

# Hayfever

Hay fever is a type of allergic rhinitis caused by pollen or spores. Allergic rhinitis is a condition where an allergen (something that causes an allergic reaction) makes the inside of your nose inflamed (swollen). Hay fever affects the nose, sinuses (small air-filled cavities behind your cheekbones and forehead), throat and eyes. Hay fever usually occurs during the spring and summer months. Exactly when you get it depends on which pollens you are allergic to. From May to July grass and flowers are in pollen, so this is the most common time for hay fever.

Trees, grass and plants release pollen as part of their reproductive process. Mould and fungi also release tiny reproductive particles, called spores which also cause allergies. People with hay fever can experience their symptoms at different times of the year, depending on which pollens or spores they are allergic to. Grass is the commonest allergen implicated and the symptoms associated hayfever.

Hay fever is a common condition that affects around 20% of the population. Hay fever is more likely if there is a family history of allergies, particularly asthma or eczema. It is estimated that up to 50% of asthmatics and up to 30% of eczema sufferers also have allergic rhinitis. Hay fever usually begins in the early teens and peaks when a person is in their twenties.

## Symptoms

Symptoms of hayfever include sneezing, running nose, watery eyes, nasal congestion, itching in the throat, eyes and ears and swelling around the eyes. Patients with asthma often find that asthma symptoms, such as wheezing and breathlessness, get worse when they have hay fever as well. Sometimes, asthma symptoms only occur during the hay fever season.

## Allergic reaction

The symptoms of hay fever occur when the immune system overreacts to a normally harmless substance, in this case pollen. When the body comes into contact with pollen, cells in the lining of the nose, mouth and eyes release a chemical called histamine. This triggers the symptoms of an allergic reaction.

## Prognosis

Hay fever cannot be cured completely. Data suggest that children sometimes improve with age, although many have persistent and worsening symptoms. In adults, the condition is usually persistent with some improvement in older age.

Hayfever can cause serious symptoms if left untreated. Total nasal obstruction may cause sleep apnoea, frequent sinus infections, interference with daytime breathing and ear infections.

**Seasonal Vs Perennial Hayfever-** If allergen exposure is seasonal, the most likely culprits are tree, flower and grass pollen and the symptoms are predictable and reproducible. Seasonal allergic rhinitis may therefore be diagnosed by the history alone.

By comparison, classic perennial allergic rhinitis is associated with nasal symptoms, which occur for more than two hours per day and for more than nine months of the year.<sup>3</sup> Perennial allergic rhinitis usually reflects allergy to indoor allergens like dust mites and animal fur. In perennial allergic rhinitis, nasal congestion is common while itchy and streaming eyes is less frequent.<sup>6</sup>

**Pollen Count-** Hay fever symptoms are likely to be worse if the pollen count is high. This is not determined simply by how many flowers there are, but also by the weather. The amount of sunshine, rain or wind affects how much pollen plants release. Hay fever symptoms tend to begin when the pollen count is over 50. The pollen count is highest in the early evening, so hay fever sufferers are advised to avoid going outdoors at this time. On humid and windy days, pollen spreads easily. On rainy days, pollen may be cleared from the air causing levels to fall.

## Diagnosis

To determine if a patient has allergic rhinitis, the doctor will ask a number of questions to determine cause and type of allergy including the time of day and year the rhinitis occurs (to distinguish seasonal and perennial rhinitis), family history of allergies, medical history, information about medication used including decongestants which can cause a rebound effect and information on pets.

The doctor will examine the inside of the nose with an instrument called a speculum. The eyes, ears, and chest may also be examined.

Skin tests may be performed. Patients are usually tested for a panel of common allergens. Skin tests are rarely needed to diagnose mild seasonal allergic rhinitis, since the cause is usually obvious. The skin test is not appropriate for children younger than age 3. Patients should not take anti-histamines for 12 to 72 hours prior to the skin test otherwise the allergy will not show up. Small amounts of suspected allergens are applied to the skin with a needle prick or scratch. The patient is tested with selected diagnostic vaccines of tree, grass, or weed pollen, mould, house dust mite, and/or animal allergens. A hive will develop at skin test site within 20 minutes if there is an allergy. Skin allergy tests are popular because they are convenient and inexpensive. They are not 100% accurate.

The doctor may take a nasal smear. The nasal secretion is examined microscopically for factors that might indicate a cause, such as increased numbers of white blood cells, indicating infection, or high eosinophil count. High eosinophil counts indicate an allergic condition.

Blood tests for IgE immunoglobulin production may also be performed. One test is called the radioallergosorbent Test (RAST), used to detect increased levels of allergen-specific IgE in response to particular allergens. Further tests may involve a CT scan or a nasal endoscope.

## Treatment

People suffering from hayfever need to try to reduce exposure to triggers such as pollen and dust. I will deal with tips on how to reduce exposure to triggers later in this article. As total avoidance of triggers is impossible, medication is often needed to control symptoms. Treatment in advance of first symptoms is an important aspect of management of hayfever. For example, starting treatment in April; prior to the normal summer increase in pollen count. There are a number of treatments available to relieve the symptoms. These include antihistamine tablets, nasal sprays and eye drops. Some can only be prescribed by a GP, but many are available over-the-counter (OTC) in pharmacies.

### Antihistamines

Antihistamines are the most frequently used oral medicines for the treatment of hay fever. Many are available without prescription and are a reasonable first line choice for many patients. They are effective in relieving eye symptoms, running nose, sneezing and nasal irritation but have little effect on nasal congestion. Antihistamines are useful in patients with troublesome symptoms at multiple sites e.g. itching of roof of the mouth, throat or eyes. However, antihistamines may have side effects and drug interactions.

There are two main groups of antihistamines: First generation and Second generation.

