



ALLERGIA- JA ASTMALIITTO
ALLERGI- OCH ASTMAFÖRBUNDET

Pollen allergy



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Pollen allergy

Approximately 20 % of Finnish have pollen allergy, or allergic rhinitis (hay fever). Triggers of hay fever are broad-leaved trees in early summer, grasses in high summer and mugwort in late summer. Approximately 15 % of Finns react to birch tree pollen, 10 % to grasses and 5 % to mugwort. The main symptom of the pollens mentioned above is a runny nose (allergic rhinitis) but they may also cause respiratory symptoms such as coughing and wheezing.

Global warming has extended the pollen season and it now starts two weeks earlier than before. The amount of broad-leaved trees has also increased, and together these two have increased the total pollen count.

The onset of the pollen season depends on temperature conditions. Southern air currents carry enough pollen to cause symptoms to southern

Finland already in January and February mainly from Estonia and the other Baltic countries. The pollen season advances from south to north in a couple of weeks.

Air pollen count is at its lowest in the mornings, evenings and in wet weather conditions. High air pollen counts are seen on sunny and windy days especially before noon. The allergen count of birch tree and grass pollen multiplies in air right before rain and especially during a thunder storm. The peak flowering period lasts two to three weeks, and during this time there may be pollen in the air also during nights. ■



Causes of pollen allergy

Allergy-causing pollen particles are light and the proteins contained in them are quickly released when the pollen comes in contact with a person's mucous membranes. All of the plants most commonly associated with allergies are wind-pollinated. Research has shown that many plants release allergenic particles before flowering, and, like actual pollen particles, these may cause allergic reactions.

Alders and common hazel

are the first plants to cause allergic reactions in spring. The symptoms are caused by the pollen of common alder and grey alder. Alders begin to flower in mid-March. Persons with alder pollen sensitivity almost always also react to birch and common hazel pollen. In Finland, common hazel shrubs grow in the wild only on the southwest and south coasts and elsewhere in gardens as ornamental plants.

Birch trees

are the most common cause of pollen allergy in Finland. The species that cause symptoms are silver birch, downy birch and dwarf birch. Birch typically start to flower in early May and the peak pollen count is reached in mid-May. Statistics show that a strong birch pollen season occurs every third year. Cutting down birch trees in your own yard is unnecessary as the pollen is carried everywhere anyway.

“Statistics show that a strong birch pollen season occurs every third year.”

Other broad-leaved trees

(aspen, poplar, willows, maple, ash, trees of the genus Tilia, oak and elms) only cause symptoms in a small number of people. The pollen counts of coniferous trees growing in Finland (spruce, pine, juniper) are high but allergies to their pollens are extremely rare.

Of grasses,

at least 40 species produce allergising pollen. A person who is only sensitive to one plant may react to the pollen of all these species which flower from late May to late August. Most grasses start to flower in late June, and July is typically the worst time of the year for people with pollen allergies. Rye is a wind-pollinated cereal crop that flowers in late June, causing symptoms in people with grass allergies due to cross-reactivity. Other cereal crops are self-pollinated, meaning that they propagate by using non-opening, self-pollinating flowers that do not cause symptoms.

“Birch trees are the most common cause of pollen allergy in Finland.”

Mugwort

is a weed growing along roadsides and in wastelands. Air does not carry its pollen very far so symptoms usually only occur in the vicinity of mugworts. Mugwort starts to flower around mid-July in southern Finland. Mugwort is plant in the genus *Artemisia*, which includes daisy and dandelion. Their pollens contain the same allergens as mugwort. It is advisable to weed mugwort from your garden as well as from areas surrounding schools and nurseries in early July well before the onset of the flowering period.

Field wormwood and ragweed (*Ambrosia artemisiifolia*), relatives of mugwort, cause symptoms in most people with mugwort allergy. Field wormwood flowers in dry sandy areas in southern and central Finland a few weeks later than mugwort, thus increas-

ing the period during with people with mugwort allergy experience symptoms. **Ragweed** is a newcomer in Finland. It mostly grows near bird feeders as it has been introduced to Finland with seed mixes sold for bird feed containing foreign seeds. Ragweed needs a warm summer in order to flower, and even then it only flowers in September. Ragweed allergy is common in southern Europe and USA.

