

## Patient information from the BMJ Group

# Hay fever

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## Hay fever

Most people with hay fever are allergic to pollen. The symptoms can make you feel miserable, and at certain times of the year pollen is hard to avoid. But you can get good treatments for hay fever.

We've brought together the best research about hay fever and weighed up the evidence about how to treat it. You can use our information to talk to your doctor and decide which treatments are best for you.

## What is hay fever?

If you have hay fever, you're probably allergic to pollen. That's why you get symptoms in the spring or summer, when there's lots of pollen around.

Hay fever can make you feel miserable. You sneeze a lot and your nose runs or feels blocked. Your eyes may be red, itchy, or watery. And you may have a cough or a wheeze.

You may get hay fever so badly that you can't sleep, can't concentrate, and find it hard to work. And at certain times of the year, pollen is hard to avoid. But there are good treatments that can help you feel better. You may need to start treatment before the pollen season begins and you get symptoms.

Hay fever is also called **seasonal allergic rhinitis** or **intermittent allergic rhinitis**.

## Key points for people with hay fever

- If you have hay fever, you're probably allergic to pollen.
- But some people with hay fever are allergic to mould.
- You get hay fever at times of the year when there's lots of pollen or mould around.
- If you have hay fever, it's a good idea to avoid pollen or mould as much as you can. To find out more, see [Avoiding pollen and mould](#).
- Treatments can help get your hay fever under control.

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- The good news is that hay fever may go away as you get older. <sup>[1]</sup> <sup>[2]</sup>

### Your immune system

To understand why you get an allergy like hay fever, it helps to know a little about your immune system. <sup>[6]</sup>

- Your immune system helps protect you from things that can make you ill, such as bacteria and viruses .
- Your immune system is made up of lots of special cells.
- These cells are found all over your body, including inside your nose, at the back of your throat, and in your lungs.
- The ones in your nose, throat, and lungs are there to protect you against the kinds of infections you can get in your airways, such as colds or pneumonia .

### What happens when you get hay fever?

Hay fever is an allergy. You have an allergy when your immune system has an abnormal reaction to something that's normally harmless. <sup>[6]</sup>



Sneezing is a common symptom of hay fever.

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It mistakes something harmless for something that is harmful and tries to attack it or get rid of it. And this gives you symptoms such as sneezing, a blocked nose, and itchy or watery eyes.

Most people with hay fever are allergic to **pollen**.<sup>[6]</sup> Plants release pollen in the spring, summer, or autumn. Pollen is like a very fine dust and you can't always see it.

But some people with hay fever are allergic to **mould**. Mould is a type of fungus that grows in damp, shady places. Its seeds are called spores. Like pollen, they're carried through the air.

To learn more, see [More about what happens in hay fever](#) .

If you have hay fever, breathing in exhaust fumes, tobacco smoke, or perfume may make your symptoms worse.<sup>[7]</sup>

### More about pollen

There are many different types of pollen. They're released by different plants at different times of the year. You may be allergic to only one type of pollen or to more than one.

- In the UK, most people with hay fever are allergic to grass pollen.<sup>[8]</sup>
- About 1 in 4 people with hay fever are allergic to pollen from silver birch trees.<sup>[8]</sup>
- Some people with hay fever are allergic to pollen from weeds such as dock.<sup>[8]</sup>

To find out more, see [Plants that give you hay fever](#) .

### More about moulds

Outside, you can find mould on rotting logs and fallen leaves, in compost piles, and on certain grasses and weeds. Mould can also grow on damp spots inside your house, such as in your basement. There are thousands of different types of mould, but only a few cause allergies.<sup>[2] [8]</sup>

### When will I get hay fever?

You may be able to help yourself by working out when you're most likely to get symptoms of hay fever. This can help you get ready. For example, you need to start using some treatments before there are pollen or mould spores in the air (to find out more, see [Steroid nasal sprays](#) ).

Exactly what time of year you get symptoms depends on what gives you hay fever.

- Silver birch trees release pollen in April. Other trees tend to release pollen in the spring too.
- The weed pollen season lasts from June to September.

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- Mould spores tend to be in the air in the summer and autumn. Mould spores inside your house may be there all year round. <sup>[8]</sup>
- The further north you live, the later the pollen season tends to start. <sup>[6]</sup>

But in the UK, the main hay fever season starts in the first half of June and continues to about mid-July. <sup>[6]</sup> That's when grass releases most pollen. To learn more, see [Pollen seasons in the UK](#) .

### The pollen count

You've probably heard of **pollen counts** or **pollen forecasts**. They're often mentioned in weather reports on television and radio. They tell you how much pollen is in the air.

The pollen count is measured in grains of pollen per square metre of air, based on an average collected over 24 hours. The count can be low, moderate, high, or very high. The higher it is, the more likely it is that people with hay fever will get symptoms. <sup>[8]</sup> So you can use pollen forecasts to help you predict the days when you're likely to have symptoms. <sup>[7]</sup>

Pollen counts tend to be higher on warm, dry, breezy days and lowest on cold, wet days. <sup>[9]</sup>

Sometimes the pollen forecast is given as a number that indicates the risk of getting hay fever. A rating of 1 to 3 means that there is a low risk that people with hay fever will get symptoms. A rating of 8 to 10 means most people with hay fever will be affected.

The National Pollen and Aerobiology Research Unit monitors pollen in many places in the UK, and you can get forecasts from its website ( <http://www.worcester.ac.uk/discover/pollen-forecast.html> ). You can also get forecasts from The Met Office ( <http://www.metoffice.gov.uk/health/public/pollen-forecast> ).

### What's the worst time of day for pollen?

Pollen levels are usually highest early in the morning, between 5 a.m. and 10 a.m. So that's the worst time to be outside if your hay fever is triggered by pollen.

### Other allergies

People with hay fever tend to be allergic to other things besides pollen or mould. Some of these things may be around all year long. Two of the most common triggers for allergies are **dust mites** and furry pets such as cats and dogs. <sup>[10]</sup> Allergies to these things can give you symptoms similar to hay fever.

If you have an allergy that gives you a runny or blocked nose, or makes you sneeze, your doctor may call it **allergic rhinitis**. <sup>[11]</sup> There are two main types. Many people get both types.

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- **Seasonal** (or intermittent) allergic rhinitis: This is hay fever. You have this if you're allergic to pollen or mould and you get your symptoms only at certain times of the year.
- **Perennial** (or persistent) allergic rhinitis: You have this if you're allergic to something like dust mites or pets. Your symptoms last most of the year.

You can get other allergies along with hay fever. Two common ones are:

- **Eczema**, a condition that makes your skin dry, red, and itchy
- **Asthma**, a condition that makes you cough and wheeze. Most people who have asthma also have allergic rhinitis. <sup>[12]</sup>

To find out more, see our articles on [Eczema](#) , [Asthma in adults](#) , and [Asthma in children](#)

### But isn't it just a cold?

If you have an allergy like hay fever, you may think you have just a cold. The symptoms can be similar. But it's important to know the differences between them, as the treatments are different.

Here are some of the differences between having hay fever and having a cold. <sup>[13]</sup> But if you're not sure which you have, it's a good idea to check with your GP.

	Hay fever	Cold
What causes it?	Usually pollen, but sometimes mould	Viruses
How long does it last?	As long as you breathe in pollen or mould spores, and for some hours afterwards	Several days to a week
When do you get it?	Only during the pollen or mould seasons, in the spring, summer, or autumn.	Any time of the year, but most often in winter
When do symptoms start?	As soon as you breathe in pollen or mould spores	Usually a few days after you have been near someone with a cold
What are the symptoms?	A runny, blocked, or itchy nose, and sneezing, with itchy, red, and watery eyes, itchy throat, or tickly cough	A temperature, feeling achy, sneezing, or a runny or blocked nose

### Hay fever: why me?

Certain things make it more likely that you'll get hay fever. These are called **risk factors**.

You're likely to get hay fever if:

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- Someone else in your family has an allergy. For example, if your mother or father has an allergy, then you're more likely to get hay fever than someone whose parents don't have allergies.
- You have any other allergies, such as an allergy to dust mites.
- You're a teenager or young adult. Hay fever often starts at these ages.<sup>[14]</sup> Most people with hay fever get their first symptoms before they're 20 years old. And about two-thirds of adults who have hay fever are younger than 30.<sup>[3]</sup>
- You're the oldest child in your family.
- You come from a small family.
- You come from a family that has a high income.

Researchers think that people who have these last three risk factors don't get many infections when they're children. This may affect their immune system so that they are more at risk of getting allergies like hay fever.<sup>[15]</sup> <sup>[16]</sup>

Having risk factors doesn't mean you'll definitely get hay fever. It just means that you're more likely to get it.

