Four Seasons

Managing your **asthma** and your **allergic rhinitis** throughout the seasons

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Contents

Four Seasons is packed full of useful information about asthma and allergic rhinitis with useful tips on minimising your exposure to allergens and a symptom diary to enable you to record and monitor your symptoms.

Foreword

If you are an asthma sufferer but find that you are getting cold like symptoms throughout the year, it may be that you are also suffering from allergic rhinitis.

Seasonal allergic rhinitis or hayfever affects sufferers throughout the summer months, mostly between May and August when the grass pollen levels are at their highest. However, other airborne allergens such as tree pollens or weeds can cause the same symptoms, extending the season from as early as February through to October.

If you are unlucky enough to have hayfever like symptoms all year round, you may be reacting to other common substances that we find in the home, allergens like house dust mites, pet allergens or mould spores can be responsible for perennial rhinitis, causing people to think that they have a cold all year round. This can affect both your quality of life and your day-to-day activities.

Research has shown that allergic rhinitis and asthma are closely linked and for some people, allergic rhinitis, if not well managed, may cause asthma symptoms to worsen. It is now recognised that allergic rhinitis is present in up to 80% of asthma sufferers* and most clinical studies now recommend an integrated approach to treating these conditions.

There are however, many things that you can do to help reduce your exposure to allergens. This can have a positive effect on your asthma and allergic rhinitis, and may even reduce the amount of drugs that you need to take.

Four Seasons has been produced to help you better understand the relationship between allergens and allergic rhinitis and the impact that they can have on your asthma. It includes a handy guide on what allergens to look for and when, and useful tips on how to reduce their effects. By understanding your response to certain allergens, we hope that you can reduce your symptoms and enjoy a fuller, healthier life.

Lindsey McManus
Executive Director, Allergy & Services

*Bourdin A. Vachier I. and Chanez P. (2009) Upper airway.1: Allergic rhinitis and asthma; united disease through epithelial cells. *Thorax* 64 pp999-1004

Four Seasons aims to help you understand how to manage the symptoms of both your asthma and allergic rhinitis together in order to help stay healthy and enjoy daily activities more.

This booklet is designed to give you an overview of what allergens you may be affected by and what times of the year exposure to these allergens may be highest. It is designed to be a quick-reference tool that you can use throughout the year to find out more about what might be causing your allergic rhinitis symptoms and exacerbating your asthma.

To help you in doing this, a **symptom diary** has been included at the back of the booklet where you can track when and how often you experience allergic rhinitis and asthma symptoms. By monitoring both types of symptoms, you may start to see similarities and draw comparisons between the two conditions to help you manage them better.

A **peak flow chart** has also been included on which you can log your peak flow measurement on a regular basis and, over time, see whether there may be a pattern between when your peak flow worsens and when you experience allergic rhinitis symptoms.

The symptoms of allergic rhinitis are the typical hayfever symptoms of a runny nose, sneezing, watery and itchy eyes, and a feeling of congestion, regardless of the allergen type causing the reaction. As allergic rhinitis and asthma frequently co-exist, appropriate treatment of allergic rhinitis may reduce your asthma symptoms.

Asthma patient's allergy self-assessment

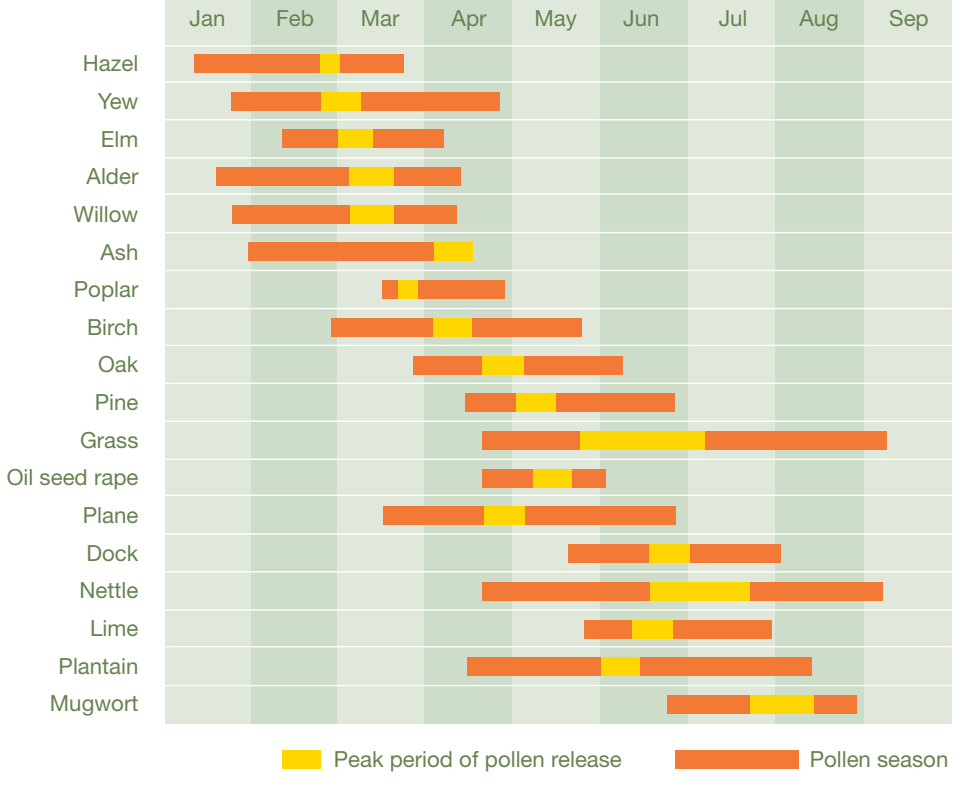
If you answer **YES** to the first question plus one other, you may have allergic rhinitis and may consider discussing this with your doctor or practice nurse, who might be able to help you find an appropriate treatment.

1	During the last year have you experienced symptoms such as nasal congestion, itching nose, watery eyes, sneezing or runny nose during the day?	☐ YES ☐ NO
2	During the last year have you experienced these symptoms at night, such that they make it difficult to fall asleep or awaken you?	☐ YES ☐ NO
3	Do you experience these symptoms more than one day per week?	☐ YES ☐ NO
4	Do these symptoms affect your job, home activities, school work or family activities in a negative way?	☐ YES ☐ NO
5	Do you find that your asthma tends to get worse when these symptoms occur?	☐ YES ☐ NO

We have already highlighted the three most common allergens; pollen, mould spores and dust mites. Whilst all three peak at certain times of the year, they may be present all year round as perennial allergic rhinitis and can therefore be problematic for those who are susceptible to them.

