AllergyUK

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Your quick guide to:
Hay Fever and Allergic Rhinitis

What is allergic rhinitis?

Allergic rhinitis is the medical term given for inflammation of the nasal lining caused by an allergic trigger. Many people refer to it as hay fever if it is due to pollen. It is very common and affects 10-15% of children and 26% of adults in the UK. (GK Scadding et al, 2017). It can significantly affect quality of life, work and school performance and attendance, and is a risk factor for the development of asthma.

The nose is the entrance to the start of the respiratory tract and some things that are inhaled have the potential to cause allergic symptoms. If symptoms are uncontrolled, they can affect the sinuses, throat, voice box and lower airways as well as the eyes and middle ear.

What symptoms of hay fever or allergic rhinitis should I look out for?

- Sneezing
- Itchy nose/itchy palate/itchy throat
- Blocked nose/stuffy nose/ nasal congestion
- Runny nose (usually with clear fluid)/ nasal discharge
- Red/itchy/watery eyes (that can become very sore or infected with frequent rubbing)
- Postnasal drip (the sensation of mucus running down the back of the throat)
- Cough
- Wheezing/asthma symptoms/tight chest/breathlessness are these last 4 points common?
- Sinus inflammation/pain
- Feeling of itch in ear/ear blockage

What causes allergic rhinitis?

Allergic rhinitis is caused when the body makes allergic antibodies (IgE) to harmless airborne allergens such as pollen, house dust mite or pet dander (hair/skin) that are breathed in. In people sensitised to these allergens, exposure causes the release of chemicals (mediators), from cells in the nasal passages, eyes or airways. Some of these mediators, such as histamine, work quickly, causing sneezing, itching and runny nose. Others work more slowly causing an inflammatory reaction with symptoms such as blocked nose, reduced sense of smell and difficulty sleeping.

Why is it important to treat allergic rhinitis?

Allergic rhinitis is often regarded as a trivial problem, but studies have shown that it affects quality of life. It disturbs sleep, impairs daytime concentration and ability to carry out tasks, causes people to miss work or school and has been shown to affect examination results.

People who have allergic rhinitis are at increased risk of developing asthma as the upper airway affects the lower part of the airway leading to the lungs. Many asthmatics also have rhinitis which may have an allergic trigger. Asthma can be better controlled with fewer A&E/hospital admissions if allergic rhinitis is effectively treated.

Is all rhinitis caused by allergic triggers?

Not always, there are many causes for rhinitis. Non-allergic rhinitis can be caused by an infection, usually viral or bacterial. This can be accompanied by a temperature or fever, feeling generally unwell. Nasal discharge may start off with being clear and runny but often quickly turns to yellow or green. There are also many other causes of nonallergic rhinitis, including reactions to medicines such as aspirin or the contraceptive pill or thyroid underactivity. Please see your doctor to discuss this further.

Seasonal allergic rhinitis (hay fever)

Seasonal allergic rhinitis is caused by airborne allergens from grasses, trees, weeds, plants and outdoor moulds which are wind pollinated. Bright flowers whose pollination is by insects are unlikely to cause allergy. In spring birch tree pollen is highly allergenic and planting birch trees near homes or in school grounds can sensitise susceptible people. Grass pollen is the most common trigger of hay fever, and it is for this reason that allergic rhinitis is often referred to as hay fever. This can affect children at school with their examinations, since most exams are taken

Key facts:

Seasonal allergic rhinitis **(Hay fever)** is caused by airborne allergens from grasses, trees, weeds, plants and outdoor moulds.

People with **all year-round symptoms** can easily mistake it for a persistent or frequent cold. The symptoms are often triggered by allergens in the home such as those from house dust mites, pets and indoor moulds.

DO NOT use **nasal decongestants** to regularly treat hay fever. After a few days they can make symptoms worse and do not get to the root cause, which is inflammation.

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in the summer months, when grass pollen levels are at their highest. While some people with hay fever react to one type of pollen during the 'season', and then feel better later in the year, it is also possible to be affected by more than one type of pollen or airborne allergen, leading to many months of rhinitis.