### What are the symptoms of hay fever?

Hay fever affects people in different ways.

You may:<sup>[2]</sup> <sup>[11]</sup>

- Sneeze a lot
- Have a runny nose
- Have an itchy nose
- Have difficulty breathing through your nose because it's blocked.

These are the main symptoms of hay fever. But if you have a bad bout of hay fever, you may also:<sup>[11]</sup> <sup>[17]</sup>

- Have a dry, tickly cough
- Lose your sense of smell and taste for a short time
- Have itchy, red eyes that water

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- Have an itchy throat and feel itchy on the insides of your ears too
- Feel pressure and pain over your cheeks and forehead
- Feel run-down and weak
- Wheeze and feel short of breath.

You get these symptoms because your **immune system** has an abnormal reaction to pollen or **mould**. This reaction makes the lining of your nose and throat irritated and swollen.



Sneezing is a common symptom of hay fever.

Other parts of your body, such as your lungs and eyes, can also become irritated.

Some people with hay fever also get an itchy, swollen throat when they eat uncooked fruit that has a stone, such as plums and peaches. This tends to happen to people who get hay fever in the spring.

Researchers aren't sure why this is, but this type of fruit may have things in it that trigger your immune system in the same way that pollen does.<sup>[17]</sup> This is called **oral allergy syndrome**. Cooking this type of fruit before you eat it seems to stop this happening.

### **Do hay fever symptoms have a pattern?**

Your hay fever symptoms may change during the day.

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- Some symptoms start suddenly, the moment you breathe in pollen or mould spores. <sup>[18]</sup> Within a few minutes, your nose is likely to start itching and running. You'll probably sneeze a lot too.
- Other symptoms start hours later. Your nose may feel blocked, and you may have difficulty breathing through it. <sup>[11]</sup> About half of all people who have hay fever get this. <sup>[18]</sup>

Your symptoms will probably change from day to day. This is because they're affected by things like how much pollen is in the air (the pollen count) on any given day.

### Is it hay fever or something else?

You may wonder whether you have hay fever or just a cold, but there are differences. To find out more, see [What is hay fever?](#)

You may also find it hard to tell whether you have hay fever or some other **allergy**, such as an allergy to **dust mites** or pets. The symptoms are often similar. If you aren't sure, your doctor can carry out some tests to find out. Remember that if you have hay fever:

- You usually have symptoms only at certain times of the year
- You get them at about the same time every year
- They normally last for a few weeks or months.

If your symptoms last longer than nine months every year, you're probably allergic to other things. When they last for most of the year, doctors say you have **perennial allergic rhinitis** or **persistent allergic rhinitis**. <sup>[2]</sup> <sup>[11]</sup>

Doctors describe hay fever symptoms as being mild, moderate, or severe. <sup>[12]</sup>

- If your symptoms are mild, it means they may be a nuisance but they don't disturb your sleep, work, school, or other activities.
- If your symptoms are moderate or severe, it means they interfere with things like sleep, work, school, leisure activities, or sport.

### How do doctors diagnose hay fever?

If you're not sure that you have hay fever, it's a good idea to see your doctor.

Many people put up with the symptoms of hay fever because they think they have a cold. But if your symptoms make life miserable, it's important to find out if you have hay fever, because treatments can help.



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Doctors can usually tell if you have hay fever by asking about your symptoms and when you get them.<sup>[4]</sup> Your doctor may look inside your nose and down your throat to make sure you don't have any other problems that could be causing your symptoms.

Your doctor may ask if you or people in your family have other types of **allergic conditions**, such as **eczema** or **asthma**.

## Allergy tests

### Skin-prick tests

Your doctor may suggest that you have a skin-prick test.<sup>[4]</sup> If this happens, you'll normally be referred to a specialist centre, although some GPs carry out this test. This test can help your doctor decide:

- If you have an allergy
- What's causing your allergy.

If you have this test, your doctor will check your reaction to tiny amounts of things that cause allergies.<sup>[2]</sup> For example, your doctor may use pollens found where you live.

Your doctor will inject these into the skin on your lower arm or put them on a tiny pinprick made in the skin on your arm or back.

If you're allergic, you may get a small bump around where the test was done (this is called a weal). And the skin around the bump may turn red. If these things happen, you've had a positive reaction.

But it may take some time before you and your doctor can work out what's causing your allergy, because these tests aren't always reliable.<sup>[2]</sup> For example, your skin may not react to the pollen that's causing your hay fever. Or your skin may react to something that doesn't cause hay fever.

Some people may have a reaction but never have any symptoms of hay fever. About half of people with positive skin-prick tests do not get hay fever symptoms. So you should only have a skin-prick test if you get hay fever. Or you might end up with treatments you don't need.

You can get skin-prick tests done at private clinics. But doctors in the NHS don't recommend testing for everybody. Your doctor will probably suggest a skin-prick test only if it's uncertain that you have hay fever. Or, if your treatment isn't working well, you may need to find out which pollen you are allergic to so you can avoid it or have [immunisation against hay fever](#).

### Blood tests

You can also have blood tests to help find out if you have an allergy.<sup>[2] [11]</sup> The tests can show if you have certain **antibodies** in your blood. Your **immune system** usually

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releases antibodies to fight **infections**. But it also releases them if you're having an allergic reaction.

The antibody that the doctor looks for is called specific immunoglobulin E against pollen (or IgE for short). If you have an allergy like hay fever, your immune system makes IgE when you breathe in pollen or mould spores. A blood test can show how much of this antibody is in your blood. An older blood test is known as a RAST test (short for radioallergosorbent test).

### Do I need to see a doctor who's specially trained in allergies?

Your doctor may suggest that you go to a doctor specialising in allergies if:

- You need further tests to find out what is causing your symptoms
- Your hay fever is very bad and treatments haven't worked.

### How common is hay fever?

Hay fever is common, and it's becoming more common.

- Between 15 percent and 20 percent of people in the UK have hay fever. <sup>[6]</sup>
- More and more people have an allergy that gives them a blocked nose or makes them sneeze. <sup>[11]</sup>
- People of all ages and of both sexes have allergies such as hay fever, but more teenagers have allergies than any other age group. <sup>[19]</sup> More than one-third of teenagers in the UK have hay fever. <sup>[20]</sup>

And it's not just hay fever that's becoming more common. Other allergic conditions, such as **eczema** and **asthma**, are becoming more common too. We're not sure why.

One idea is that the increase in allergic conditions is related to people having smaller families and better standards of cleanliness nowadays. These things mean children don't get as many **infections** as they used to. <sup>[15]</sup> <sup>[16]</sup>

Some researchers think that getting lots of infections when you're young helps strengthen your **immune system**. So, if children aren't getting so many infections, their immune systems may be affected. This could make them more likely to get allergies.

There's some evidence that first-born children, children from small families, and children who don't go to nursery are more likely to get allergic conditions such as hay fever. <sup>[21]</sup> This might be because they get fewer infections in the first few years of their life than children from bigger families and children who mix with lots of other children at nursery. Some doctors may advise parents to make sure their young children mix with other children so that they get infections when they're young.

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There's no evidence from research that having your child vaccinated increases their risk of allergic conditions. <sup>[22]</sup>

### What treatments work for hay fever?

There are several good treatments for hay fever. <sup>[27]</sup> Different treatments help with different symptoms, and you may need more than one.

Many people are able to treat their own hay fever with treatments that are available over the counter.

### Key points about treating hay fever

- If you have hay fever, you're **allergic** to pollen (or sometimes **mould** ). So it's worth [avoiding pollen or mould](#) as much as you can, although sometimes it's not possible. But with the right treatment, you shouldn't have to stop doing the things you want to do.
- If your hay fever is very mild, you may choose to have no treatment, especially if the symptoms don't usually last for very long.
- If your hay fever is mild, antihistamine tablets may be all you need to help you feel better. They can help symptoms such as sneezing, a runny and itchy nose, or itchy, red eyes.
- You can also get antihistamine sprays that you breathe in through your nose.
- A steroid nasal spray is worth trying for a runny or blocked nose, especially when antihistamines don't get rid of your symptoms. Ideally you should start this treatment before there's too much pollen (or mould) about.
- Another treatment that can help with a blocked nose is antihistamine tablets taken together with a **decongestant** called pseudoephedrine.
- For itchy, gritty eyes, you can get sodium cromoglycate eye drops. You can ask your pharmacist or doctor about them.
- If your hay fever is very bad, your doctor may recommend steroid tablets. But these can have serious side effects. They're only recommended as a last resort, and you should only take them for a short time.

Which treatments work best? We've looked at the best research and given a rating for each treatment according to how well it works.

For help in deciding which treatment is best for you, see [How to use research to support your treatment decisions](#).