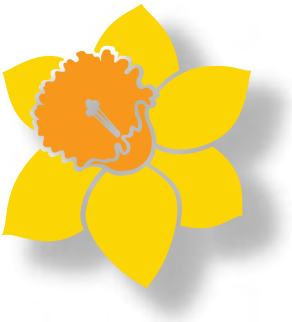
The following diagram depicts when the levels of one of these allergens, pollen, is at its highest:

Pollen levels throughout the year



Useful tips

To help you reduce the effects of allergens throughout the seasons, here are some useful tips from Allergy Nurse Consultant, Maureen Jenkins.



- Check the pollen count on a daily basis if available. During the hayfever season, weather reports on TV, radio and in the newspapers provide the latest pollen levels daily
- Keep doors and windows closed when pollen counts are at their highest, i.e. in the early morning and early evening
- Use a damp cloth or a microfibre 'e-cloth' when cleaning to avoid disturbing dust and causing it to disperse into the air
- Wash all bedding at high temperatures. Wash bedding weekly in a hot cycle (55-60ºC)
- Do not dry clothes outdoors during high pollen times, especially during the early morning and evening
- Do not dry clothes indoors as moisture and humidity can cause mould spores to form. Avoid using 'plug-in' air fresheners as the fumes emitted from such appliances may irritate the airways of those sensitive to them
- Shower or bath before going to bed to remove excess pollen from hair and your body
- Soft toys can harbour dust mites. Wash at high temperatures or place in the freezer for 24 hours and then wash. Check washing instructions beforehand

In addition to this booklet, Allergy UK is offering a new, web-based service providing up-to-the-minute information and advice on living with allergic rhinitis and asthma throughout the year. To sign-up to this free e-alert service, include your details on the survey when responding. More information can be found at www.allergyuk.org.

Did you know?

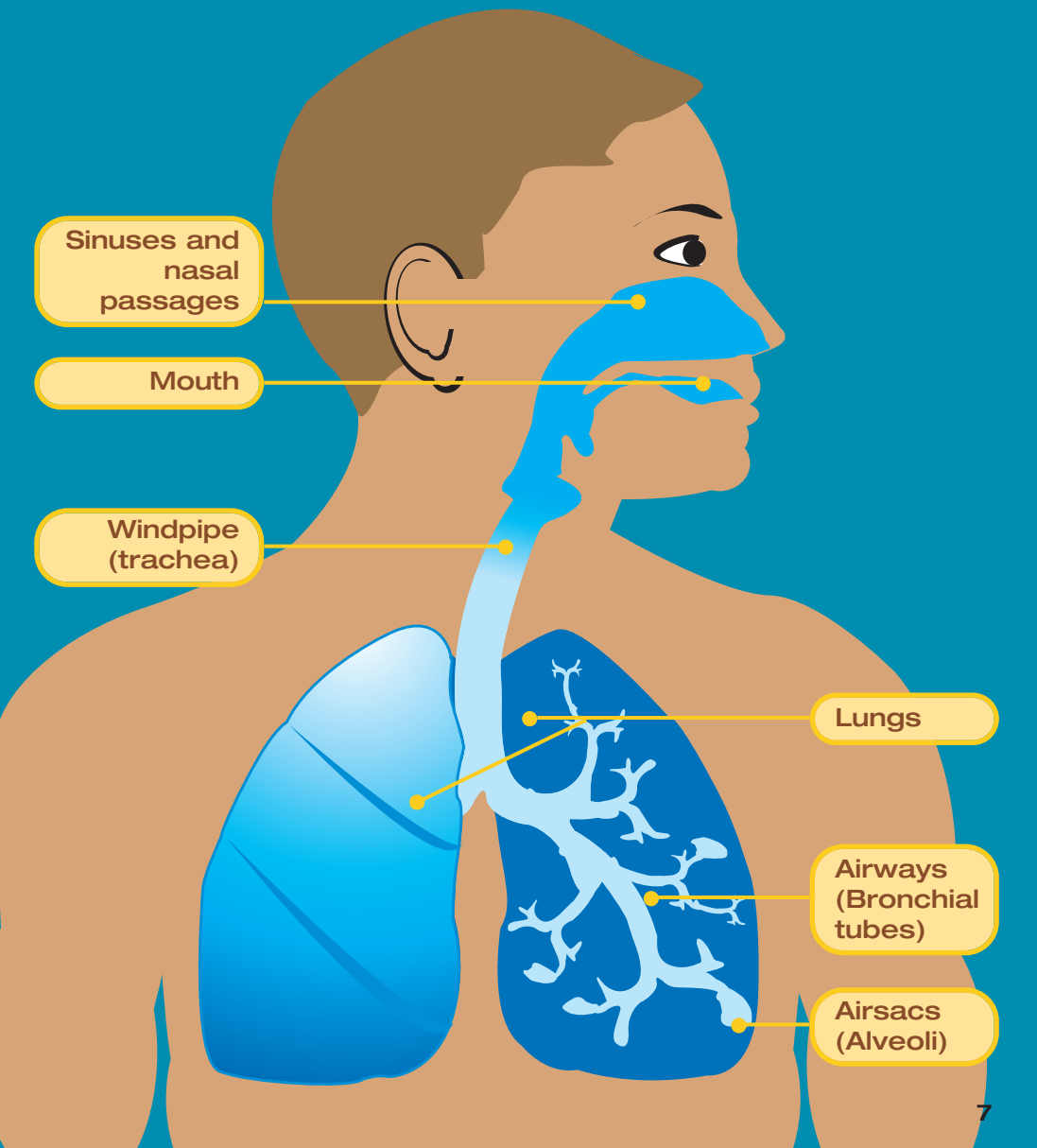
- Surveys of patients have revealed that over 40% of patients who have asthma say they have allergic rhinitis symptoms. Symptoms may be severe enough to have an effect on their quality of life. Both are conditions that affect the body's airways.

- Both asthma and allergic rhinitis can be caused by exposure to allergens and the two conditions frequently co-exist. Several domestic and outdoor allergens are known to trigger asthma and allergic rhinitis. It has been found that allergic rhinitis may make asthma worse and that it may also be a risk factor in the development of asthma.

- Asthma and allergic rhinitis both affect the respiratory system. Asthma occurs in the lower part, i.e. the bronchial tubes in the lung, whilst allergic rhinitis is a condition of the upper part, namely the sinuses and nasal passages. Put simply, both asthma and allergic rhinitis are conditions that occur in different parts of a single respiratory system and some consider as manifestations of one respiratory condition.

More information about treatment options is provided on page 18 of the booklet.

The respiratory system



About asthma

What is it?

