



## Medicine for Managers

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# Hay Fever

As Alfred, Lord Tennyson could so easily have said, “In spring a young person’s fancy lightly turns to thoughts of hay fever”. It is the most common form of allergy and one in five of the population has had hay fever at some time. Pollen, as the cause of hay fever, has been known for one hundred and fifty years. For many it is an absolute scourge, making day-to-day life very difficult during the season.

Hay fever (allergic rhinitis) is due to a hypersensitivity to pollen. In other words the body over-reacts to exposure to the pollen antigen.

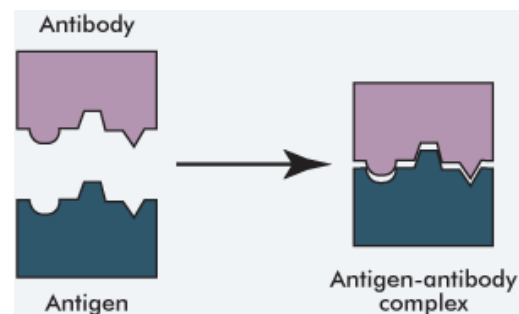
There are a number of different pollens which can induce hay fever and the type depends on the particular pollen implicated.

In spring (February to June), hay fever is usually the result of tree pollen, in early summer (May to July) it results from grass pollen and pollen from various weeds can cause the symptoms throughout the summer and early autumn (June to September). The symptoms are worst when the particular pollen is at its highest. For some unfortunate sufferers symptoms are more prolonged if they are sensitive to more than one type of pollen and the most allergic of sufferers (atopic individuals) may have

symptoms that last until late in the Autumn.

A pollen particle is simply an antigen. When an antigen enters the body, the body produces an antibody which neutralises the antigen. Imagine an antigen as a lock and an

antibody as a key which fits it and makes it ineffective.



The mechanism is designed to protect the body against attacks from foreign proteins such as infections which the

body recognises as a threat and neutralises. In the case of pollen the body's reaction is inappropriate and often excessive. If the body is repeatedly exposed the reaction may become more vigorous with the development of the classic symptoms.

It is not understood why the immune system works as it does with pollen but the risk of developing symptoms appears to be increased if:

- The individual inhales smoke during childhood
- The individual has multiple allergies
- There is a family history
- Diesel fumes are also present



The classic symptoms are:

- Sneezing
- Nasal congestion
- Itchy eyes and conjunctivitis (allergic)
- Headache and face-ache due to blocked sinuses
- Itchy or sore throat
- Breathlessness and wheezing

For some patients who have asthma, the development of hay fever may result in an exacerbation of cough,

wheezing, breathlessness and chest tightening.

The diagnosis of hay fever is not usually in doubt. The characteristic features, together with the timing in the year, usually makes the diagnosis beyond dispute. More persistent 'hay-fever type' symptoms, called perennial rhinitis, are usually due to such allergens as dust mites, moulds, birds, etc.

Techniques available for identifying the nature of the allergens are either skin patch or prick testing. Using the skin test a positive reaction where the skin becomes puffy, red and itchy, indicates the allergy. The blood test, to identify the specific antibody, is normally used where skin testing is appropriate, in circumstances for example where patients are very atopic (allergic) or where they have eczema.

The mainstay of treatment for hay fever is with antihistamines which are available over the counter in pharmacies. The traditional ones included chlorfenamine (Piriton) which are effective but can cause drowsiness. The more modern ones, such as loratadine, cetirizine and fexofenadine do not generally induce symptoms of drowsiness. Antihistamines are best for treating sneezing and itching but are less effective with other symptoms. They are available as tablets and as nasal sprays.

Steroids can also be used in the form of a nasal spray and reduce nasal

inflammation to diminish the symptoms of congestion and irritation.

Sodium cromoglycate (*Opticrom*) eye drops and nasal spray are an alternative anti-allergic preparation which may be effective but it does normally require four-times daily usage.

Very occasionally, in very severe cases of hay fever, a long-acting steroid injection may be given to suppress the allergic features of hay fever. The drug (for example triamcinolone, sold as *Kenalog*, is given by deep intramuscular injection and may produce a marked improvement. Its use is limited by concerns about the general suppression of the sensitivity response. It may suppress the body's ability to fight infection and depress the body's own steroid production.

For some people there is no alternative but to try to avoid exposure to pollen. In such circumstances it may involve staying indoors at peak periods, avoiding cigarette smoke, avoiding animals or bringing fresh flowers into the house.



Sufferers should monitor risk with the pollen forecasts provided with the

weather forecasts. Symptoms associated with pollen usually occur when the count is above 50.

- Low - less than 30 grains/cu.m of air
- Moderate - 30-49 grains/cu m of air
- High - 50-149 grains/cu m of air
- Very high - 150 or more grains/cu m of air

Hay fever is an annual burden for many people which causes distress and misery. New sufferers develop every year as they become sensitised to pollen but thousands of existing sufferers cease to have symptoms because the repeated exposure results in them desensitising themselves.

So effective medication, avoidance of the worst of exposure and hoping your body's defence mechanism successfully eliminates the problem are the best approaches!

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