

Your quick guide to: Allergic Rhinitis and Hay Fever

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. 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. Allergic rhinitis has trebled in the last 20 years (Allergy the unmet need, 2003) 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 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)
- Post nasal drip (the sensation of mucus running down the back of the throat)
- Cough
- Wheezing/asthma symptoms/tight chest/breathlessness
- Sinus inflammation/pain
- Feeling of itch in ear/ear blockage
- Nose bleeds - This may be due to the lining of the nose being itchy and is often rubbed or scratched.

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?

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 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.

Seasonal allergic rhinitis

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

Key facts:

Aim to start using the preventative/treatment nasal sprays **two weeks** before your symptoms usually begin.

People who have allergic rhinitis are at increased **risk of developing asthma**.

Treatments should be taken regularly

as it is more difficult to control symptoms that are already well established.

In spring **birch tree** pollen is **highly allergenic**

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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 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 work place (ie 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 allergic rhinitis 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.

Rhinitis can be managed by:

Avoidance of the allergic trigger

(pollens, moulds, house dust mite etc)

Avoiding airborne allergens such as pollen can be difficult. However, many people do see their symptoms improve when avoiding or reducing exposure to house dust mite and pets. 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 a normal 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.

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

- Monitor pollen forecasts daily and stay indoors wherever possible when the count is high (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.
- Limit time spent in rural areas. Sea breezes blow pollen inland, so escape to the coast instead.
- 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).
- 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.

- 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).
- 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 wrap around sunglasses. Ideally if you are grass pollen allergic, delegate this task to someone who is not.
- 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.
- Avoid drying clothes etc outside when pollen counts are high.
- 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.
- 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

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 (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).

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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 available from pharmacists or on prescription from your GP. For moderate to severe symptoms, a spray that contains corticosteroid plus antihistamine can now be prescribed by your GP. It is essential to use nasal sprays correctly. Additional types of medication are required on prescription for people who suffer seasonal asthma as well as hay fever symptoms. Always see your doctor if you have these types of symptoms. Nasal sprays that contain decongestants may be useful on the worst days or for additional relief of congestion for an exam or special occasion but should not be used regularly because after a few days use, they can make symptoms worse. 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. 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?

Corticosteroid tablets, taken for a few days can help to relieve severe symptoms. They should be used together with a corticosteroid/antihistamine nasal spray. These have to be prescribed by a doctor. Specific allergen immunotherapy (or desensitisation) is a treatment for those with very severe allergic rhinitis despite correct use of all prescribed medication. It involves regular application of 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 can reduce the progression of allergic rhinitis to asthma. It has been used for many decades but must be prescribed and controlled by a hospital allergy specialist, as there are some risks involved. As immunotherapy is such an intensive and timeconsuming treatment,

it is currently used only for those with extreme 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

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 is needed if the trigger is not obvious or if exact identification is needed for immunotherapy. Skin prick test or blood tests (specific IgE to the allergen to be tested) are the correct tests.

Clinical contributions:

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Additional Resources / References

Immunotherapy Factsheet

<https://www.allergyuk.org/resources/immunotherapy-factsheet/>

Pollens and Moulds in the Garden Factsheet

<https://www.allergyuk.org/resources/pollens-and-moulds-in-the-garden-factsheet/>

Oral Allergy Syndrome (Pollen Foods Syndrome) Factsheet

<https://www.allergyuk.org/resources/oral-allergy-syndrome-pollen-food-syndrome-factsheet/>

This Factsheet was prepared by Allergy UK's Clinical Team and made possible by the support of HayMax.

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