Asthma is a complex condition that affects the airways, the small tubes that carry air in and out of the lungs. Asthma causes the lower airways to tighten making it difficult for air to travel freely. Inflammation of the lining of these airways may also cause an increase in the production of mucus, making the obstruction worse; the cough that may develop is an attempt to clear the airways. All of these changes make breathing difficult and sometimes cause a feeling of not getting enough air into the lungs.

What are the symptoms?

Common symptoms include cough, shortness of breath, wheezing, chest tightness and excess mucus production. It is important to remember that symptoms can vary between individuals and if you experience these symptoms you should seek medical advice.

What causes it?

Asthma is a complex disease with many contributing factors:

- Asthma can be hereditary
- Changes in how we live our lives, for example our diet, lifestyle, cleanliness and housing may have contributed to the rise in asthma over the last few decades
- An increase in urbanisation and subsequent pollution
- Smoking is a significant risk factor for asthma in adults and smoking during pregnancy is a significant risk factor for the development of asthma in children
- Severe respiratory infection with respiratory synctial virus may be a risk factor for the development of asthma in later life

There are a number of common allergic and non-allergic triggers that can provoke asthma symptoms, many of which you are probably already aware of. Allergic triggers include house dust mites, animal allergens, mould and pollen whilst non-allergic triggers include exercise, viruses (i.e. colds or flu), cold air and indoor gas pollutants of which cigarette smoke is a major source. Both forms of trigger can have an effect on your asthma and how it makes you feel.

There are numerous ways in which you can reduce your exposure to allergens and these can be found in the seasons sections of the booklet.

About allergic rhinitis

What is it?

Allergic rhinitis is an immune response or allergic reaction triggered by certain allergens which are normally harmless to most individuals. Among sensitive individuals, when pollen is inhaled the immune system is triggered causing the release of substances within the body that may cause symptoms, particularly in the nose and sinuses.

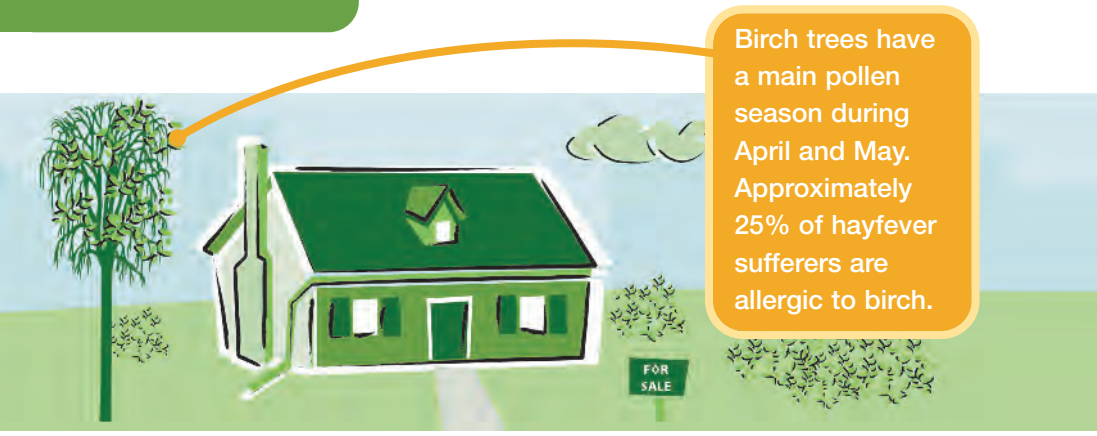
What are the symptoms?

Symptoms include a runny nose, blocked nose, sneezing and nasal itching.

What causes it?

As with asthma, it is not known what causes it and why some people are more susceptible to allergens than others. A sensitive person's immune system recognises allergens as foreign and so produces a special type of antibody (IgE) to recognise the invading substance. This causes other blood cells to release chemical substances (including histamine) which together cause the symptoms of an allergic reaction.

Spring



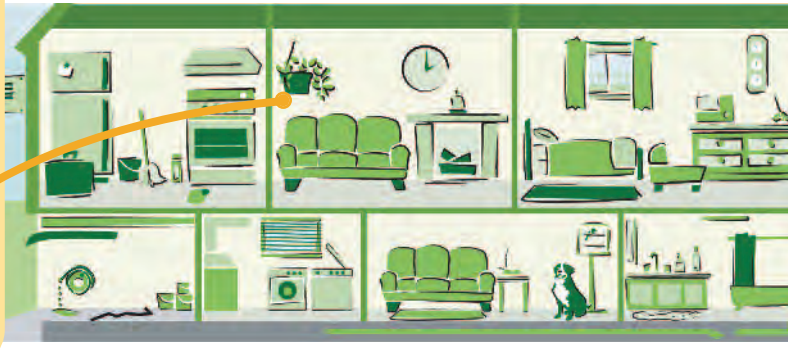
Birch trees have a main pollen season during April and May. Approximately 25% of hayfever sufferers are allergic to birch.

Pollen is in abundance during springtime. When breathed in through the nose by susceptible individuals, pollen may trigger asthma and allergic rhinitis symptoms.

Birch trees including alder and hazel all release pollen during the spring season and can contribute to exacerbations of symptoms. Pollen from birch trees affects about 25% of allergic rhinitis patients and is usually between April and May. The season can last for around four weeks and pollen counts from this variety of tree will be highest on warm, dry days with a mild wind in areas populated by birch trees.

Did you know...?
Pollen rises in the air and falls in the early evening resulting in the highest pollen levels at this time of day.

Springtime is when flowers start to bloom resulting in pollen – try to keep pollen levels down in the home by keeping plants outside or keep low-allergen plants such as honey-suckle or rose.



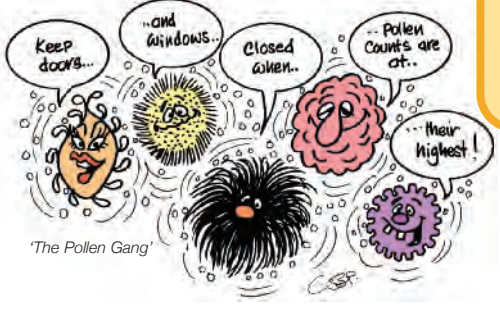
Birch tree pollen also cross-reacts with other members of the birch family including alder and hazel, which flower earlier in the spring.

Pollen from flowers is an added risk as many varieties of flower bloom during the spring months. If spring is your peak allergy season, opposite are some tips from Allergy Nurse Maureen Jenkins to help minimise the effects of spring allergens.

