

Your quick guide to: Pollen and Moulds in the Garden

Everyone loves to be in the garden on a sunny day, but for those with allergies it can make gardening, or just relaxing, a miserable time. Allergies cannot be cured, but avoiding contact with the allergen that triggers your symptoms may reduce the symptoms of the allergy. Find out what you can do to avoid your triggers.

Something in the air

Of all airborne allergens that we breathe in outdoors, pollens and mould spores are the most common and problematic. Typical hay fever symptoms are a runny nose, itchy and watery eyes, sneezing, and a feeling of nasal congestion. Gardens can be designed to reduce exposure to allergens like pollen and moulds. The first principle of treating allergy is avoidance. Total avoidance by staying indoors is not a realistic option, but reducing contact with allergens is possible, particularly where gardens are enclosed. Understanding the principles of what to avoid, when and where, is the key to managing your allergy. Reduced exposure to airborne allergens is also helpful to eczema and asthma sufferers, whose condition is sometimes worsened by pollen and spore triggers - especially if they also have allergic hay fever.

Why is it important?

Instances of hay fever (allergic rhinitis) have increased dramatically in the past 15 years. People with hay fever are at higher risk of experiencing asthma attacks and some people with eczema experience a worsening of their skin symptoms after contact with airborne allergens, such as pollens and moulds.

Pollen

Pollen is the male sperm of the plant world. Pollen is high in protein, making it very allergenic. Pollen is transferred from male to female parts of the flower usually by wind or by insects. Airborne pollen is particularly fine and is carried freely in the breeze. The pollen that's picked up and deposited by insects is generally stickier

and heavier, and less likely to irritate people with respiratory problems. Thus plants that attract beneficial insects are good for biodiversity and people too: a win-win formula.

Pollen highs and lows

Pollen levels are at their highest at the beginning of the day, when they rise with the warming air, and at the end of the day when it's cooling down. Counts will increase in dry warm weather, especially if it's windy. So avoid going outside – and especially avoid strenuous activity – at these times. Remember to take necessary precautions such as protective eyewear and medications e.g. antihistamines to help prevent symptoms.

In the summer months pollen count broadcasts will help to guide you. But it is important to note pollens of one species or another are present from January through to October. Trees tend to pollinate in spring, from January to May. Then in late spring or early summer the grass pollen season kicks in. Late summer is the season for weed pollens.

The pollen calendar will chart which common trees, grasses and weeds pollinate when. In May, for example, oak is the main allergenic pollen – it affects about 20 per cent of hay fever sufferers.

If you are allergic to grass pollen, be mindful that high counts will feature from the end of May in the extreme south and the first few days of June in the south and central areas. The grass pollen season will spread northwards over the following week or two.

Tree and shrub pollen

The most recognisable, and also most hazardous, sources of airborne pollen are certain trees and shrubs particularly if they have catkins. These include alder, ash, beech, birch, elm, ginkgo, hazel, mulberry, juniper, oak, pine, poplar, sweet chestnut, walnut and yew. Of these trees, birch is one of the most potent – it can trigger not

Key facts:

Limit outdoor activity during pollination periods when the **pollen** or **mould count is high**. This will lessen the impact

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Grass pollen is the **most common** trigger of hay fever with **95%** of people suffering in the **UK**

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only hay fever, but also oral allergies (i.e. allergies to certain foods). In recent years Birch has become very popular to plant as a street or garden tree, distinguished by its very attractive silvery bark. Some of these trees and shrubs are dioecious, which means male and females are separate plants.

Generally speaking the horticultural industry has focused on production of male plants, especially for street trees, as (unlike the females) these don't bear fruit which causes a mess and slip hazard on the pavement. For lower pollen levels in the garden, plant females rather than males of the species.

Grass pollen

Grass pollen is the most common trigger of hay fever with 95 per cent of people suffering in the UK. Grass pollen is mostly present in the summer months, in both ornamental grasses, and in lawns and meadows. However, the pollen can be reduced by the regular mowing of lawns. One option is to replace real grass with an artificial lawn.

Flower pollen

If you're choosing trees, shrubs and flowers to plant in a garden, the species with flowers that attract insects are the best. Especially you should opt for flowers where insects have to search for the nectar. Often these blooms are trumpet-shaped; many are large and highly coloured. Generally double-flowers are better than single flowers for lowering pollen levels in the garden.

Right plant, right person, right place

Of course there are exceptions to every rule, and the impact of an allergen often depends on the circumstances. The wrong (high pollen) shrub in a confined space can cause more problems than the same shrub in a more open space. Sometimes it's a matter of height in relation to your

nose and eye level. For example, the pollen of ceanothus (commonly known as Californian lilac) is quite sticky and heavy. If it's planted as ground cover or a shrub at the back of a border, the pollen will land in the soil and not be an airborne problem. But whoever sits underneath a ceanothus tree is likely to get a shower of pollen, particularly on a breezy late spring day.