Outside Finland, pollen allergies are triggered by other species as well. Allergising plants in the Mediterranean region include olive trees, cypress, plane trees and plants of the genus *Ambrosia*. The pollen season is considerably longer in the Mediterranean countries than in Finland. For more information about the pollen situation in Europe, please visit www.polleninfo.org. ■

Outdoor mould spores

Mould spores are present in outdoor air throughout the snowless period. They are released into air as soon as snow melts away and the soil dries a little. The spore count is at its highest in late summer from late July until the first snowfall. Mould spores may cause symptoms that are similar to the symptoms caused by pollen allergens. The most important genera of fungi are *Cladosporium* and *Alternaria*. It is estimated that moulds of these genera cause symptoms in about one to two per cent of Finns. The exact number of people with mould allergies is not known due to the lack of reliable test substances and methods. ■



Symptoms of pollen allergy

Pollen allergies cause symptoms mainly in the respiratory system. The range of symptoms include watery nasal discharge, sneezing, itchiness in nose, nasal congestion, throat irritation and asthma symptoms. Most people with pollen allergies also suffer from red, itchy and burning eyes. Pollen allergy may also worsen the symptoms of atopic eczema, and many sufferers also experience tiredness. Pollen allergy rarely develops in children under the age of two, and most sufferers become sensitised to pollen at school age.

Approximately half of the people with birch pollen allergy also react to root vegetables and fruit, and a small subset also reacts to spices. This phenomenon is known as **cross-reactivity**. Its symptoms are usually mild but may vary in severity. Slight swelling may occur in the lips and mouth while itchiness may occur in the mouth, throat and ears. Gastrointestinal and skin symptoms are rare. Symptoms may not occur at all after the pollen season. Handling raw root vegetables, such as peeling potatoes, may cause a skin reaction. Cooking and grating root vegetables and fruits make them less allergising. ■



“Approximately half of the people with birch pollen allergy also react to root vegetables and fruit, and a small subset also reacts to spices. This phenomenon is known as cross-reactivity.”

People with birch pollen allergy **may** react to:

- apples
- cherries
- peaches
- plums
- pears
- nectarines
- kiwifruit
- pineapple
- mango
- passion fruit
- grapes
- raw carrot
- celery
- raw potato
- fennel
- hazel nuts
- peanuts
- walnuts
- almonds, marzipan
- chestnuts
- sesame seeds, sunflower seeds, pine nuts
- spices
- tomato
- peppers

Cross-reactions between grasses and foods are uncommon.

People with grass pollen allergy **may** react to:

- wheat, rye, barley, oats, rice, corn, sorghum (durra), ryegrass, canary grass
- peas, melon, peanuts, soy, white lupin, tomato

Cross-reactions between mugwort and foods are relatively uncommon.

People with mugwort pollen allergy **may** react to:

- parsley
- parsnip
- celery
- garlic
- chamomile
- raw carrot
- fennel
- honey
- bee pollen products
- spices: aniseed, coriander, caraway

Spices that most often cause symptoms:

- peppercorns, cinnamon, curry powder, ginger, caraway, turmeric, coriander, mustard

Diagnosing pollen allergy

Symptoms of pollen allergy usually occur during a certain time of the year. Tests are not necessarily needed to confirm a diagnosis. Skin prick and blood tests can be used if the cause of symptoms is unclear. ■