Trigger tips

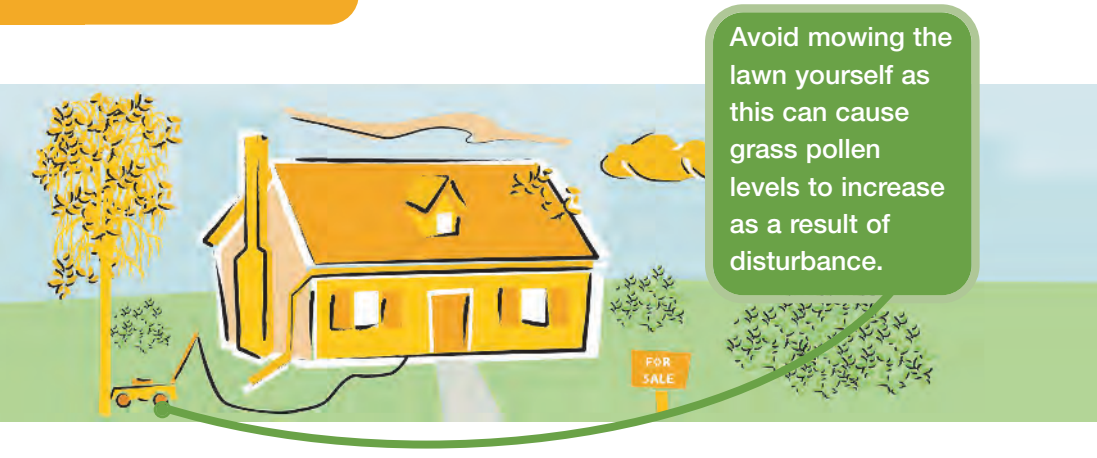
from Allergy Nurse Consultant, Maureen Jenkins

- During the hayfever season, check the pollen count on a daily basis
- Wear sunglasses when pollen counts are at their highest
- Try to keep windows and doors closed in the early morning and early evening to avoid pollen entering and travelling through the house



'The Pollen Gang'

Summer

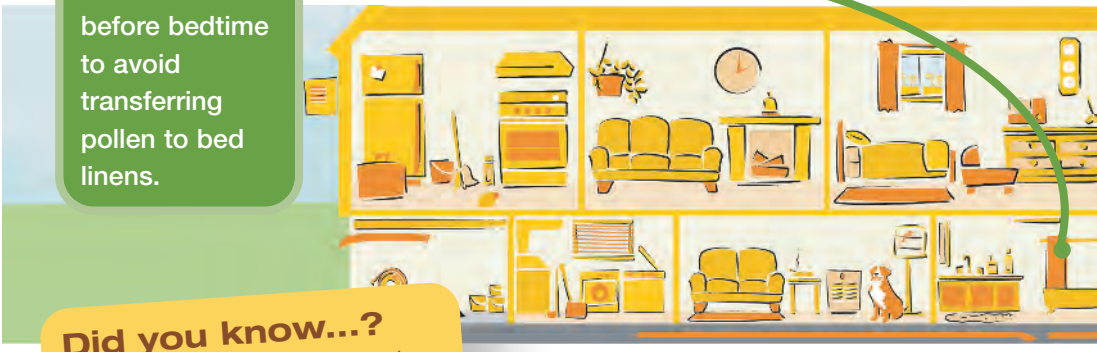


The summer season remains a problematic time for many asthma and allergic rhinitis patients as grass pollen takes over from tree pollen as the prime culprit. The grass pollen season starts in early May and continues to mid-August. With around 90% of allergic rhinitis patients affected by grass pollen, it may be helpful to check the pollen count regularly. This can provide an indication of when you may be affected and enable you to take precautionary measures.

Other types of pollen that emerge in the summer months include nettle, which is typically released in July, and other weed pollens, which are most common in August. Mould spores are also released during the summer months as a result of harvesting.

During the summer, we are also more likely to take advantage of the warm weather and long nights by spending more time outside and many of us take more exercise. Exercise is a common

Shower or bath before bedtime to avoid transferring pollen to bed linens.



Did you know...?

Spring and summer are not the only times of the year when pollen can affect your allergic rhinitis and asthma – tree varieties such as hazel and alder may release pollen outside the hayfever season.

non-allergic trigger for asthma so it is important to remember to carry your medication with you at all times.

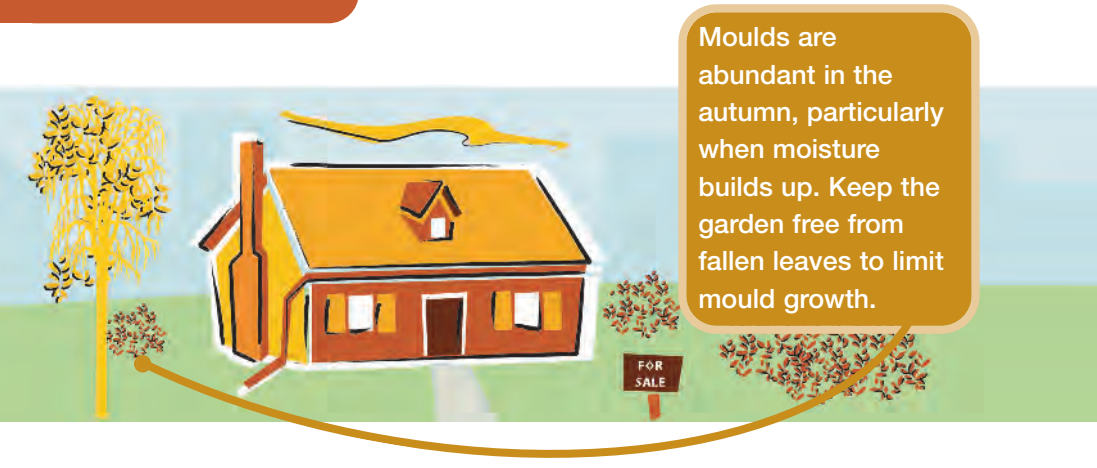
However, living with asthma and allergic rhinitis should not affect your ability to enjoy the great outdoors and on the opposite page there are simple steps recommended by Allergy Nurse Maureen Jenkins that can help reduce your symptoms during this time of year.

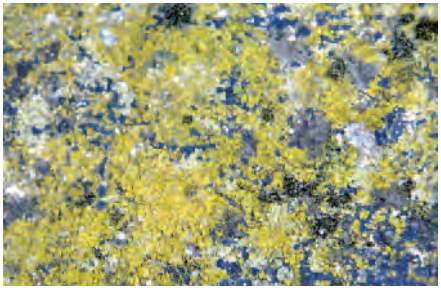
Trigger tips

from Allergy Nurse Consultant, Maureen Jenkins

- **Change your clothing when returning home as pollen clings to hair and clothing and shower or bath before going to bed to avoid pollen transferring to your bedsheets**
- **Pesticides, as with chemical-based cleaning products, may irritate the airways of some people**
- **Be aware that exercising can exacerbate your asthma symptoms so always carry your reliever medication**

Autumn





Autumn is a good time to assess the outside and inside of your home for any places where there is moisture. Check the roof, floors and walls for signs of damp. Start with the roof and check around door and window frames to ensure they are properly sealed. Moisture levels affect the number of mould spores and dust mites in the home which may affect asthma and allergic rhinitis symptoms so it is important to keep the humidity levels in the home as low as possible.