## Treatment Group 1

### Treatments for hay fever

#### Treatments that work

- [Antihistamine tablets](#) : These tablets can help relieve most of the symptoms of hay fever, such as sneezing, a runny nose, and itchy eyes. Some of the most common antihistamines (with brand names) are loratadine (Claritin, Boots Hayfever and Allergy Relief All Day), cetirizine (Zirtek), and fexofenadine (Telfast). You can get some antihistamines as syrups. [More...](#)
- [Steroid nasal sprays](#) : Breathing in steroids through your nose can help with sneezing and a blocked or runny nose. Some examples are beclometasone (Beconase), flunisolide (Syntaris), and fluticasone (Flixonase). [More...](#)
- [Antihistamines and pseudoephedrine](#) : Pseudoephedrine is a decongestant. It can help you breathe more easily if your nose feels blocked. You can take antihistamines and decongestants separately, but one product contains both. Its brand name is Benadryl Plus. [More...](#)

#### Treatments that are likely to work

- [Antihistamine nasal sprays](#) : You can get an antihistamine spray that you breathe in through your nose. It's called azelastine (brand name Rhinolast). [More...](#)
- [Steroid tablets or injections](#) : Steroid tablets are sometimes used for severe hay fever, but only as a last resort. They can have serious side effects, so doctors usually recommend steroid sprays first. Steroid injections have been used in the past to treat hay fever, but they're not used much any more. [More...](#)
- [Leukotriene blockers](#) : These medicines are normally used for asthma rather than hay fever. Research has found they may help you breathe more easily by reducing the swelling inside your nose. Two common ones (and their brand names) are montelukast (Singulair) and zafirlukast (Accolate). [More...](#)

#### Treatments that need further study

- [Nasal spray with ipratropium bromide](#) : This drug may help with a runny nose, which is a common symptom of hay fever. Its brand name is Rinatec. [More...](#)
- [Decongestants](#) : These drugs may reduce the swelling inside your nose so you can breathe more easily. They come as tablets, liquids, and nasal sprays. Common ones (and their brand names) are pseudoephedrine tablets (Non Drowsy Sudafed Decongestant Tablets), oxymetazoline (Vicks Sinex Nasal Spray), phenylephrine (Fenox), and xylometazoline (Otrivine, Sudafed Nasal Spray). [More...](#)

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## Other treatments

We haven't looked at the research on these treatments in as much detail as we've looked at the research on most of the treatments we cover. (To read more, see Our method.) But we've included some information because you may have heard of them or be interested in them.

- [Immunisation against hay fever](#) : This treatment usually involves having a series of injections over a few years. [More...](#)
- [Sodium cromoglicate](#) : This treatment is used to prevent common symptoms of hay fever, such as itchy eyes and a stuffy or runny nose. It comes as a nasal spray (brand names Rynacrom, Vividrin) and eye drops (Hay-Crom Aqueous, Opticrom Aqueous, Vividrin). [More...](#)

## What will happen to me?

The good news about hay fever is that it may get milder as you get older. Sometimes it goes away completely. <sup>[2]</sup>

Studies of children with hay fever show that up to 1 in 5 children outgrow it within 10 years of first getting symptoms. <sup>[1]</sup>

## Severe hay fever

Most people who get hay fever just find it a nuisance. But, for some people, hay fever can make it hard to live a normal life. <sup>[11]</sup> <sup>[23]</sup> It may affect their work, school, sleep, or leisure activities. <sup>[12]</sup>

If your hay fever is severe, you may find: <sup>[24]</sup> <sup>[25]</sup>

- You can't concentrate
- You can't remember things as well as you usually do
- You can't make decisions as quickly as usual
- You're tired and depressed
- You can't sleep well
- You can't work as well as usual.

## Hay fever in children

Hay fever can be especially difficult for children. <sup>[24]</sup>

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Children who have hay fever may:

- Find it hard to concentrate at school
- Lose sleep
- Be distracted, tired, and irritable
- Feel left out if they can't play outside in the summer
- Find that their symptoms make them different from their friends.

### More serious problems

Sometimes hay fever can be linked to more serious problems. Some of the most common ones are listed below. You'll need to see a doctor if any of these happen to you.

#### Asthma and hay fever

If you have hay fever, you may also get **asthma** . Or, if you already have asthma, your symptoms may get worse with hay fever. Doctors don't really know why this is.

The main symptoms of asthma are wheezing, coughing, and finding it difficult to catch your breath when you exercise.

Pollen, the thing that triggers hay fever in most people, can cause asthma symptoms too.

Tell your doctor if you cough or wheeze when you have hay fever. Your doctor may want to find out if you have asthma. If you do, it's important to get treatment.

To find out more, see [Asthma in adults](#) and [Asthma in children](#) .

#### Sinusitis and hay fever

If you have hay fever, you may get sinusitis too. This is when the spaces in the bones behind your nose (your sinuses) become **inflamed** .

If you have hay fever, your nose makes lots of mucus. This extra mucus can get trapped in your sinuses and get **infected** .

If you have sinusitis, you may have: <sup>[2]</sup> <sup>[11]</sup> <sup>[26]</sup>

- Thick, greenish mucus when you blow your nose
- Pain behind your nose and around your eyes
- Headaches
- A **fever**

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- A cough
- A runny nose.

### Ear infections and hay fever

Sometimes hay fever can lead to ear infections, especially in children.

A thin tube connects each of your ears to the back of your nose. The tubes are called eustachian tubes. If there's a lot of mucus in your nose from hay fever, it can get into these tubes and then get into your ears. Then the mucus may get infected. <sup>[2]</sup> <sup>[26]</sup> This is more likely to happen to children. In a child the eustachian tubes are at a flatter angle than they are in an adult, making it harder for the mucus to drain away.

To find out more, see [Ear infections](#) .

### Questions to ask your doctor

Many people with hay fever don't bother going to see their doctor. But it might be worth talking to your doctor about your hay fever and what treatment is right for you, especially if treatments you've tried yourself haven't worked.

Here are some questions you might want to ask.

- How do you know I have hay fever?
- Could it be another type of allergy or a cold?
- Can we find out what's triggering my hay fever?
- What treatment do you recommend?
- What symptoms will the treatment help?
- Does the treatment have any side effects?
- Should I take the treatment before the hay fever season starts?
- Is there anything I can do to avoid the things that trigger my hay fever?
- What can I do when my symptoms are really bad?
- Should I stop taking my medicine for hay fever if I start taking other medicines?
- Will I always have hay fever?
- Will it get better or worse over time?

## Treatments:

### Antihistamine tablets

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[Do they work?](#)

[What are they?](#)

[How can they help?](#)

[How do they work?](#)

[Can they be harmful?](#)

[How good is the research on antihistamine tablets?](#)

This information is for people who have hay fever. It tells you about antihistamine tablets, a treatment used for hay fever. It is based on the best and most up-to-date research.

#### Do they work?

Yes. Antihistamine tablets can help with the symptoms of hay fever. There are lots of different antihistamine tablets.

#### What are they?

Antihistamine tablets calm your body's allergic reaction to pollen. They do this by blocking the effects of a chemical in your body called **histamine**.<sup>[28]</sup> <sup>[29]</sup>

There are two types of antihistamine medicines.

- The older antihistamines may make you drowsy. These are called **sedating** antihistamines.
- The newer ones shouldn't make you drowsy. These are called **non-sedating** antihistamines. Sometimes they're called **non-drowsy** antihistamines.

If you take non-sedating antihistamines, you'll probably need to take them only once a day. But if you take sedating antihistamines, you'll need to take them more often.

You can buy some antihistamine tablets at a pharmacy, but you'll need a prescription from your doctor for others.

This table lists some of the most common antihistamine tablets and their brand names. You don't have to buy the brands listed. You may see them for sale under their generic name or as a pharmacy's own brand. It's worth checking, as these are sometimes cheaper.

Generic name	Brand name	Do you need a prescription?	Does it make you sleepy?
Acrivastine	Benadryl Allergy Relief	No	No
Cetirizine	Zirtek	No	No
Chlorphenamine	Piriton	No	Maybe
Clemastine	Tavegil	No	Maybe



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Desloratadine	Neoclarityn	Yes	No
Fexofenadine	Telfast	Yes	No
Loratadine	Clarityn	No	No
Mizolastine	Mizollen	Yes	No

Some antihistamines also come as syrups.

You'll need to talk to your doctor about the best type of antihistamine for you. If you take one that makes you feel drowsy, you shouldn't drive or use heavy machinery.

### How can they help?

Antihistamines can make you feel better by helping relieve the symptoms of hay fever. If you take them: <sup>[30]</sup>

- You may sneeze less often
- Your nose will feel less itchy
- Your nose will be less runny
- Your eyes will be less itchy and watery.

