeans suffering from an allergy in 2015<sup>1</sup>, according to the estimate, allergic disease has been called a public health concern of pandemic proportion. People of all age groups are affected: from infants to adults, from children and teenagers to the elderly.



©Mathom/123RF.com, this image is the only one that is not under the CreativeCommon License  
For the high definition image: <https://www.atopica.eu/img/1.png>

### FAST STATS

Allergies are among the most common chronic diseases in Europe

113 million people suffer from allergic rhinitis

68 million people suffer from allergic asthma

Asthma and allergies are the first cause of emergency room visits and hospital admissions for children

Respiratory allergies affect around 20-30% of the Europeans

<sup>1</sup><http://www.efanet.org/eu-policymakers-and-the-european-allergy-community-joins-efa/>  
<http://www.efanet.org/wp-content/documents/EFABookonRespiratoryAllergiesFINAL.pdf>

The World Health Organization (WHO) defines allergy as an ‘immunologically mediated hypersensitivity’<sup>2</sup>. The defence (immune) system of the body normally fights against harmful agents. In allergy, it does its job wrong, recognizing as noxious and reacting aggressively to certain substances that are supposed to be harmless for the organism.

Thus, when they come in contact with these offending substances (that are called allergens), people who suffer from allergy produce immunoglobulin E (IgE), antibodies against them and activate their immune cells. These cells release substances, histamine is one of these, causing allergy symptoms, such as sneezing, stuffy or runny nose, itchy eyes, nose and throat. In some cases, allergy may manifest as asthma, rhinitis and conjunctivitis (hay fever), eczema, or other symptoms.

Among allergens, pollen is one of the most common causes of respiratory allergies. Airborne pollen is a natural component of the atmosphere and when inhaled, it may trigger seasonal allergies in allergic people. The allergic reaction is caused by proteins contained in the pollen grain. These are released into the airways and are attacked by the immune system. Ragweed pollen grains carry some of the strongest pollen allergens. Less than 20 ragweed pollen grains/m<sup>3</sup><sup>3</sup> are able to cause allergy symptoms. So far, ten different allergenic proteins, called Amb a 1 to 10<sup>4</sup>, have been identified in them.

Pollen release is seasonal and the season differs from plant to plant: from early spring throughout the summer until late fall, pollen is in the air.

## ALLERGY GLOSSARY

---

<b>ALLERGEN</b>	Substances which cause allergy by reacting with the immune system
<b>ATOPIC PEOPLE</b>	People who are genetically predisposed to produce IgE antibodies and can develop allergy symptoms
<b>ALLERGIC SENSITISATION</b>	The initial process by which an individual becomes sensitive to a substance/allergen
<b>ALLERGIC RHINITIS/ RHINOCONJUNCTIVITIS</b>	Allergic rhinitis/rhinoconjunctivitis is inflammation of the inside of the nose (and or eyes) caused by an allergen, such as pollen (hayfever),

---

<sup>2</sup> <http://www.worldallergy.org/UserFiles/file/WhiteBook2-2013-v8.pdf>

<sup>3</sup> doi:10.1016/j.envint.2013.08.005

<sup>4</sup> doi:10.1371/journal.pone.0061518



**(HAYFEVER)** dust, mould or flakes of skin from certain animals with symptoms such as sneezing, stuffy or runny nose, itchy eyes, nose and throat

**ATOPIC DERMATITIS (ECZEMA)** Also known as atopic eczema or eczema is a type of dermatitis, an inflammatory, relapsing, non-contagious and itchy skin disorder

**ASTHMA** A chronic inflammatory disorder of the airways with symptoms including wheezing, breathlessness, chest tightness, and cough

## FOR THE INFORMATION ABOVE AND MUCH MORE ON ALLERGY

<http://www.efanet.org/wp-content/documents/EFABookonRespiratoryAllergiesFINAL.pdf>

<http://www.worldallergy.org/UserFiles/file/WhiteBook2-2013-v8.pdf>

[http://www.eaaci.org/attachments/1637\\_1307947625\\_European%20Declaration%20on%20Allergen%20Immunotherapy2011.pdf](http://www.eaaci.org/attachments/1637_1307947625_European%20Declaration%20on%20Allergen%20Immunotherapy2011.pdf)

<http://www.ctajournal.com/content/2/1/21>

<http://www.efanet.org/wp-content/uploads/2012/12/EFA-Position-Paper-to-Save-Pollen-Info-and-Forecast-for-Europe.pdf>

<http://www.efanet.org>

<http://www.eaaci.org>

<http://www.nlm.nih.gov/medlineplus/allergy.html>

[doi:10.2399/jmu.2013002009](https://doi.org/10.2399/jmu.2013002009)

[doi:10.1016/j.envint.2013.08.005](https://doi.org/10.1016/j.envint.2013.08.005)

[doi:10.1371/journal.pone.0061518](https://doi.org/10.1371/journal.pone.0061518)

<http://www.efanet.org/eu-policymakers-and-the-european-allergy-community-joins-efa/>