Airborne mould spores increase during damp weather, especially in autumn. Mould spores have been linked with exacerbating asthma symptoms. Fungal spores can be found both outside and inside the home. Outside, woodland areas, forests and gardens can harbour certain types of fungi whilst inside, some varieties can be found in house dust, on ripe fruit and house plant soil.

Mould and fungal spores are difficult to see and often invisible to the naked eye, which makes avoiding exposure difficult. Being mindful of when you experience allergic rhinitis and asthma symptoms

In autumn the central heating is turned back on and windows are closed as the weather becomes cooler. Keep an even temperature in the house and some airflow to reduce humidity and minimise levels of mould and dust mites.

and what environment you are in may help you in identifying the cause of your reaction. For example, if you experience symptoms outside your own home, which then go away when you leave that particular place, this may indicate the presence of dust mites, mould spores or animals that are triggering your symptoms.

If autumn is the season when you are most likely to experience symptoms, here are some useful tips recommended by Allergy Nurse Maureen Jenkins.

Trigger tips

from Allergy Nurse Consultant, Maureen Jenkins

- Keep internal doors shut when cooking or showering to reduce moisture passing through the house
- Use an extractor fan to minimise steam in the bathroom
- Check for any water leaks under sinks, refrigerator, dishwasher, washing machine, as well as around the toilet, bathtub, shower and hot water tank
- Keep the garden clear of fallen leaves and other debris
- Choose the closed type of composter and keep away from the house as these can harbour fungi

Winter

Cold air can trigger asthma symptoms so before heading outside, consider taking preventive medication to help relieve symptoms.

During the winter time, dust mites and mould remain key triggers for asthma and allergic rhinitis but pollen from hazel, willow and alder trees may also cause problems in February and March.

If you have an artificial Christmas tree, wipe this down with a damp cloth as dust may have gathered while it has been stored. It is also advisable to wipe down any ornaments that you have brought out from storage especially for Christmas as these are also likely to be dusty.

Dust mite

You can employ extensive allergen-avoidance measures which may help to reduce the level of dust mites in your home. Allergy UK's website provides comprehensive information on how to do this.

Trigger tips

from Allergy Nurse Consultant, Maureen Jenkins

- Burning candles gives off soot which can act as a trigger so use them for decoration only. If you must burn candles, use the unscented variety to reduce the impact and use a damp cloth to extinguish the flame to minimise soot emission
- Wash bed sheets and other bed linen on a weekly basis on a hot cycle (between 55 and 60°C)
- Store decorations in sealed containers to avoid dust contamination

Managing symptoms of asthma and allergic rhinitis can be a real task for people who suffer from both. While there is no cure for asthma or allergies like allergic rhinitis, there are treatments available that can effectively control symptoms. An overview of these treatments is detailed below.

Treating asthma

There are predominantly two main types of asthma treatment using either reliever treatments and/or preventer treatments

Relievers

A reliever treatment is typically taken during an asthma attack to provide immediate, effective relief of asthma symptoms. It relaxes the muscles around the airways making it easier for air to pass through the airways and in and out of the lungs. Most commonly these are known as bronchodilators, i.e. they dilate the air passages to the lungs, and include short-acting beta-2 agonists and anti-cholinergics. The preferred method of delivery of these drugs is via an inhaler, although alternative tablet and syrup forms also exist.

Preventers

Preventer treatments should be taken regularly to give long-term control of asthma symptoms. They are used to calm inflammation in the airways and make them less likely to react to asthma triggers, aiming to prevent an asthma attack. The most common preventive therapy is inhaled corticosteroids (ICS). However other add on options such as long-acting beta-2 agonists, theophyllines and leukotriene receptor antagonists (anti-leukotrienes) are alternative recommendations.

The treatment options are often used in combination to suit the individual's needs and specific symptoms. Therefore it is not uncommon to have both relievers and preventers as part of your specific asthma treatments and these may vary if your circumstances change.

Treating allergic rhinitis

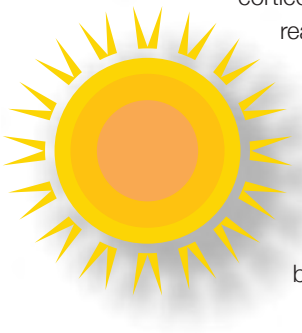
Treatment of allergic rhinitis depends on both the classification of severity and the individual's symptoms

Anti-histamines

Anti-histamines (taken orally or via a nasal spray or eye drops) aim to provide relief of symptoms by lessening the effects of histamine which is one of the chemicals released by the body during an allergic reaction. They will reduce symptoms such as sneezing, runny nose, watery eyes (used locally) and itchy throats. New treatments are designed to reduce drowsiness but there may be some interaction with other medicines and foods. Take advice on their use from your doctor or pharmacist.

Preventer treatments

These aim to prevent symptoms developing by suppressing the allergic reaction. With seasonal allergic rhinitis (hayfever) you need to begin taking them several weeks before the 'high season' for your particular allergic reaction. These preventive treatments are available orally or via eye drops and nasal sprays. Some preventer medications contain corticosteriods which help reduce inflammation due to allergic reactions. If you need to take these long term you'll need to discuss this with your doctor.



Decongestants

These can help relieve a blocked nose, however use is recommended for a limited period only and for a maximum of one week. They are commonly nasal sprays but can also be administered orally.

Treating asthma and seasonal allergic rhinitis together

According to an international group of specialists known as Allergic Rhinitis and its Impact on Asthma (ARIA), all guidelines of asthma and allergic rhinitis suggest that allergen avoidance should be part of a management strategy.

Some medications, including glucocorticosteroids and anti-leukotrienes, are effective against both allergic rhinitis and asthma symptoms. People with both allergic rhinitis and asthma may be prescribed both intranasal and inhaled glucocorticosteroids, if appropriate. Additive side effects may be a concern with dual administration. It is reasonable to monitor growth of children receiving long term treatment with intranasal glucocorticosteroids although recent studies have shown normal growth rates in children treated with newer intranasal corticosteroids. Anti-leukotrienes block the action of inflammatory chemicals called leukotrienes, which can lead to inflammation in both upper and lower airways. Anti-leukotrienes are a class of medication for the treatment of asthma patients with seasonal allergic rhinitis and have been shown to be effective in improving both asthma and allergic rhinitis.