Perennial (all year round) allergic rhinitis

People with all year-round symptoms can easily mistake it for a persistent or frequent cold. The symptoms are often triggered by allergens in the home such as those from house dust mites, pets and indoor moulds. Allergy UK has a Factsheet with more detailed information for house dust mite and pet allergy.

Occupational rhinitis

This can be allergic or a non-allergic arising from airborne substances in the work environment (Scadding et al 2017) and examples of this could be latex, flour (factory workers, pastry chefs) plants (arborist), animals (including laboratory animals, veterinary, farmers and abattoir) glutaraldehyde, chlorine, ammonia. According to a recent published report there are over 300 agents which can cause occupational rhinitis. This type of rhinitis often improves when away from the workplace (i.e. when on holiday). It is important to identify occupational rhinitis as it can progress to irreversible asthma if exposure continues.

Pollen-food allergy or oral allergy syndrome

Some people with an allergy to pollens (especially tree pollens) may find that when eating certain fruits, vegetables, or tree nuts, especially raw, they get an itchy mouth or throat. See our factsheet Oral Allergy Syndrome for more details.

How is hay fever diagnosed?

The diagnosis can usually be made by your healthcare professional (GP/allergy specialist/ENT) taking an allergy focused history along with a gentle examination of the inside of the nose, supported, if necessary, by allergy tests. There are also some other special examinations of the nose which may need to be performed, for example, a nasal endoscopy.

How is allergic rhinitis treated?

1. The guidance for this comes under 3 headings
2. Avoidance of the allergen
3. Pharmacotherapy (the medicines you get from the pharmacy or your GP)
4. Desensitisation therapy (also called immunotherapy)

Minimising exposure is a crucial part of the management.

Avoidance of the allergic trigger (pollens, moulds, house dust mite etc). Avoiding airborne allergens such as pollen can be difficult.

Many people may see their symptoms improve when avoiding or reducing exposure to house dust mite and pets. we have factsheets that give good avoidance measures on these allergens.

The following measures can also be helpful for pollen allergic people.

1. Monitor pollen forecasts daily and stay indoors where possible when pollen counts are often at their highest between dusk and dawn. (generally, on warmer, dry days). Rain washes pollen from the air so counts should be lower on cooler, wet days. Although do beware of thunderstorms when pollen counts are high.
2. Limit time spent in rural areas. Sea breezes blow pollen inland, so escape to the coast instead.
3. On high pollen days, shower and wash your hair after arriving home and change your clothing (as pollen is virtually indestructible unless wet, so will stay on hair, body and clothing).
4. Keep windows closed when indoors. This is most important in the early mornings, when pollen is being released, and in the evening when the air cools and pollens that have been carried up into the air begin to fall to ground level again.
5. Pollen counts tend to be high along roads with grass verges (dual-carriageways, motorways). If you have allergic symptoms whenever inside a motor vehicle, a good pollen filter should help. In the home you can choose an air filter that is proven to trap even small particles (see the Allergy UK website for lists of air filters that may help).
6. Avoid mowing lawns or raking leaves yourself. If you must perform these tasks, use a filtration face mask (see Allergy UK's products website) and wear wraparound sunglasses. Ideally if you are grass pollen allergic, delegate this task to someone who is not.
7. Wear wraparound sunglasses when outdoors to keep pollen allergens out of your eyes. A hat with a peak or large brim can help keep pollens from your eyes and face.
8. Avoid drying clothes etc outside when pollen counts are high.
9. Keep car windows closed and the air intake on 'recirculate' when driving. Choose a car that is fitted with an effective pollen filter or get an in-car air filter.
10. Pet's specifically dogs and cats can carry pollen on their fur/hair which can be transferred after petting/stroking them. Wipe pets' coats with a damp microfibre cloth to remove pollens when they have been out.

Treatments for hay fever

Nasal allergen barrier balms may be useful, when applied around the nostrils, can help to prevent allergens entering the nose and triggering symptoms. Nasal rinses with an isotonic saline solution (also known as saline douching or irrigation) are available to wash away allergens from the nose. These can be used as frequently as required and in conjunction with prescribed or over the counter medications. You can ask your pharmacy about these.

