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Let's talk about hay fever

As we enter summer, we look forward to brighter days and warmer weather and hope for sunshine. This is sadly not the case for the one in five people in Ireland who suffer from hay fever. Hay fever brings all the misery of the common cold, but symptoms can last the entire summer.

The symptoms of hay fever, or Allergic Rhinitis, are caused when a person has an allergic reaction to pollen. Pollen contains proteins that can cause the nose, eyes, throat and sinuses to become swollen, irritated and inflamed. Trees, grass and plants release pollen as part of their reproductive process. Mould and fungi also release spores. These tiny reproductive particles can trigger this allergic reaction.

People with hay fever can experience their symptoms at different times of the year, depending on which pollens or spores they are allergic to:

- Tree pollen, released during spring;
- Grass pollen, released during the end of spring and beginning of summer; and
- Weed pollen, released any time from early spring to late autumn.

During the current health crisis, it is important that people understand how to recognise the key differences between COVID-19 and hay fever, and stay on top of hay fever symptoms, for example, a fever or chills is common with COVID-19 but isn't seen in those suffering with hay fever. *Table 1* explains the key differences.

Hay fever is usually at its height in spring and summer when there is more pollen in the air. Typical symptoms include:

- Sneezing;
- Itchy, blocked or runny nose;
- Red, itchy or watery eyes;
- Itchy throat, inner ear or mouth;
- Post nasal drip;
- Headaches; and
- Loss of concentration and generally feeling unwell.

In an ideal world, the most effective way to control hay fever would be to avoid exposure to pollen. However, it's very difficult to avoid pollen, particularly during the summer months when we all want to spend more time outdoors. Luckily, this miserable condition can be managed with some careful lifestyle adjustments and a variety of OTC products.

Table 1: **Differences between hay fever and COVID-19**

SYMPTOMS	HAY FEVER	COVID-19
Sneezing	Common	No
Runny or blocked nose	Common	Rare
Itchy/watery/red eyes	Common	No
Itchy mouth/nose/ears	Common	No
Earache	Sometimes	No
Cough	Sometimes (night-time)	Common (usually dry and persistent)
Loss of smell	Sometimes	Sometimes
Headache	Sometimes	Sometimes
Shortness of breath	Sometimes	Sometimes
Fatigue	Sometimes	Sometimes
Fever (above 38°C) or chills	No	Common
Aches and pains	No	Sometimes
Sore throat	No	Sometimes

Self-care advice

It is sometimes possible to prevent the symptoms of hay fever by taking some basic precautions, such as:

- Not drying clothes outdoors as they become coated in pollen. Tumble drying is better in this instance;
- Showering after an extended period outside will wash pollen out of the hair and off skin;
- Keeping doors and windows closed, especially during mid-morning and late afternoon, as this is when the pollen count is usually highest;
- Vacuuming regularly using a vacuum cleaner with a High Efficiency Particulate Air (HEPA) filter and dusting with a damp cloth can help remove pollen and spores from the air and surfaces;
- Ideally, furry pets should be kept outside during the hay fever season. If they do come indoors there will be residual pollen on their coat, which can be transferred to carpets and soft furnishings; and
- Avoiding going outside when the pollen count is very high is recommended. Daily pollen counts are given with weather reports during the summer months, and pollen trackers are available online at www.asthma.ie.

When going outdoors

- Wraparound sunglasses will reduce pollen entering the eyes;
- Keeping car windows closed when driving is advisable. Pollen filters can be fitted to the air vents in cars;
- Avoiding grassy areas like parks and fields is best but, if unavoidable, e.g. mowing the lawn, then wearing a dust mask is advisable;
- When exercising outdoors smearing Vaseline around the inside of the nostrils will trap pollen and spores and prevent them reaching the lining of the nose; and
- It makes sense to avoid smoke, cigarette smoke, barbeque smoke or fumes from traffic, as this will further aggravate symptoms.

There is currently no cure for hay fever, but most people should be able to relieve symptoms with treatment, at least to a certain extent.

Treatment options for hay fever include antihistamines, which can help prevent the allergic reaction from happening and corticosteroids to reduce levels of inflammation and swelling.

Oral antihistamines

Antihistamines treat hay fever by blocking the action of histamine thus preventing the symptoms of the allergic reaction from occurring. Antihistamines are usually effective at treating itching, sneezing and watery eyes, but they may not help with clearing a blocked nose.

Antihistamine eye drops

While systemic antihistamines often relieve ocular allergic symptoms, patients may experience systemic adverse effects, such as drowsiness and dry mouth.

Topical antihistamines competitively and reversibly block ocular histamine receptors and relieve itching and redness, but only for a short time. Multiple dosing times are required for most of these preparations. The addition of a topical decongestant can be useful to reduce redness and puffiness in the ocular orbit.

Corticosteroid nasal sprays and drops

Corticosteroids are used to treat hay fever because of their potent anti-inflammatory effect. When pollen triggers an allergic reaction, the inside of the nose becomes inflamed. Topical application of corticosteroids can reduce this inflammation and prevent the symptoms of hay fever. Corticosteroids are more effective than antihistamine tablets at preventing and relieving nasal symptoms, including sneezing and congestion. They can also relieve itchy, watery eyes. They are most effective if used regularly and, ideally, before symptoms begin.

Corticosteroid tablets

For rapid short-term relief from severe symptoms a short course of oral steroids will usually suppress even the most resistant symptoms, giving antihistamines and regular inhaled steroids a chance to work.

Steroid injections

Long-acting steroid injections were commonly used for treatment of hay fever in the past, but they are no longer recommended as routine management due to the risk of serious side-effects, e.g. Osteoporosis, Hypertension, Diabetes and Muscle Atrophy.

Leukotriene receptor antagonists

Leukotrienes are another chemical released and, together with histamine, they cause inflammation in the nasal passages, throat and eyes. A leukotriene receptor antagonist blocks the leukotriene receptors, thereby rendering the effects of leukotrienes useless. They are licensed for use by asthmatic patients who also experience seasonal rhinitis. It is also important to note that leukotriene receptor antagonists can be less effective when taken with food.

Decongestants

Topical decongestant nasal sprays (used for less than seven days) are effective in reducing nasal blockage and help penetration of topical steroid nose sprays. Rebound congestion is always a problem if used continuously. Oral decongestants, often combined with an antihistamine, don't cause rebound symptoms. They are stimulants, however, and can cause sleep disturbance. Their use is also limited in hypertension and diabetes.

Saline nasal spray/rinse

Washing the nasal passages with saline may reduce symptoms and can offer relief in conjunction with conventional treatment.

Immunotherapy

Immunotherapy for pollen and dust mite allergies, offered mostly through private clinics, is now available in Ireland. This involves giving gradually increasing doses of the allergen to which the person is allergic. This incremental increase causes the immune system to become less sensitive to the allergen particle, possibly by production of an antibody, which reduces the symptoms of allergy when the allergen is encountered in the future. Immunotherapy also reduces the inflammation that characterises rhinitis. Immunotherapy may take months, or even years, to be effective and carries a risk of anaphylaxis. It is not recommended for people who have persistent asthma with hay fever.

Complicating factors

Infections can be a complication of hay fever. The swelling of the nasal passages that occurs can prevent mucus from draining out of the sinuses. This can make them more vulnerable to infection. The Eustachian tube can become blocked by a build-up of mucus leading to a middle-ear infection. This is more common in children as their Eustachian tube is smaller than an adult's.

Although all of these therapies and strategies are effective, it will often be necessary for sufferers to use a combination of treatments to achieve symptom relief and prevent recurrence. A treatment plan offered by their pharmacist will often be the best approach.

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