Talk to your doctor, nurse or pharmacist about your symptoms to identify which treatment, if any, is most suitable for you.

A symptom diary is a really useful way to build up a picture of your experience of living with asthma and allergic rhinitis. Hopefully, you will be able to get a better idea of when you might suffer from exacerbated asthma and allergic rhinitis enabling you to help take precautionary measures. It may also be helpful to take your symptom diary along to your next asthma/allergic rhinitis review with your doctor or nurse as they may be able to offer advice on improving your symptoms.

How to fill in your asthma and allergic rhinitis symptom diaries

Use the charts on the next two pages to record when and how often you experience symptoms. Whenever you have an attack, mark this in the box next to the appropriate date in the month. If you have more than one reaction during the day, write this number in the box. At the end of the month, add up the number of reactions you experienced and make a note of the total. By doing this regularly, you should start to see a pattern emerge which will help you to identify your peak seasons.

You may also find it useful to keep a note of what symptoms you experienced.

How to fill in your peak flow chart

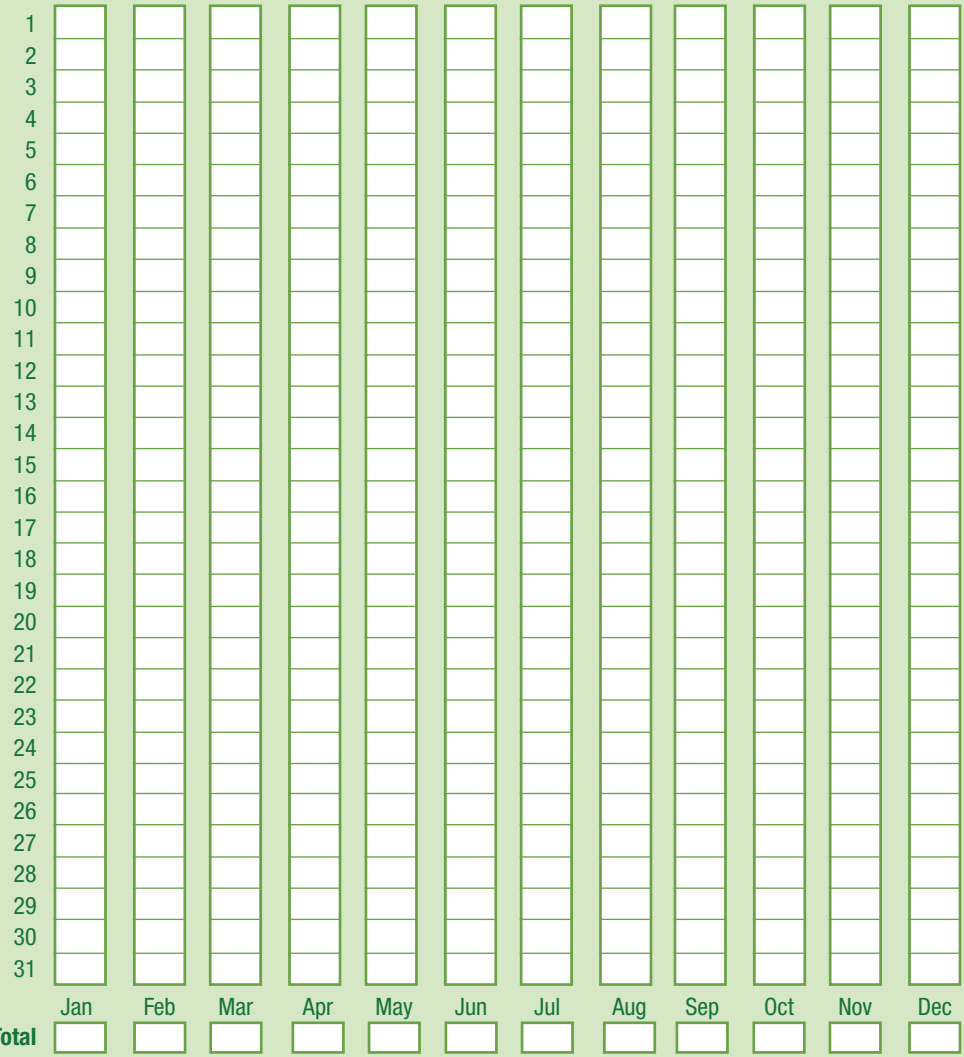
Take your peak flow by blowing into your meter first thing in the morning and first thing in the evening before your treatment. Take your peak flow three times and record the best score by marking a cross on the chart. The peak flow chart overleaf allows you to record readings for every other day in each month.

Common triggers

January	Hazel tree pollen
February	Alder tree pollen
March	Elm pollen
April	Birch pollen
May	Oak pollen
June	Grass pollen
July	Nettle pollen
August	Weed pollen
September	Cladosporium mould
October	Basidiospore fungus
November	Aspergillus fumigatus fungus
December	Dust mites

Asthma symptom diary

Each time you have a reaction, make a note of when and how many in the appropriate box.



Allergic rhinitis symptom diary

Each time you have a reaction, make a note of when and how many in the appropriate box.