Pollen allergy relief

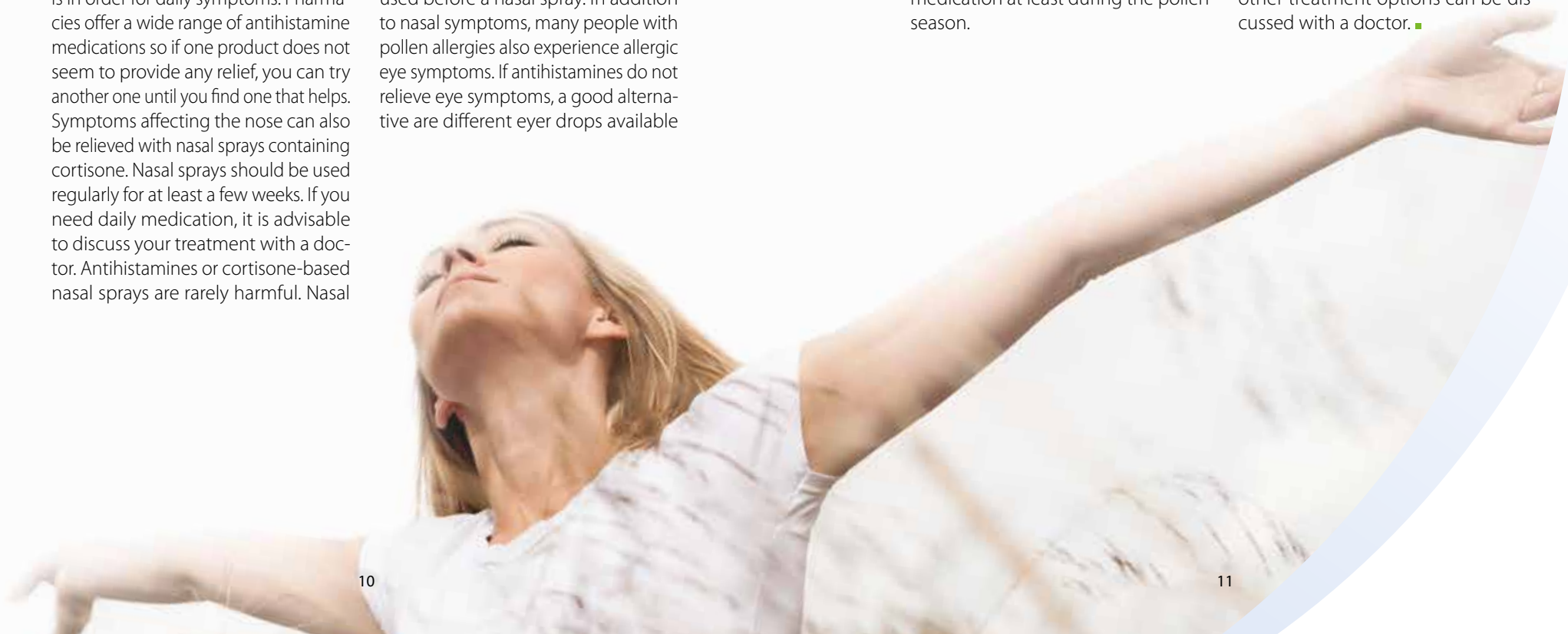
The management of pollen allergies is based on the symptoms. Mild and occasional symptoms often go away on their own, but medication is in order for daily symptoms. Pharmacies offer a wide range of antihistamine medications so if one product does not seem to provide any relief, you can try another one until you find one that helps. Symptoms affecting the nose can also be relieved with nasal sprays containing cortisone. Nasal sprays should be used regularly for at least a few weeks. If you need daily medication, it is advisable to discuss your treatment with a doctor. Antihistamines or cortisone-based nasal sprays are rarely harmful. Nasal

irrigation using a neti pot is a good way of providing extra relief. The neti pot is used to help flush impurities and mucus out of the nasal passages, and it is best used before a nasal spray. In addition to nasal symptoms, many people with pollen allergies also experience allergic eye symptoms. If antihistamines do not relieve eye symptoms, a good alternative are different eye drops available

at pharmacies. Coughing and difficulty breathing are symptoms that should be discussed with a doctor. People with these symptoms may need asthma medication at least during the pollen season.

Pregnant and breastfeeding women should primarily use nasal sprays and eye drops to relieve allergy symptoms. If they do not provide enough relief, other treatment options can be discussed with a doctor. ■

“Medication is in order for daily symptoms.”



Immunotherapy

Immunotherapy, which is also called desensitisation, is a form of treatment that targets the cause of the allergy. The purpose of immunotherapy is to desensitise the body to the substances that cause allergies. This booklet only contains information about immunotherapy as a treatment for pollen allergies although it is also available as a treatment for allergies to some stinging insects and pets. There is also ongoing research into providing immunotherapy for people with particular food allergies.

The administration types of immunotherapy treatment currently available in Finland are injections, tablets and drops. The treatment is carried out over a period of three years. Birch, grass and mugwort pollen allergies are treated with injections, while tablets are used for treating grass pollen allergies and drops for birch pollen allergies.