Most antihistamines won't get rid of the blocked feeling in your nose. But some research suggests that an antihistamine called fexofenadine (Telfast) can help people breathe more easily through their nose. <sup>[31] [32] [33]</sup>

Taking antihistamine tablets may also help you to: <sup>[31] [34] [35]</sup>

- Sleep better
- Be able to carry out your normal activities
- Feel better
- Be able to go to work as usual
- Be able to concentrate better at school if you are a student.

Antihistamine tablets may not help quite as much as [steroid sprays](#) . But antihistamines are usually the treatment that people try first.

### How do they work?

If you have hay fever, you're probably **allergic** to pollen (or sometimes mould). When you breathe in pollen, your **immune system**, which normally helps protect you against illness, thinks that pollen is something that might harm you.

Your immune system makes your body release powerful chemicals to try to protect you. One of these is called **histamine**. Histamine gives you the symptoms of hay fever.

Antihistamines stop the histamine working. So your symptoms should calm down, and you should feel better. <sup>[29]</sup>

### Can they be harmful?

Most of the studies we looked at found that all antihistamines, even non-drowsy ones, make some people feel drowsy. If you get this side effect, you shouldn't drive or use heavy machinery. You may want to try a different antihistamine, or talk to your doctor about which one might be best for you.

We found one large study that compared the side effects of loratadine, cetirizine, acrivastine, and fexofenadine. This study found that loratadine and fexofenadine were much less likely to make people feel drowsy. <sup>[36]</sup>

An antihistamine called promethazine can cause dangerous breathing problems in very young children. <sup>[37]</sup> It isn't recommended for children under 2 years old. <sup>[38]</sup>

### How good is the research on antihistamine tablets?

More than a hundred studies have looked at antihistamine tablets for hay fever. <sup>[30]</sup> It's very clear that they work. They seem to reduce symptoms like a runny nose and sneezing. But they may not help as much with a blocked nose.

As well as looking at people's hay fever symptoms, some of the studies looked at whether antihistamine tablets helped people recover from hay fever enough to get on with their lives. These studies looked at the antihistamines loratadine and fexofenadine. People found it easier to get on with work or their daily activities while taking their antihistamine tablets. <sup>[39]</sup> <sup>[40]</sup> <sup>[41]</sup> <sup>[42]</sup> <sup>[43]</sup>

Three studies have looked at whether it's best to use [antihistamine sprays](#) or tablets. Two studies found that tablets and sprays work about as well as each other. <sup>[44]</sup> <sup>[45]</sup> And one found that sprays may even be slightly better. <sup>[46]</sup> But these studies were quite small, which makes it harder to be certain of the results.

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## Steroid nasal sprays

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# Hay fever

[How do they work?](#)

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[How good is the research on steroid nasal sprays?](#)

This information is for people who have hay fever. It tells you about steroid nasal sprays, a treatment used for hay fever. It is based on the best and most up-to-date research.

## Do they work?

Yes. Steroid nasal sprays can help with symptoms that affect your nose, such as sneezing or a runny, itchy, or blocked nose. But they don't seem to help with red or watery eyes.

## What are they?

The steroids used to treat hay fever are called **corticosteroids**. They help calm your body's allergic reaction to pollen. They're similar to chemicals that your body makes that help to reduce swelling. They are not the same as the anabolic steroids that some athletes and bodybuilders use.

You can buy some steroid nasal sprays over the counter at a pharmacy. For others you'll need a prescription from your doctor. There are several different corticosteroids. Some common ones (with their brand names) are:

- Beclometasone (Beconase)
- Budesonide (Rhinocort Aqua)
- Flunisolide (Syntaris)
- Fluticasone (Flixonase).

You breathe these sprays in through your nose once or twice a day. They seem to work best if you start using them about two weeks before you expect to get hay fever symptoms.

<sup>[47]</sup> If you already have symptoms, you'll need to use the spray for a few days before it helps.

If you have more severe or longer-lasting hay fever, your doctor may suggest you use a steroid spray together with [antihistamine tablets](#) .

## How can they help?

There's lots of research saying that steroid nasal sprays help with hay fever.<sup>[30]</sup> They reduce the symptoms that affect your nose but don't seem to work for red or watery eyes.

Steroid sprays may work better than [antihistamine sprays](#) or [tablets](#) for symptoms that affect your nose.<sup>[48]</sup> <sup>[49]</sup> Steroid sprays also work better than drugs called [leukotriene blockers](#) . But taking antihistamine tablets together with [pseudoephedrine](#) or a leukotriene blocker may help them work just as well as steroid sprays.

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All the different steroid sprays seem to work about the same as each other. <sup>[30]</sup> There's been lots of research comparing steroid sprays, but most of the studies found that there wasn't any difference between them.

### How do they work?

Hay fever is an allergy. Allergies happen when your **immune system** overreacts to something that's harmless for most people. If you have hay fever, your body overreacts to pollen in the air. Using a steroid spray helps to reduce your body's allergic reaction to pollen.

### Can they be harmful?

Steroid nasal sprays can cause side effects, but they're usually mild. Some people get nosebleeds or irritation inside their nose. <sup>[49]</sup>

It's possible for steroid sprays to damage your septum. That's the hard tissue that runs down the middle of your nose, between your nostrils. But this is extremely rare. <sup>[49]</sup>

Steroid sprays aim to cause fewer side effects than **steroids tablets**. <sup>[49]</sup> Taking steroid tablets for a long time can stop children's bones from growing properly or make your bones thinner if you are an adult. It can also give you problems such as **high blood pressure**.

However, the Committee on Safety of Medicines, the UK organisation that decides whether treatments are safe, says that if you use high doses of these sprays for a long time, there's a risk of more serious side effects. The Committee says you should take the lowest dose that works for you. <sup>[50]</sup>

If a child uses steroid nasal sprays for a long time, a doctor should check his or her height. This is to make sure that his or her growth isn't affected. <sup>[50]</sup>

### How good is the research on steroid nasal sprays?

There have been lots of studies looking at steroid sprays as a treatment for hay fever. <sup>[30]</sup>

There's good research showing that they work better than some other treatments for hay fever, such as **antihistamines** and **leukotriene blockers**. <sup>[48]</sup> <sup>[49]</sup>

There's also lots of research looking at whether some steroid sprays work better than others. But they all seem to work as well as each other for easing hay fever symptoms. <sup>[30]</sup>

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## Antihistamines and pseudoephedrine

In this section

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[How good is the research on antihistamines and pseudoephedrine?](#)

This information is for people who have hay fever. It tells you about antihistamines and pseudoephedrine, a treatment used for hay fever. It is based on the best and most up-to-date research.

## Do they work?

Yes. Taking both an antihistamine tablet and a decongestant medicine called pseudoephedrine can help with the symptoms of hay fever. This combination may work well for you if your hay fever symptoms include feeling blocked up and having difficulty breathing through your nose.

But you may have more side effects if you use this combined treatment than if you take [antihistamine tablets](#) on their own. The most common side effects are headaches and problems sleeping.

## What are they?

Antihistamines help with many of the symptoms of hay fever by calming your body's allergic reaction to pollen. They do this by blocking the action of a chemical in your body called histamine. <sup>[28]</sup> <sup>[29]</sup> Some common brand names are Telfast, Zirtek, and Clarityn. To learn more, see [Antihistamine tablets](#) .

Pseudoephedrine is a **decongestant**. This means it works to clear your blocked nose and help you breathe more easily. <sup>[51]</sup> One brand name is Non Drowsy Sudafed Decongestant Tablets. To learn more, see [Decongestants](#) .

In the UK, decongestants such as pseudoephedrine are not often combined with antihistamines in one tablet as a treatment for hay fever. There is one product for hay fever that contains pseudoephedrine and an antihistamine called acrivastine. Its brand name is Benadryl Plus, and you can buy it from a pharmacy. It's unlikely to make you feel sleepy.

## How can they help?

Taking an antihistamine and medicine containing pseudoephedrine can make you feel better by relieving the symptoms of hay fever. It doesn't seem to matter what type of antihistamine you take. Several studies have shown that if you take this treatment: <sup>[52]</sup>  
<sup>[53]</sup> <sup>[54]</sup> <sup>[55]</sup> <sup>[56]</sup> <sup>[57]</sup> <sup>[58]</sup> <sup>[59]</sup>

- You may sneeze less often
- Your nose will feel less itchy

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- Your nose will be less runny
- Your eyes will be less itchy
- Your nose will be less blocked and you will be able to breathe more easily. Most antihistamines taken alone do not help with a blocked nose.

### How do they work?

If you have hay fever, you're probably **allergic** to pollen. When you breathe in pollen, your **immune system**, which normally helps to protect you from illness, reacts as if pollen is something that might harm you.