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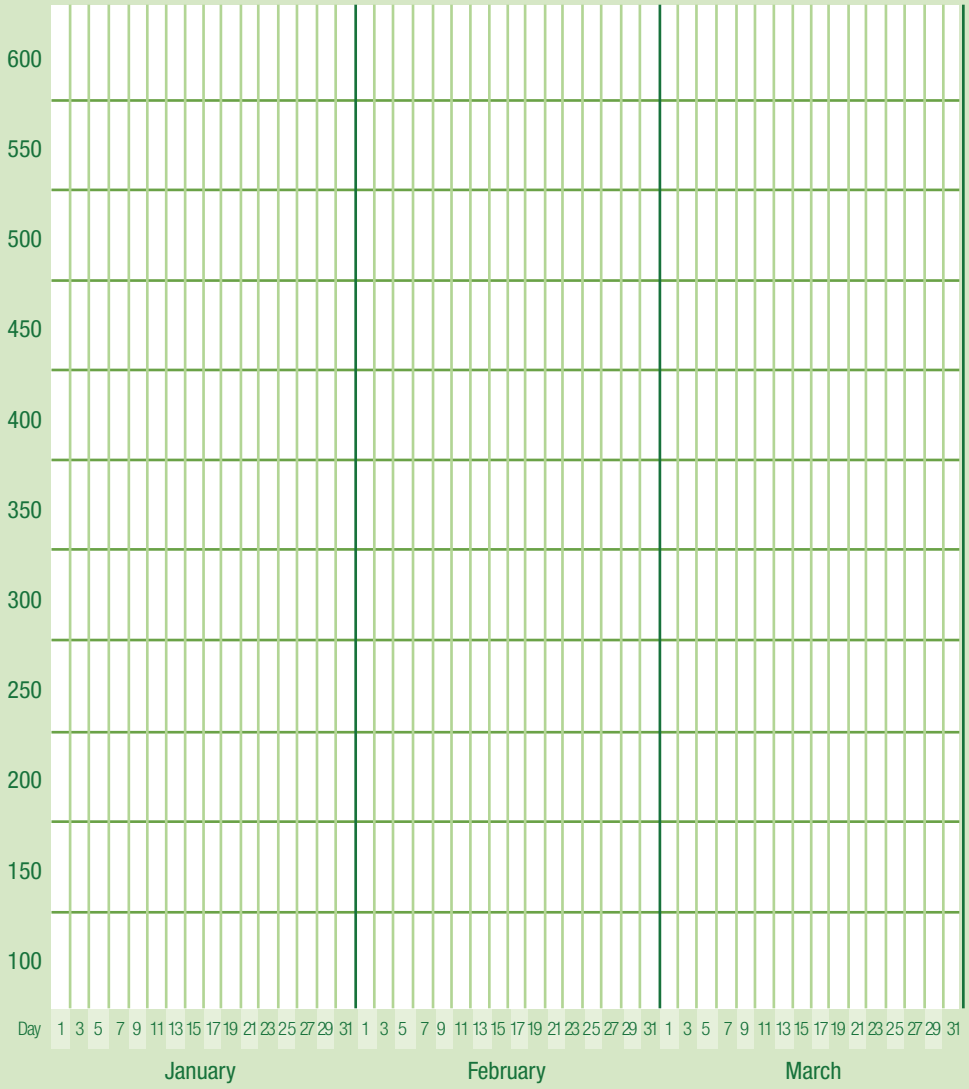
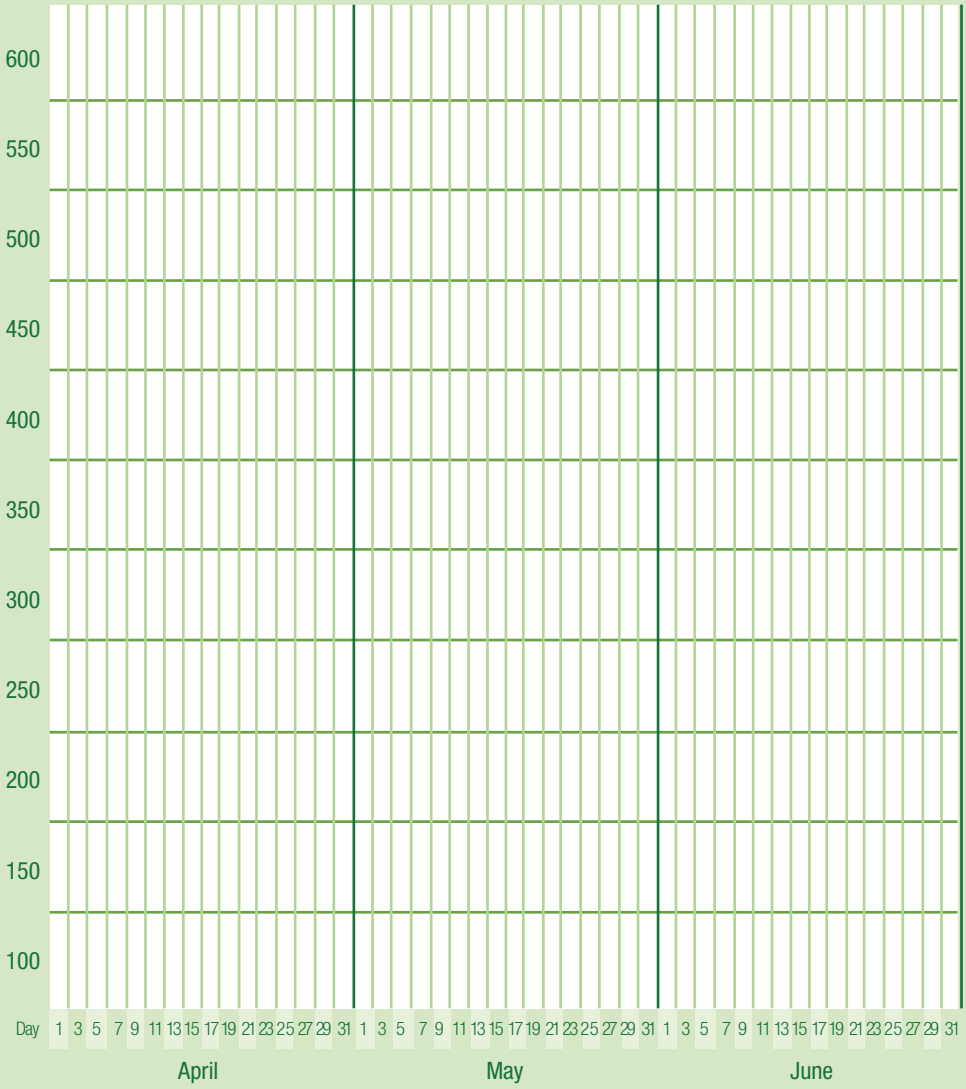
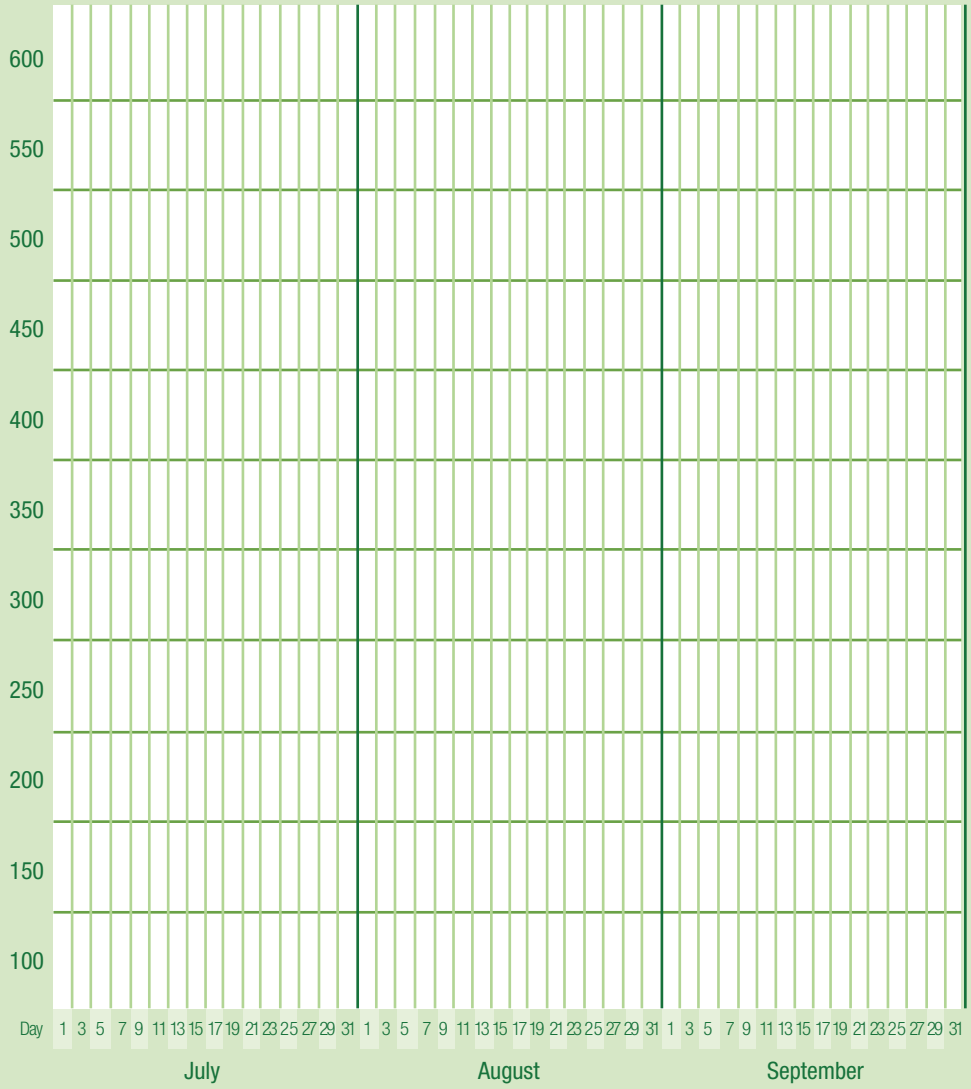
Peak flow chart January - March