#### First Generation Antihistamines. ("Sedative")

Sedation is the most common side effect of these drugs and may affect the patient's ability to drive and operate machinery and concentrate. They should not be used in patients with prostatic hypertrophy or narrow angle glaucoma. Tolerance to their side effects may develop. Chlorpheniramine (Piriton<sup>®</sup>) is available over the counter in pharmacies. Piriton<sup>®</sup> can cause mild drowsiness.

#### Second Generation Antihistamines. ("Non Sedative")

Examples include desloratadine (Neoclaritin<sup>®</sup>), fexofenadine (Telfast<sup>®</sup>), levocetirizine (Xyzal<sup>®</sup>), loratadine (Claritin<sup>®</sup>) and cetirizine (Zirtek<sup>®</sup>, Cetrine<sup>®</sup>). They only require once daily dosage and are non-drowsy. Loratadine and cetirizine are available over the counter without prescription. The non-sedating antihistamines are fast acting, have no reported cardiac side effects, and are not affected by the presence of food in the stomach. However, loratadine is best avoided in elderly patients and patients with liver problems.

In Whelehans, we stock generic version of antihistamines which prove very popular. Our generic versions such as Cetrine<sup>®</sup> are less expensive than their branded equivalents but are equally effective. Cetrine<sup>®</sup> now comes in a 28 day pack over the counter.

### Decongestants

Decongestants have a limited role in hay fever and should be reserved for periods of severe nasal congestion. Nasal decongestants sprays and drops such as Otrivine<sup>®</sup> should not be used for longer than three to five days because of the possibility of rebound congestion which makes the problem worse.

### Corticosteroids

Nasal drops and sprays reduce inflammation and swelling of the nasal mucosa and in normal dosage side effects are minimal. It is best to start treatment a few weeks before the season begins. All corticosteroids nasal sprays appear to have similar efficacy. Fluticasone (Flixonase<sup>®</sup>), beclomethasone (Beconase<sup>®</sup>) and Mometasone (Nasonex<sup>®</sup>) are the most regularly used. People find the once daily dosage regimen of Flixonase<sup>®</sup> and Nasonex<sup>®</sup> convenient. Side effects are mild and transient and consist of nasal irritation and stinging, dryness, sneezing, sore throat, nose bleeds and fungal overgrowth. They should be avoided during nasal infections. Flixonase<sup>®</sup> and Beconase<sup>®</sup> are available to buy over the counter in pharmacies. Whelehans now sell Nasobec<sup>®</sup> Allergy spray, which is a new cost effective generic equivalent beclomethasone nasal spray. Check with your doctor or pharmacist before using for first time. Oral steroids (eg prednisolone or depot injections (eg) triamcinolone (Kenalog<sup>®</sup>) are only prescribed for certain groups of patients such as those doing exams or those with severe continuous symptoms despite adequate standard therapies.

### Others

Ipratropium bromide nasal spray (Rinatec<sup>®</sup>) may be prescribed by your doctor where running nose is the predominant symptom. It does not relieve itching, sneezing or nasal blockage.

Azelastine (Rhinolast<sup>®</sup>) is a prescription only nasal antihistamine spray with a rapid onset of action. It may provide an effective and safe alternative to oral medications. Otrivine Antistin<sup>®</sup> eye drops are fast acting antihistamine eye drops available over the counter.

## Hayfever and Pregnancy

Topical corticosteroids (sprays and drops) should be used in preference to antihistamine tablets if drug treatment is needed. Topical corticosteroids can be used but high doses of oral corticosteroids should be avoided. Sodium cromoglycate is safe to use. The sedating antihistamines, chlorpheniramine (Piriton<sup>®</sup>) and promethazine (Phenergan<sup>®</sup>) may be prescribed by your doctor in severe cases and only if topical treatment is ineffective. Never take hayfever medication while pregnant without checking with your GP or pharmacist.

## Immunotherapy

Immunotherapy is the use of allergen vaccines containing house dust mite, animal fur or extracts of grass or tree pollen. By gradually increasing the patient's exposure to the

allergen that causes the allergy, the patient becomes tolerant to it. Immunotherapy is only used in patients with severe symptoms and must be done by a specialist. However, long term relief can be achieved. Grazex<sup>®</sup> is a grass pollen extract available in tablet form which is now available on prescription for patients who have failed to respond to other hayfever treatments. Grazex<sup>®</sup> must be started at least 4 months before pollen season and should be continued for up to 3 years.

## Prevention

The pollen count is often given with TV, radio, internet, or newspaper weather forecasts. If it is humid or windy, the pollen count is likely to be higher. Generally, the pollen count is highest in the early evening, so try to avoid going outside around this time. Keep windows and doors shut in the house if it gets too warm, try drawing the curtains to keep out the sun and keep the temperature down. Avoid cutting grass, playing, walking or camping in grassy areas. Change your clothes and take a shower after being outdoors to remove the pollen on your body. Wear wrap-around sunglasses to stop pollen getting in your eyes when you are outdoors. Keep car windows closed, and consider buying a pollen filter for the air vents in your car. Keep fresh flowers out of the house, and vacuum (ideally using a machine with a HEPA filter) and damp dust regularly. Do not smoke and stop other people from smoking in your house smoking. Smoke irritates the lining of your nose, eyes, throat and airways which can make your symptoms worse. Keep pets out of the house during the hay fever season if your pet normally comes indoors; wash pets regularly to remove any pollen.

**Disclaimer: Please ensure you consult with your healthcare professional before making any changes recommended**

For comprehensive and free health advice and information call in to Whelehans, log on to [www.whelehans.ie](http://www.whelehans.ie) or dial 04493 34591. You can also e-mail queries to [info@whelehans.ie](mailto:info@whelehans.ie).