Your immune system makes your body release powerful chemicals to try to protect you. One of these is called **histamine**. Histamine causes the symptoms of hay fever, such as sneezing, a runny or blocked nose, and red, itchy, or watery eyes.

Antihistamines stop the histamine working. So your symptoms should calm down and you should feel better. <sup>[29]</sup>

But another symptom of hay fever is a blocked nose. This happens because your body's reaction to pollen makes the inside of your nose swell and causes your nose to make lots of mucus. Pseudoephedrine helps this swelling go down so that mucus can drain from your nose. <sup>[60]</sup> And this makes it easier for you to breathe. <sup>[57]</sup>

### Can they be harmful?

Several of the studies we looked at found that people with hay fever were more likely to have side effects if they took both an antihistamine and pseudoephedrine together than if they took only an antihistamine.

The most common side effects from antihistamine and pseudoephedrine tablets are: <sup>[57]</sup>

- Headaches (9 in 100 people had this side effect in studies)
- Difficulty sleeping (11 in 100 people had this side effect).

Some people also get a dry mouth.

Decongestants can cause serious side effects in some people, but this doesn't usually happen at the doses used for hay fever. <sup>[59]</sup> For example, decongestants can:

- Make your **blood pressure** go up
- Make your heart beat faster.

### How good is the research on antihistamines and pseudoephedrine?

There's good research to show that taking an antihistamine together with a medicine called pseudoephedrine can help with hay fever.

Most studies show that combining antihistamines and pseudoephedrine works better than either treatment on its own. <sup>[52] [53] [54] [55] [56] [57] [58] [59] [61] [62]</sup>

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## Antihistamine nasal sprays

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[How good is the research on antihistamine nasal sprays?](#)

This information is for people who have hay fever. It tells you about antihistamine nasal sprays, a treatment used for hay fever. It is based on the best and most up-to-date research.

### Do they work?

Yes. There's a good chance that using an antihistamine nasal spray will help to reduce your hay fever symptoms. The only antihistamine nasal spray you can get in the UK contains the drug azelastine.

Some research suggests that antihistamine nasal spray containing azelastine works just as well as [antihistamine tablets](#) .

### What are they?

Antihistamines are drugs that block **histamine**, one of the chemicals that cause your hay fever symptoms. The only antihistamine that you can get as a spray is called azelastine. You breathe it in through your nose twice a day. The brand name is Rhinolast. You can get it on prescription from your doctor.

### How can they help?

Antihistamines can help you feel better by relieving the symptoms of hay fever. Breathing in a spray that contains azelastine through your nose can help to reduce symptoms such as sneezing and having a runny, itchy, or blocked nose and itchy, watery eyes. <sup>[63]</sup>

Antihistamine nasal spray containing azelastine seems to work as well as antihistamine tablets. <sup>[63]</sup>

### How do they work?

If you have hay fever, you're probably **allergic** to pollen (or sometimes mould). When you breathe in pollen, your **immune system** , which normally helps to protect you against

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illness, reacts to pollen as if it is something that might harm you. It reacts by making your body release powerful chemicals to try to protect you. One of these chemicals is called **histamine**. Histamine gives you the symptoms of hay fever, such as sneezing, a runny or blocked nose, and red, itchy, or tearful eyes.

Antihistamines stop histamine working. <sup>[64]</sup> <sup>[65]</sup> So your symptoms should improve, and you should feel better.

If you breathe the medicine in through your nose, it should start to work straight away, exactly where you get most of your symptoms. <sup>[66]</sup>

### Can they be harmful?

Antihistamine sprays didn't cause any serious side effects in the studies we looked at. <sup>[66]</sup> <sup>[67]</sup> <sup>[68]</sup> <sup>[69]</sup>

The medicine can trickle down your throat and cause a bitter taste in your mouth. But there's less chance of this happening if you don't tilt your head back when you use the spray. It can also irritate your nose. <sup>[70]</sup>

### How good is the research on antihistamine nasal sprays?

We found one summary of the research on azelastine nasal spray. It looked at 22 studies altogether.

Some studies looked at the effect of azelastine nasal spray compared with a dummy treatment (a placebo), while others compared the nasal spray with [antihistamine tablets](#). <sup>[63]</sup>

The summary found that antihistamine nasal spray containing azelastine helps to relieve the symptoms of hay fever, and it seems to work as well as antihistamine tablets.

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## Leukotriene blockers

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[How good is the research on leukotriene blockers?](#)

This information is for people who have hay fever. It tells you about leukotriene blockers, a treatment used for hay fever. It is based on the best and most up-to-date research.

### Do they work?

Probably. These drugs are likely to help with the symptoms of hay fever and let you get on with your daily life.



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But some research has found that they don't work any better than [antihistamine tablets](#) . And they're not as good as [steroid nasal sprays](#) . So doctors don't normally use them as a standard treatment for hay fever.

### What are they?

Leukotriene blockers help reduce swelling inside your nose, which is often one of the symptoms of hay fever.<sup>[71]</sup> Leukotriene blockers are often used to treat [asthma](#) . In the UK, these medicines are not normally used for hay fever.

Leukotriene blockers are also called leukotriene receptor antagonists (LTRAs for short). You need a prescription from your doctor to get them.

Two leukotriene blockers (and their brand names) are:

- Montelukast (Singulair)
- Zafirlukast (Accolate).

Leukotriene blockers can be used at the same time as antihistamines.

### How can they help?

Leukotriene blockers used on their own or with antihistamines are likely to help relieve the symptoms of hay fever. If you take them:<sup>[72]</sup> <sup>[73]</sup>

- You may sneeze less often
- Your nose may be less runny
- Your nose may feel less itchy
- You may feel less blocked up.

If you take leukotriene blockers on their own or with antihistamines, you may also:<sup>[74]</sup>

- Sleep better
- Be able to carry on with your daily activities more normally
- Feel better
- Feel less blocked up during the night.

### How do they work?

If you have hay fever, you're probably **allergic** to pollen. When you breathe in pollen, your **immune system**, which normally helps protect you from illness, reacts as if pollen is something that might harm you.

Your immune system makes your body release powerful chemicals to try to protect you. One of these chemicals is called **leukotriene**. Leukotriene may make the inside of your nose swell up, which makes you feel blocked up.

Leukotriene blockers stop leukotrienes from causing this swelling. And this may help you breathe more easily. <sup>[71]</sup> <sup>[75]</sup>

**Histamine** is another chemical your immune system releases. It causes some of the symptoms of hay fever, such as sneezing, a runny nose, and red, itchy, or watery eyes. Antihistamines stop the histamine working. <sup>[29]</sup> This is why antihistamines are used along with leukotriene blockers to treat hay fever.

### Can they be harmful?

The studies we found didn't mention any serious side effects from leukotriene blockers. <sup>[72]</sup> <sup>[74]</sup> <sup>[76]</sup> Some people get mild side effects, such as headaches or an upset stomach.

Some people taking montelukast have found they get changes in their mood. In severe cases, these can be bad enough for someone to feel suicidal. In the US, the Food and Drug Administration is investigating to find out whether these mood changes were caused by montelukast. <sup>[77]</sup> If you're concerned about any thoughts or feelings you have while you're taking montelukast, talk to your doctor as soon as you can.

### How good is the research on leukotriene blockers?

There's fairly good evidence that leukotriene blockers can help if you have hay fever. You can take them on their own or with antihistamines. Most of the studies have looked at people who take a leukotriene blocker called montelukast (Singulair).

We found a large summary of the research (a **systematic review**) that looked at montelukast. <sup>[78]</sup> We also found another summary that looked at several different leukotriene blockers. <sup>[79]</sup>

Overall, these reviews found that leukotriene blockers work better than a dummy treatment (a **placebo**) for hay fever. <sup>[78]</sup> <sup>[79]</sup>

But leukotriene blockers work no better than [antihistamine tablets](#). <sup>[80]</sup> And they're not as good as [steroid nasal sprays](#). <sup>[81]</sup> <sup>[82]</sup>

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## Steroid tablets or injections

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[How good is the research on steroid tablets or injections?](#)

This information is for people who have hay fever. It tells you about steroid tablets or injections, a treatment used for hay fever. It is based on the best and most up-to-date research.

## Do they work?

If you have hay fever, steroid tablets are likely to help. But they're not usually used as a treatment for hay fever. They can cause severe side effects if you take them for a long time.

The usual way of taking steroids for hay fever is as a spray you breathe in through your nose. To read more, see [Steroid nasal sprays](#) . If tablets are given, they tend to be used for a short time to treat severe hay fever. For example, if you're coming up to important exams and your hay fever is stopping you working, your doctor may suggest steroid tablets.

Steroid injections have been used in the past to treat hay fever. But they're not used much any more.