Immunotherapy is available through a referral from your doctor, and it also offered by private healthcare providers. Subcutaneous immunotherapy, or the injections, is administered by a healthcare professional. At first, the injections are given under the skin of the upper arm every two weeks for 7

to 15 weeks, and after that every four to eight weeks. The tablets are mainly taken at home every day, apart from the first tablet which needs to be taken under the supervision of a healthcare professional. Sublingual immunotherapy (SLIT) using drops is a new type of treatment in Finland. It requires the doctor supervising the treatment to apply for a special permission for compassionate use and to draw up a medical statement B. The drops used to treat birch pollen allergy are taken during a certain time of the year (from January to May). The treatment is usually started under the supervision of a healthcare professional and then continued at home following

“Immunotherapy targets the cause of the allergy.”

the doctor's instructions. The drops are administered under the tongue (sublingually).

There are individual differences in how well the treatment works but it usually relieves symptoms already during the first year, and some of the patients experience no symptoms after the course of treatment. For some, the symptoms come back over the years but another course of treatment is rarely needed. ■



Tips for preventing symptoms:

- use a neti pot to rinse nasal passages
- ventilation: mechanical ventilation with supply air particle filters
- fit particle filters in ventilation windows and supply air vents
- mow the lawn when it is wet
- weed mugwort from your garden preferably right before it flowers in early July. Make sure to pull out the root.
- install an efficient air purifier
- clean your home every week
- rinse your hair to remove pollen before going to bed
- avoid airing or drying bedding outside during pollen season
- spend time outdoors in the morning or late in the evening. Avoid strenuous exercise, such as vigorous cycling and running during high pollen times
- follow pollen forecasts at www.norkko.fi



Pollen glossary

Finnish:	Koivu	Leppä	Pähkinä	Heinä	Puju
Swedish:	Björk	Al	Hassel	Gräs	Gråbo
Norwegian:	Björk	Or	Hassel	Gress	Burot
Danish:	Birk	Elletræ	Nød	Græs	Bynke
Estonian:	Kask	Lepp	Pähkel	Hein	Puju
English:	Birch	Alder	Hazel	Grass	Mugwort
German:	Birch	Erle	Hasel	Gräser	Beifuss
French:	Bouleau	Aulne	Noiseter	Graminéeés	Armoise
Spanish:	Abedul	Aliso	Avellano	Gramineas	Artemisa pegajosa
Italian:	Betulla	Ontano	Nocciolo	Graminaceae	Assenzio





We are sensitive

Nearly a half of Finns suffer from allergy symptoms at some point in their lives. Asthma affects one in ten Finns. Allergy and Asthma Federation is a public health organisation with an aim to improve the quality of life of those with allergies and asthma.

Allergy and Asthma Federation provides materials for coping with allergies. To order the materials, contact the Federation or visit www.allergia.fi. The Allergia & Astma magazine published by the Federation is another good source of information (available in Finnish).

Allergy helpline, tel. +358 (0)600 14419

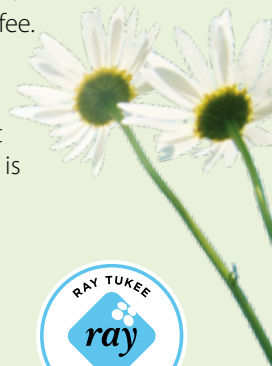
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To become a member, simply fill in the postcard below. Add your contact details in BLOCK CAPITALS, detach the card and post it to us. The postage is paid for you. The annual membership fee is EUR 27.00.

As a member, you get to enjoy all the benefits and services of the Allergy and Asthma Federation and its member associations.

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- Personal guidance
- Peer support activities
- Rehabilitation
- Training
- Events and campaigns
- Exercise and recreational activities etc.



Support us and become a member!

Yes, I want to join an Allergy and Asthma Federation member association.

Name _____

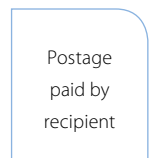
Address _____

Postcode and town _____

Email address: _____

Signature of parent/ _____

legal guardian of person under 18 years of age



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The information submitted will be saved in the membership register of the Allergy and Asthma Federation. The members have the right to check and amend their information by calling +358 (0)9 473 351.