Medication for allergic rhinitis can be very effective, especially when used correctly. Some medications work by blocking the allergic response (such as antihistamines) and others by reducing inflammation

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(such as nasal steroids). There are a large range of antihistamines in tablet, liquid, or nasal spray form. Recommended ones are mostly taken once daily and do not cause drowsiness in most people (ask your pharmacist for advice). These are called long-acting non-sedating antihistamines.

Antihistamines may be all that is needed if symptoms are mild and are most effective for sneezing or an itchy, runny nose, but not for a blocked nose or moderate to severe symptoms. In this case the regular use of a non-absorbed corticosteroid nasal spray to treat the inflammation is required, especially if a blocked nose is the problem, these are called intranasal corticosteroids. These are available from pharmacists or on prescription from your GP. These are very safe medications, and the ones allergist mostly recommend are mometasone and fluticasone.

For moderate to severe symptoms, a spray that contains corticosteroid plus antihistamine can now be prescribed by your GP.

It is essential to understand how to use nasal sprays correctly.

Nasal symptoms caused by allergy (hay fever/allergic rhinitis) where the nose feels blocked or congested is mainly due to inflammation/swelling in the nasal passages. The only way to effectively reduce this inflammation is to use an anti-inflammatory spray. This contains a small amount of steroid that is sprayed into the nose and over time will effectively reduce the inflammation causing the congestion. Very little steroid gets circulated in the body as its job is only to target the nose. All current guidelines for nasal blockage from allergy recommend this. In addition, starting 2-3 weeks prior to the hay fever season is often recommended.

What the guidelines **DO NOT** recommend is the use of nasal decongestants to regularly treat hay fever. The only time these may be used is for an occasion such as a wedding or exam for a day or two at most. This is because after a few days they can make symptoms worse and do not get to the root cause, which is inflammation. There is a danger that if used regularly they can cause high blood pressure, interact with other medications and lead to a worsening of symptoms once stopped.

Antihistamines and corticosteroid nasal sprays often control eye symptoms as well, but eye drops are available over the counter or on prescription if needed. Cromoglycate drops are often effective, but your GP can prescribe more effective drops for severe allergic eye symptoms (e.g. Olopatadine). All rhinitis treatments should be taken regularly as it is more difficult to control symptoms that are already well established. Only taking medications occasionally on the worst days is much less effective and you should aim to start using the preventative/treatment nasal sprays two weeks before your symptoms usually begin.

Are there any other treatments for severe symptoms of hay fever?

To give short term relief in exceptional circumstances corticosteroid tablets, can be prescribed for a few days can help to relieve severe symptoms. They should be used together with a corticosteroid antihistamine nasal spray and a doctor must prescribe these. **They are not recommended for frequent or long-term use.**

What isn't recommended?

Guidelines also do not recommend Kenalog for hay fever. This is an injection which contains a high dose steroid. Once it is given can't be removed and can have lasting side effects.

There are much safer and better ways now of treating severe allergic rhinitis such as desensitisation/immunotherapy.

Immunotherapy

Specific allergen immunotherapy (or desensitisation) is a treatment for those with very severe allergic rhinitis that is not adequately controlled despite correct use of all prescribed medication, especially when it has impact on daily living and quality of life. It involves taking the relevant allergen, either under the tongue daily or by injection at intervals, continuing for at least three years. Not only is it a very successful treatment for severe allergic rhinitis but it alters the course of disease and reduction of symptoms continues for years after cessation of treatment. It may reduce the progression of allergic rhinitis to asthma. It has been used for many decades but must be initially prescribed and controlled by a hospital allergy specialist.

As immunotherapy is a specialist treatment, it is currently used only for those with moderate to severe symptoms uncontrolled by normal medications. It is very important to comply with the strict treatment regime otherwise it will not give the benefit expected. See our Immunotherapy factsheet.

Allergy testing for allergic rhinitis (hay fever)

Allergy testing is not always required in simple hay fever because the trigger substances can be easily identified from the history of when and where symptoms occur. However, it can be helpful when the trigger is not obvious, or if the exact identification is needed for immunotherapy. Skin prick test or blood tests (specific IgE to the allergen to be tested) are the correct tests.

We have a separate factsheet on allergy testing that gives much more detail.

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