## What are they?

The steroids used to treat hay fever are called **corticosteroids**. They help calm your body's allergic reaction to pollen. They're similar to chemicals that your body makes that help to reduce swelling. They are not the same as the anabolic steroids that some athletes and bodybuilders use.

One common steroid that you can take as tablets is called prednisolone. You usually take steroid tablets once a day. It's best to take them in the morning, after breakfast.

In the past, steroid injections were sometimes used to treat hay fever. They were given as long-lasting injections, called **depot injections**. You only have one dose, but the drug gets released into your body slowly. This means you only need one injection at the beginning of the hay fever season.

The problem with long-lasting injections is that, if you get side effects, there's no way to get the drug out of your body. If you get side effects from tablets, you can just stop taking them. Steroids can cause serious side effects if you take them for a long time. So doctors don't tend to use steroid injections to treat hay fever any more.

One steroid that can be given as a long-lasting injection is called methylprednisolone (brand name Depo-Medrone).

### How can they help?

The research doesn't give a clear answer on whether steroid tablets work for hay fever. <sup>[83]</sup> <sup>[84]</sup> <sup>[85]</sup> But the studies are quite old and look at steroid tablets that aren't available any more. Doctors think that steroid tablets do work for people with hay fever but that they should only be taken for a short time.

There's lots of research showing that steroid injections help people with hay fever. <sup>[86]</sup> But all the research comes from between 1960 and 1989. That's because injections used to be a more common treatment for hay fever. They're not used much any more.

### How does it work?

Hay fever is an allergy. Allergies happen when your **immune system** overreacts to something that's harmless for most people. If you have hay fever, your body overreacts to pollen in the air (or sometimes mould). Taking a steroid helps to reduce your body's allergic reaction to pollen or mould.

### Can they be harmful?

Steroids can cause some severe side effects, especially if you take them for a long time. The risk of side effects should be smaller if you don't take them for very long.

Your doctor should explain the benefits and risks of steroids before you start taking them. If you get any worrying symptoms while you're taking steroids, see your doctor straight away.

Some people get mood swings when they take steroids, and have very high or low moods. <sup>[30]</sup> <sup>[87]</sup> You may feel tired, nervous, or depressed. Rarely, these side effects can be serious and cause people to think about suicide or see things that aren't really there. <sup>[88]</sup> It's also possible to get these problems when you stop taking steroids.

Taking steroids for a long time can increase your risk of getting weak bones ( **osteoporosis** ). <sup>[30]</sup> <sup>[87]</sup> Steroids can also increase your risk of getting **diabetes** . Some women get irregular periods when they take steroids.

Steroid tablets aren't usually recommended for young children. There's a chance they could slow down your child's growth. <sup>[87]</sup>

Doctors think that taking steroids as a nasal spray is likely to cause fewer side effects than taking them as tablets or injections. To read more, see [Steroid nasal sprays](#) .

### How good is the research on steroid tablets or injections?

Most of the research on steroid tablets and injections for hay fever is quite old. That's because these treatments aren't used very much any more.

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There is good research from the 1960s, 1970s, and 1980s showing that steroid injections work better than a dummy treatment (a **placebo**) for hay fever.<sup>[86]</sup> The research isn't clear whether tablets work.<sup>[83] [84] [85]</sup> But doctors think they can help.

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### Nasal spray with ipratropium bromide

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[How good is the research on nasal spray with ipratropium bromide?](#)

This information is for people who have hay fever. It tells you about nasal spray with ipratropium bromide, a treatment used for hay fever. It is based on the best and most up-to-date research.

#### Does it work?

We don't know if using a nasal spray with ipratropium bromide can make you feel better if you have hay fever. It may help if you have a runny nose, but there isn't enough good evidence for us to know for certain.

#### What is it?

Ipratropium bromide is a medicine that's designed to stop a runny nose. It comes as a spray that you breathe in through your nose. It's often used to treat colds. The brand name is Rinatec.

You need a prescription from your doctor to get this spray.

#### How can it help?

If your hay fever gives you a runny nose, your doctor may suggest that you try ipratropium bromide. But we can't be sure that it works because not enough research has been done.

In one study, the spray helped people with hay fever who had a runny nose.<sup>[89]</sup> It helped them even when there was lots of pollen in the air. But it didn't help with sneezing or with a blocked nose.

#### How does it work?

If you have hay fever, you're probably **allergic** to pollen (or possibly mould). When you breathe in pollen or mould, one of the ways your body reacts is for your nose to make a lot of watery mucus. This is why you get a runny nose.

In theory, ipratropium bromide should help dry up the mucus your nose makes when you have hay fever.<sup>[90]</sup> It does this by blocking the action of a chemical in your body called **acetylcholine**. This chemical tells your body to make more mucus.<sup>[91]</sup>

## Can it be harmful?

The studies we found didn't mention any serious side effects from using this nasal spray. [\[89\]](#) [\[92\]](#)

Some people using the spray said that their nose got too dry. A few people said that their nose felt sore or itchy. And a few said that the mucus from their nose had a little blood in it. You might also get a sore throat, a headache, and nausea. But these side effects are less common. [\[93\]](#)

## How good is the research on nasal spray with ipratropium bromide?

There is no good research to show that using a nasal spray with ipratropium bromide in it will help you feel better if you have hay fever.

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## Decongestants

In this section

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[How good is the research on decongestants?](#)

This information is for people who have hay fever. It tells you about decongestants, a treatment used for hay fever. It is based on the best and most up-to-date research.

### Do they work?

We can't say for sure whether using a decongestant on its own will make you feel better if you have hay fever. There isn't any strong evidence.

There's some evidence that using a decongestant called pseudoephedrine along with another kind of medicine (called an antihistamine) can help if your nose is blocked. To find out more, see [Antihistamines and pseudoephedrine](#) .

### What are they?

Decongestants are medicines that reduce the swelling inside your nose so you can breathe more easily. [\[51\]](#)

You can get decongestants as tablets or as a liquid. You can get many decongestants without a prescription.

You can also get nasal sprays that have a decongestant in them. But we didn't find any studies that looked at using them as treatments for hay fever. You shouldn't use these sprays for longer than a week. After that they can cause 'rebound congestion', which means they can make the problem worse after you stop taking them. [\[94\]](#) [\[95\]](#)

A common decongestant that comes as a tablet is:

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- Pseudoephedrine (Sudafed Decongestant Tablets).

Some common decongestants that come as nasal sprays are:

- Oxymetazoline (Vicks Sinex Nasal Spray, Sudafed Nasal Spray)
- Phenylephrine (Fenox)
- Xylometazoline (Otrivine).

### How can they help?

We don't know if using a decongestant on its own will help if you have hay fever. That's because there isn't any good-quality research.

A decongestant called pseudoephedrine can help relieve the symptoms of hay fever if you take it with another type of medicine called an antihistamine.<sup>[55]</sup> To read more, see [Antihistamines and pseudoephedrine](#). But there's little evidence to tell us if using other decongestants with antihistamines will help.

One small study found that pseudoephedrine reduced congestion for people with hay fever, but phenylephrine didn't.<sup>[96]</sup>

### How do they work?

Having a blocked nose is a common symptom of hay fever. It's part of your body's **allergic reaction** to pollen or **mould**. Your nose swells up, and, at the same time, it makes a lot of watery mucus. If your nose is swollen inside, this mucus can get trapped, blocking your nose.

Decongestants can help the swelling inside your nose go down so the mucus can drain from your nose.<sup>[60]</sup> And this can make it easier for you to breathe.<sup>[56]</sup>

### Can they be harmful?

We don't know if the decongestants used to treat hay fever are harmful on their own. Most studies have looked at people who took a decongestant called pseudoephedrine along with an antihistamine called loratadine. Several of the studies found that people with hay fever were more likely to have side effects if they took a tablet that combined an [antihistamine with pseudoephedrine](#) than if they took an antihistamine on its own.

The most common side effects of the combination were:<sup>[55]</sup>

- Headaches (9 in 100 people had this side effect)
- Difficulty sleeping (11 in 100 people got this side effect).

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And some people said that they got a dry mouth.

Some decongestants can cause serious side effects.<sup>[60]</sup> For example, they can:

- Make your **blood pressure** go up
- Make your heart beat faster.

But at the doses used in medicines for hay fever, they don't usually have any serious side effects.

People with certain medical conditions need to check whether they can take decongestants. These conditions include **angina**, an overactive **thyroid gland** (hyperthyroidism), and **high blood pressure**. Decongestants may cause a type of **stroke** if you have one of these conditions.

Also, if you are taking a medicine called a **monoamine oxidase inhibitor** (MAOI for short), you should not take decongestants.

Check with your pharmacist or your doctor if you are unsure whether decongestants are right for you.