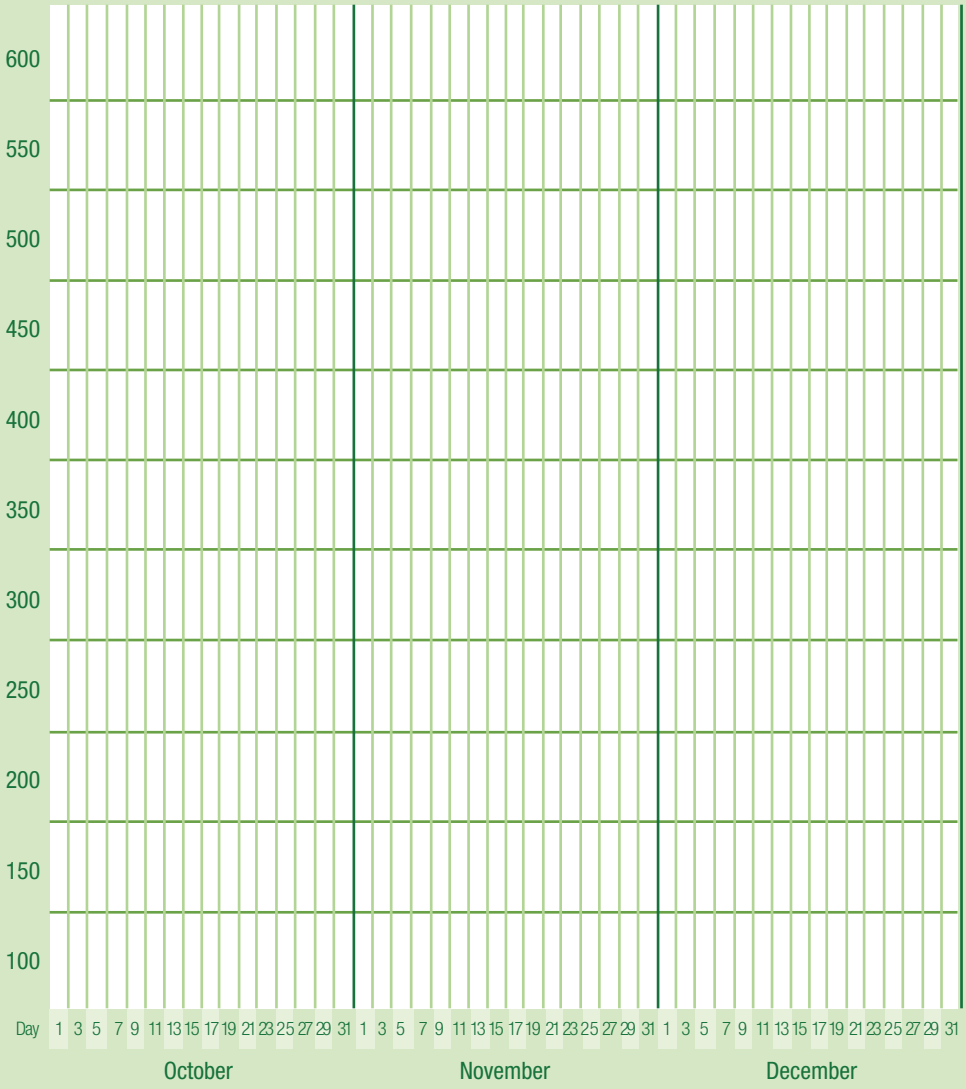
Peak flow chart April - June



Peak flow chart July - September



Peak flow chart October - December



Asthma symptoms

- Coughing – including a cough that keeps you up at night
- Wheezing
- Chest tightness
- Breathlessness

Allergic rhinitis symptoms

- Runny nose
- Sneezing
- Itchy, watery eyes
- Feeling of congestion

Useful websites

For additional information about asthma and allergic rhinitis, you may wish to visit these websites:

Allergy UK
www.allergyuk.org

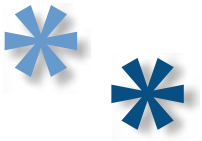
Asthma UK
www.asthmauk.org.uk

Asthma Society of Canada
www.4seasonsofasthma.ca

American Lung Association
www.lungusa.org

Acknowledgements

Brian Platt Cartoons
www.brianplatt-cartoons.co.uk



Four Seasons

Managing your **asthma**
and your **allergic rhinitis**
throughout the seasons

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