Scent and touch

There are other factors to be aware of too. Some plants cause skin reactions when you touch them – these are often characterised by hairy stems or leaves. Strong perfume should also be avoided. Flowers that attract insects through their scent may trigger some people with sensitivity to perfumes. White flowers commonly are more highly scented.

Moulds

Moulds belong to the enormous genus of fungi – a broad term that includes puffballs, mushrooms and brackets or fruiting bodies. Fungi are natural decomposers; their eco-function is to break down organic matter, generating nutrients that enrich the soil. Outdoors, most moulds live on dead vegetable matter – typically the compost heap, piles of fallen leaves in the autumn, or dead branches and damp timber structures such as the retaining walls of raised beds, made from sleepers.

Fungi reproduce by spores that are released into the atmosphere – extremely fine particles that, when breathed in, can reach beyond the nostrils down into the lungs. Spores are even finer than pollens and fill the air from spring till late autumn. Most outdoor moulds become dormant during the winter; when the ground is frozen spores are trapped and the air is generally clearer.

The character and behaviour of spores changes with the season and local conditions. Mould counts are likely to

change quickly, depending on the weather. Certain spore types reach peak levels in dry, breezy weather in summertime. Some need high humidity, fog or dew to release spores. This latter group is abundant at night and during rainy periods – typically during the autumn.

The greatest source of spores in the garden is from turning over a compost heap and spreading its contents. If this has to be done, either do the job when it's raining (to wash the spores back into the ground naturally), wear a face mask, or – better still – ask someone else to do it!

TOP TIPS for positive avoidance

A matter of timing

- Limit outdoor activity during pollination periods when the pollen or mould count is high. This will lessen the amount you inhale
- If you suffer from hay fever, don't hang clothes outside to dry in case they pick up pollen
- Keep a weather eye on 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.

Have fun outdoors, but...

- People suffering from eczema should avoid rolling in the grass.
- Avoid the temptation of kicking autumn leaves about • If you're allergic to mould spores, don't walk in the woods in mild damp conditions or among rotting leaves.

Open or closed

- Close windows during high pollen and spore counts
- Whenever possible, walk or cycle with an appropriate mask rather than travel by car, because the car is a very

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confined space that's liable to trap particulates, including pollen and spores.

Good gardening

- Use low allergen mulch rather than organic compost, wherever possible
- If you have real lawn, make sure it's mown regularly, and kept quite short – to prevent the flowers from forming
- Consider alternatives to real lawn – such as decking, shingle, or artificial turf
- Do not use a strimmer, as this can flick sap up onto the skin
- Do not leave grass cuttings on the lawn
- Avoid plants which release lots of pollen into the air
- Avoid using ferns as these release spores
- Plant low pollen plants
- Keep the compost heap covered to prevent the release of mould spores
- Avoid growing climbing plants near windows.

A change of air

- Limit time spent outdoors in urban

areas and by heavy traffic routes. In rural areas, beware of harvesting time. Sea breezes blow pollen inland, so escape to the coast to alleviate your symptoms.

Wear Protective Gear

- Wear goggles, gloves, eyewear, protective clothing and remove them before going indoors. Showering will help remove any residual allergens
- Avoid mowing lawns or raking leaves yourself. If you must perform these tasks, use a filtration face mask (see Allergy UK's products website)
- Wear wraparound sunglasses when outdoors to keep pollen allergens out of your eyes
- Wear a hat with a peak or large brim can help keep pollens from your eyes, hair and face
- Choose hypo-allergenic eye make-up, especially mascara
- Use goggles when splashing about in a pool
- Splash your eyes with water to remove any allergens.

Further precautions

- Use a saline nasal wash to remove pollens and allergens

- Apply an effective allergen barrier balm around the edge of each nostril to trap or block pollens and other allergens and help prevent a reaction. Allergen barriers are available as balms or gel nasal sprays and some people have found petroleum jelly can help
- On high pollen days, shower and wash your hair after arriving home and change your clothing
- If you suffer symptoms indoors too, a good air filter should help – but make sure there's no high pollen or spore producing plants/ material by the air conditioning unit outside
- Avoid drying washing on a clothes-line outside when pollen counts are high.

Clinical contributions:

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Additional Resources / References

Hay Fever & Allergic Rhinitis

<https://www.allergyuk.org/resources/allergic-rhinitis-and-hay-fever-fact-sheet/>

Immunotherapy

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

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

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