### How good is the research on decongestants?

We can't say whether using decongestants on their own can help if you have hay fever. That's because we didn't find any studies that looked at using them on their own.

But there's good evidence that using the decongestant called pseudoephedrine along with an antihistamine can help. To find out more, see [Antihistamines and pseudoephedrine](#).

We didn't find any studies that looked at using other decongestants with antihistamines.

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## Immunisation against hay fever

In this section

[Does it work?](#)

[What is it?](#)

[How can it help?](#)

[How does it work?](#)

[Can it be harmful?](#)

This information is for people who have hay fever. It tells you about immunisation against hay fever.

### Does it work?

We haven't looked at the research on immunisation in as much detail as we've looked at the research on most of the treatments we cover. (To read more, see Our method.) But we've included some information because you may have heard of this treatment or be interested in it.



# Hay fever

## What is it?

If your hay fever symptoms are very bad and other treatments haven't helped, your doctor may recommend immunisation.<sup>[4]</sup> This treatment usually involves having several injections over a few years.

Hay fever is normally an **allergy** to pollen. Immunisation is designed to help calm your body's allergic reaction to pollen. Immunisation injections don't work straight away. The aim is to get rid of your symptoms in the long term.

Your doctor may call this treatment **immunotherapy**.

When you're treated with immunotherapy you will probably have a series of injections that contain the pollen that triggers your hay fever. These triggers are called **allergens**. Over time, your doctor will increase the dose of allergens in the injection. You'll then have an injection every month for two to three years.

Your doctor may recommend allergy injections if:<sup>[90]</sup>

- Your symptoms are very bad
- Drug treatments haven't helped
- You get symptoms for a long time each year, and you need treatment every day
- You are definitely allergic to pollen. You'll probably have a skin-prick test to make sure. To read more, see [How do doctors diagnose hay fever?](#)

One drawback to these injections is that you have to have them for at least a few years. Also, some people find their hay fever comes back once the treatment is over.

A very small number of people get a severe allergic reaction called **anaphylaxis**.<sup>[97]</sup> Because of this risk, doctors started looking for a safer way to immunise people against hay fever. They have been testing a nasal spray and drops or tablets that you put under your tongue.

Treatment with drops or tablets under your tongue is sometimes called **sublingual immunotherapy** (or SLIT for short). You might be treated for a few months around the time when you usually get hay fever, and you may be able to take it at home.

You can talk with your doctor to decide if immunotherapy is right for you.

## How can it help?

Immunotherapy can help the symptoms of hay fever.<sup>[98]</sup>

One summary of the research looked at 51 studies that included nearly 3,000 people treated with either allergy injections or a dummy treatment (a **placebo**).<sup>[99]</sup> It found that

## Hay fever

people who had allergy injections had fewer symptoms than those treated with a placebo. They only needed to use about half the amount of hay fever treatments they would normally take.

Another summary of the research looked at using drops or tablets under the tongue (sublingual immunotherapy). It found that these treatments can also help people with hay fever, and reduce the amount of medicine they need to take. <sup>[100]</sup>

Not enough research has been done to say whether one type of immunotherapy is better than another. <sup>[101]</sup> <sup>[102]</sup>

### How does it work?

Researchers think that if you have these treatments, over time your body will get used to the thing that triggers your hay fever. And this stops your immune system reacting to it. So your hay fever goes away.

### Can it be harmful?

Mild side effects are common, especially swelling at the place where you had the injection, or tingling, itching, or swelling under your tongue if you have sublingual immunotherapy. <sup>[99]</sup> <sup>[100]</sup> About 1 in 10 people who have injections get irritation or swelling that's severe enough to need treatment. <sup>[99]</sup>

A very small number of people get a severe allergic reaction called **anaphylaxis** after an injection. <sup>[99]</sup> This is most likely to happen in the 30 minutes after you have the injection. This is why you need to have allergy injections in a specialist clinic where emergency treatment is available.

- Symptoms of a severe reaction include a rash, breathing problems, pain in your stomach, and swelling of your tongue or throat.
- If you get any of these symptoms, you need to have treatment urgently.
- Some people have a higher risk of getting anaphylaxis than others.
- People who have **asthma** are especially at risk. <sup>[99]</sup> Immunotherapy isn't usually recommended for people with asthma. <sup>[103]</sup>

A review of the studies found no serious side effects from having immunotherapy with drops or tablets under the tongue. <sup>[100]</sup> But we need more research to know for sure. In a study where children had immunotherapy, about a third got itchy eyes as a side effect. <sup>[104]</sup>

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## Sodium cromoglicate

# Hay fever

In this section

[Does it work?](#)

[What is it?](#)

[How does it work?](#)

[Can it be harmful?](#)

This information is for people who have hay fever. It tells you about sodium cromoglicate, a treatment used for hay fever.

## Does it work?

We haven't looked at the research on sodium cromoglicate in as much detail as we've looked at the research on most of the treatments we cover. (To read more, see Our method.) But we've included some information because you may have heard of this treatment or be interested in it.

## What is it?

Sodium cromoglicate is used to prevent common symptoms of hay fever, such as itchy eyes and a stuffy or runny nose. Depending on which symptoms you have, you can use sodium cromoglicate as a nasal spray (brand names Rynacrom, Vividrin) or eye drops (Catacrom, Hay-Crom Aqueous, Opticrom Aqueous, Vividrin).

## How does it work?

Sodium cromoglicate is a type of drug called a **mast cell stabiliser**. Mast cells are part of your immune system. They release powerful chemicals when you come in contact with pollen or another allergen, and these chemicals cause symptoms of hay fever. Sodium cromoglicate helps prevent mast cells from releasing these chemicals. But you have to use the treatment for a while for it to work. For example, you may need to use the nasal spray for up to two weeks before you notice a difference. <sup>[105]</sup>

## Can it be harmful?

Side effects from sodium cromoglicate are usually mild. You might get burning or stinging when you use the eye drops or nasal spray, but this should go away. <sup>[106]</sup> <sup>[107]</sup> The best time to start using it is before hay fever season begins.

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## Further informations:

### Avoiding pollen and mould

You may not be able to avoid pollen or mould all the time. But there are some things you can do when the chances of getting hay fever symptoms are high.

If you're allergic to pollen:

- Check the pollen forecasts every day during the pollen season. You can find out the pollen count in your area from The Met Office website (

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<http://www.metoffice.gov.uk/health/public/pollen-forecast> ). When the count is high, stay indoors as much as you can and keep your windows closed. <sup>[3]</sup> Remember, pollen levels are highest in the early morning, between 5 a.m. and 10 a.m. (To find out more about pollen forecasts, see [What is hay fever?](#) )

- Don't go outside at all if your symptoms are really bad. <sup>[3]</sup> <sup>[1]</sup>
- Don't dry your clothes outdoors. Pollen in the air may stick to your clothes.
- Keep pollen away from your eyes by wearing sunglasses that fit close to your eyes. <sup>[3]</sup>
- When you're in a car, keep the windows closed and use air conditioning if you have it. <sup>[3]</sup> Some cars have pollen filters.
- If you can, take a holiday by the sea or somewhere where pollen seasons are earlier. <sup>[4]</sup>
- If you've been outside for a while, take a shower to wash the pollen off your skin. <sup>[1]</sup>
- Avoid air pollution, tobacco smoke, and other irritants such as insect sprays, fresh paint, and tar. <sup>[5]</sup> They may make your hay fever symptoms worse.

If you're allergic to mould:

- Avoid places where mould grows, such as moist, shady areas and compost piles
- Try to keep your home dry inside
- Don't cut the grass or rake leaves.

### More about what happens in hay fever

If you have hay fever, this is what happens.

- When you breathe in pollen or mould spores, your immune system makes a mistake. It reacts as if these things are trying to make you ill. <sup>[1]</sup>
- This causes special immune cells to release large amounts of an antibody called **specific immunoglobulin E against pollen** (or IgE for short).

## Hay fever

- This antibody makes your body release large amounts of powerful chemicals. The main ones are **histamine** and different **cytokines** and **leukotrienes**.<sup>[2]</sup>
- These chemicals make the lining of your nose and the back of your throat irritated and swollen. So your nose and throat make lots of watery mucus.
- The chemicals give you the common symptoms of hay fever, such as sneezing, a runny or blocked nose, and itchy, red eyes. If your lungs are affected too, you may also get a cough or wheeze.
- When your body reacts this way, doctors say you're having an **allergic reaction**. You can get a reaction like this quite suddenly.<sup>[1]</sup> Doctors call the thing that makes your immune system react when it doesn't need to an **allergen**. So, for hay fever, pollen or mould spores are the allergens.

### Plants that give you hay fever

If you have hay fever, you're probably **allergic** to pollen. Pollen is released by some plants and looks like dust.

The following table lists some of the plants that are most likely to give you hay fever.<sup>[4]</sup>  
<sup>[8]</sup>

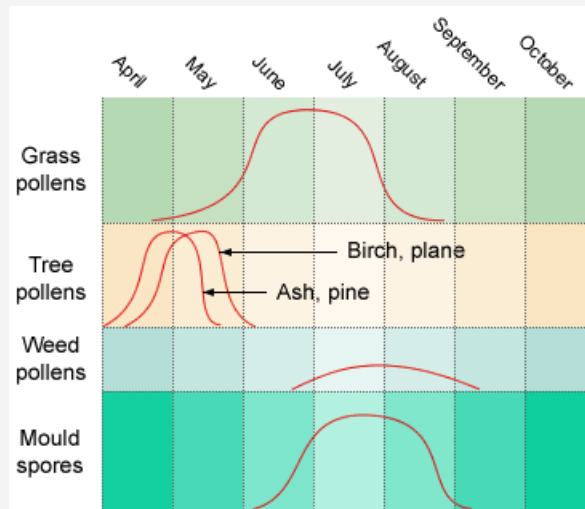
Grasses	Trees	Weeds
Cocksfoot, dogstail, fescue, meadow rye, timothy	Ash, elm, oak, pine, silver birch, willow	Dock, mugwort, nettle, plantains

### Pollen seasons in the UK

The following table shows when different plants are most likely to release pollen or spores.<sup>[4]</sup> Use this as a guide to find out when you are most likely to have symptoms of hay fever. However, plants don't release their pollen at the same time every year. For example, the start of the grass pollen season can change by about 30 days from one year to the next.<sup>[8]</sup>

Also, the timing of the pollen season can vary by about two to three weeks depending on where you are in the UK. The further north you live, the later the pollen season tends to start. This means that you also need to follow pollen forecasts.

# Hay fever



Pollen seasons in the UK.

## Glossary:

### allergy

If you have an allergy to something (such as pollen or a medicine), your body always overreacts to it. The reaction happens because your immune system (your body's system for fighting infection) is too sensitive to it.

### moulds

Moulds are a type of fungus that can cause health problems. For example, you can get infections caused by moulds, or you can have an allergy to moulds. If you're allergic to them, you have an allergic reaction when you breathe in tiny seeds that they give off (called mould spores).

### bacteria

Bacteria are tiny organisms. There are lots of different types. Some are harmful and can cause disease. But some bacteria live in your body without causing any harm.

### viruses

Viruses are microbes (tiny organisms) that need the cells of humans or other animals to exist. They use the machinery of cells to reproduce. Then they spread to other cells in the body.

### infection

You get an infection when bacteria, a fungus, or a virus get into a part of your body where it shouldn't be. For example, an infection in your nose and airways causes the common cold. An infection in your skin can cause rashes such as athlete's foot. The organisms that cause infections are so tiny that you can't see them without a microscope.

### pneumonia

Pneumonia is an infection in your lungs. Anything that causes infections (bacteria, viruses or fungi, for example) can give you pneumonia.

### dust mites

Dust mites are tiny creatures that live in dust. You can't see them with your naked eye. Many people have an allergy to dust mite droppings.

### immune system

Your immune system is made up of the parts of your body that fight infection. When bacteria or viruses get into your body, it's your immune system that kills them. Antibodies and white blood cells are part of your immune system. They travel in your blood and attack bacteria, viruses and other things that could damage your body.

### antibodies

Antibodies are an important part of your immune system. They are proteins made by white blood cells (another part of your immune system). They help destroy bacteria and other agents that cause infections.

### allergic reaction

# Hay fever

You have an allergic reaction when your immune system overreacts to a substance that is normally harmless. You can be allergic to particles in the air you are breathing, like pollen (which causes hay fever) or to chemicals on your skin, like detergents (which can cause a rash). People can also have an allergic reaction to drugs, like penicillin.

## **allergen**

If you have an allergy to something, your body overreacts when you come into contact with it. The thing you are allergic to is called an allergen. Most allergens are harmless to most people. But if you're allergic to something, your body's system for fighting infection (your immune system) is too sensitive to that allergen. It triggers changes that are called allergic reactions. For example, pollen is an allergen for some people. If you're allergic to pollen, you'll sneeze and have runny eyes when pollen is in the air.

## **eczema**

Eczema is a very itchy rash. It may be dark and bumpy and release fluid. Scratching makes it worse. You can get eczema anywhere on your body, but it is most common on the wrists, the insides of the elbows and the backs of the knees. If you have asthma or allergies you are more likely to get eczema than someone who doesn't have these conditions.

## **asthma**

Asthma is a disease of the lungs. It makes you wheeze, cough and feel short of breath. Asthma attacks are caused by inflammation and narrowing of your airways, which makes it hard for air to pass in and out of your lungs.

## **inflammation**

Inflammation is when your skin or some other part of your body becomes red, swollen, hot, and sore. Inflammation happens because your body is trying to protect you from germs, from something that's in your body and could harm you (like a splinter) or from things that cause allergies (these things are called allergens). Inflammation is one of the ways in which your body heals an infection or an injury.

## **fever**

If you have a fever, your body temperature is above 37 degrees Celsius (98.6 degrees Fahrenheit). With a fever you often get other symptoms, such as shivering, headache or sweating. A fever is usually caused by an infection.

## **decongestant**

A decongestant is a medicine that clears up swelling (congestion) in the nose or in the chest. It can unblock a stuffy nose and make it easier to breathe.

## **steroids**

Steroids are a type of chemical. Your body naturally produces steroids, which play a part in many of its processes. For example, steroids are involved in how your immune system, reproductive system and metabolism work. Steroids can also be given as medicines and are used for a number of different conditions: including asthma, rheumatoid arthritis and eczema. Corticosteroids are not the same as the steroids used by some body builders and athletes. Those steroids are called 'anabolic steroids'.

## **high blood pressure**

Your blood pressure is considered to be high when it is above the accepted normal range. The usual limit for normal blood pressure is 140/90. If either the first (systolic) number is above 140 or the lower (diastolic) number is above 90, a person is considered to have high blood pressure. Doctors sometimes call high blood pressure 'hypertension'.

## **blood pressure**

Blood pressure is the amount of force that's exerted by your blood on to your blood vessels. You can think of it like the water pressure in your home: the more pressure you have, the faster and more forcefully the water flows out of the shower. Blood pressure is measured in millimetres of mercury (written as mm Hg). When your blood pressure is taken, the measurement is given as two numbers, for example 120/80 mm Hg. The first, higher, number is called the systolic pressure, and the second, lower, number is the diastolic pressure. The systolic number is the highest pressure that occurs while your heart is pushing blood into your arteries. The diastolic number is the lowest pressure that happens when your heart is relaxing and is not pushing your blood.

## **placebo**

A placebo is a 'pretend' or dummy treatment that contains no active substances. A placebo is often given to half the people taking part in medical research trials, for comparison with the 'real' treatment. It is made to look and taste identical to the drug treatment being tested, so that people in the studies do not know if they are getting the placebo or the 'real' treatment. Researchers often talk about the 'placebo effect'. This is where patients feel better after having a placebo treatment because they expect to feel better. Tests may indicate that they actually are better. In the same way, people can also get side effects after having a placebo treatment. Drug treatments can also have a 'placebo effect'. This is why, to get a true picture of how well a drug works, it is important to compare it against a placebo treatment.

## **systematic reviews**

A systematic review is a thorough look through published research on a particular topic. Only studies that have been carried out to a high standard are included. A systematic review may or may not include a meta-analysis, which is when the results from individual studies are put together.

## **osteoporosis**

Osteoporosis is when your bones get too brittle. It happens if not enough new bone tissue is growing to keep bones strong. If you have osteoporosis, the bones in your body may break easily.

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## diabetes

Diabetes is a condition that causes too much sugar (glucose) to circulate in the blood. It happens when the body stops making a hormone called insulin (type 1 diabetes) or when insulin stops working (type 2 diabetes).

## angina

Angina is the name that doctors use for a pain in your chest that you get when your heart muscle isn't getting enough oxygen.

## thyroid gland

Your thyroid gland is a small organ that sits in your neck, just in front of your windpipe. It sends out a hormone called thyroxine. This acts on receptors within cells. By acting on the receptors it gives the cells a message to speed up their metabolism and work harder.

## stroke

You have a stroke when the blood supply to a part of your brain is cut off. This damages your brain and can cause symptoms like weakness or numbness on one side of your body. You may also find it hard to speak if you've had a stroke.

## monoamine oxidase inhibitors

Monoamine oxidase inhibitors (MAOIs) are a group of medicines that are mainly used to treat depression. They work by increasing the levels of chemicals called neurotransmitters in your brain.

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